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The Code of Federal Regulations is sold by the Superintendent of Documents.

OFFICE OF PERSONNEL MANAGEMENT

5 CFR Part 630

RIN 3206–AN96

Paid Parental Leave

AGENCY: Office of Personnel Management.

ACTION: Interim final rule; request for comments.

SUMMARY: The Office of Personnel Management is issuing an interim final rule to implement the Federal Employee Paid Leave Act, which provides 12 weeks of paid parental leave to certain Federal employees covered by the Family and Medical Leave Act (FMLA). Implementation of the new law also requires changes to OPM's existing FMLA regulations.

DATES: *Effective date:* October 1, 2020.

Comments: Comments must be received on or before September 9, 2020.

ADDRESSES: You may submit comments, identified by docket number and/or Regulatory Information Number (RIN) and title, by the following method:

- *Federal Rulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

All submissions received must include the agency name and docket number or RIN for this document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: Bryce Baker by email at *pay-leave-policy@opm.gov* or by telephone at (202) 606–2858.

SUPPLEMENTARY INFORMATION: The Office of Personnel Management (OPM) is issuing an interim final rule to implement provisions of the Federal Employee Paid Leave Act (subtitle A of title LXXVI of division F of the National Defense Authorization Act for Fiscal Year 2020, Pub. L. 116–92, December 20, 2019), which will hereafter be referred to as ''FEPLA.'' FEPLA makes paid parental leave available to certain categories of Federal civilian employees. These OPM regulations will implement FEPLA provisions dealing with Federal employees covered by the Family and Medical Leave Act (FMLA) provisions in subchapter V of chapter 63 of title 5, United States Code, which were originally enacted through title II of the Family and Medical Leave Act of 1993. (See sections 7602, 7605(a), and 7606 of FEPLA.) The title 5 FMLA provisions, which apply to the majority of civilian Federal employees, are administered by OPM. (See 5 CFR part 630, subpart L.)

FEPLA amended 5 U.S.C. 6382(d) to allow the substitution of up to 12 weeks of paid parental leave for FMLA unpaid leave granted in connection with the birth of an employee's son or daughter or the placement of a son or daughter with an employee for adoption or foster care. (See 5 U.S.C. 6382(a)(1)(A) and (B).) In order to implement FEPLA, OPM is adding a new subpart—subpart Q (Paid Parental Leave)—in part 630 (Absence and Leave) of title 5, Code of Federal Regulations, and making necessary clarifications, changes, and additions in subpart L (Family and Medical Leave).

Effective Dates

Section 7602(c) of FEPLA provides that the amendments to 5 U.S.C. 6382 dealing with paid parental leave are not effective with respect to any birth or placement (for adoption or foster care) occurring before October 1, 2020. Thus, by law, paid parental leave is available to covered employees only in connection with the birth or placement of a son or daughter that occurs on or after October 1, 2020. Since paid parental leave may not be used prior to the birth or placement involved, paid parental leave may not be used for any period of time prior to October 1, 2020.

Section 7605(a) of FEPLA, dealing with the crediting of certain periods of active duty in the uniformed services performed by members of the National Guard or Reserves for the purpose of the 12-month service requirement for FMLA leave eligibility in 5 U.S.C. 6381(1)(B), was effective on December 20, 2019—the date FEPLA was enacted.

Section 7606 of FEPLA, dealing with the coverage of screener personnel employed by the Transportation Security Administration (TSA) under the title 5 FMLA law, was effective on December 20, 2019, the date FEPLA was enacted. However, as noted above, use of paid parental leave by TSA screener personnel under the title 5 FMLA law is available only in connection with the birth or placement (for adoption or foster care) of a son or daughter that occurs on or after October 1, 2020.

Summary of Law

A summary of the paid parental leave provisions incorporated within the title 5 FMLA provisions is provided below.

An employee is eligible for paid parental leave only if he or she is a covered ''employee'' under the definition in 5 U.S.C. 6381(1)(A) and has completed at least 12 months of service as such an employee, as required by 5 U.S.C. 6381(1)(B). (See also 5 CFR 630.1201(b).) We note that the section 6381(1)(A) definition of ''employee'' excludes individuals employed on a temporary or intermittent basis. Unlike the title 29 FMLA eligibility requirements, employees under the title 5 FMLA are *not* required to be employed by a specific employer for at least 12 months or to have at least 1,250 hours of service during the previous 12-month period; instead, they need only 12 months of covered service performed at any time in the past. Also, although title 29 FMLA limits to 12 workweeks the combined FMLA leave entitlement for two parents of the same child who are spouses and who are employed by the same employer, there is no such limitation under title 5 FMLA; instead, each parent-employee has a separate 12-workweek entitlement.

A covered employee may elect to substitute up to 12 weeks of paid parental leave for FMLA unpaid leave granted under 5 U.S.C. 6382(a)(1)(A) or (B) in connection with the occurrence of the birth or placement (for adoption or foster care) of a son or daughter. Such FMLA unpaid leave may be used to care for the newly born or placed son or daughter, and thus allows for bonding between parent and child.

By law, FMLA unpaid leave is generally limited to a total of 12 weeks in any 12-month period. The FMLA unpaid leave is permitted for various

specified purposes, not just a birth or placement event. Thus, use of FMLA unpaid leave for other purposes (*e.g.,* based on the employee's own serious health condition or to care for certain family members with a serious health condition) can—depending on the timeframe in which it is taken—limit the amount of FMLA unpaid leave available for a birth or placement event, and thus limit the amount of paid parental leave that can be substituted for it. (Employees may request to use their annual or sick leave to cover other periods of time outside of FMLA leave periods in accordance with governing statutes and regulations.)

Paid parental leave may be used only ''in connection with the birth or placement involved'' (5 U.S.C. 6382(d)(2)(B)(i))—that is, *after* the occurrence of the birth or placement involved—which results in the employee assuming a ''parental'' role with respect to the newly born or placed child. An employee may take *unpaid* FMLA leave under 5 U.S.C. 6382(a)(1)(A) or (B) before the birth or placement to cover certain activities related to the birth or placement but cannot substitute paid parental leave for those pre-birth/placement FMLA unpaid leave periods. However, an employee could substitute annual leave or sick leave for pre-birth/placement FMLA unpaid leave periods (*e.g.,* sick leave for prenatal care up to the point of birth or in connection with pre-placement activities necessary to allow an adoption to proceed).

Paid parental leave may be used no later than the end of the 12-month period beginning on the date of the birth or placement involved. At the end of that 12-month period, any unused balance of paid parental leave granted in connection with the given birth or placement permanently expires and is not available for future use. No payment may be made for unused paid parental leave or paid parental leave that has expired. Paid parental leave is not considered to be annual leave and thus may not be included in a lump-sum payment for annual leave following separation (5 U.S.C. 6382(d)(2)(D)).

Under the law, an employee may not use any paid parental leave unless the employee agrees in writing, before commencement of the leave, to subsequently work for the applicable employing agency for at least 12 weeks. This 12-week work obligation is triggered once the employee's paid parental leave concludes. The work obligation is statutorily fixed at 12 weeks regardless of the amount of leave used by an employee. An agency head must waive the work obligation if an employee is unable to return to work because of the continuation, recurrence, or onset of a serious health condition (including mental health) of the employee or the newly born/placed child—but only if the condition is related to the applicable birth or placement.

If an employee fails to return to work for the required 12 weeks, the employing agency ''may'' (but is not required to) recover from the employee an amount equal to the total amount of Government contributions paid by the agency under 5 U.S.C. 8906 on behalf of the employee to maintain the employee's health insurance coverage during the period of paid parental leave. This reimbursement provision may not be applied if the employee is unable to return to work based on the conditions that qualify for waiver described in the preceding paragraph. Also, this provision may not be applied if the employee fails to meet the 12-week work obligation for any other circumstance beyond the employee's control (see 5 CFR 630.1705(h)).

Interim Final Rule

OPM is issuing interim final regulations that will provide more detail regarding the implementation of the statutory provisions summarized above.

In order to implement FEPLA, OPM is amending part 630 (Absence and Leave) of title 5, Code of Federal Regulations, by amending subpart L (Family and Medical Leave) and adding a new subpart Q (Paid Parental Leave). OPM is making changes in subpart L to establish how the FMLA provisions will now operate, since the appropriate substitution of paid parental leave for FMLA unpaid leave hinges on having a complete understanding of the standards for granting FMLA unpaid leave. Below we provide a section-by-section explanation of the changes in subpart L and the new provisions in the new subpart Q. Hereafter in this **SUPPLEMENTARY INFORMATION**, references to statutory provisions in title 5 of the United States Code and to regulatory provisions in title 5 of the Code of Federal Regulations will generally be referred to by section number without restating the title 5 reference.

Revisions of FMLA Regulations in Subpart L of 5 CFR Part 630

Subpart L deals with FMLA *unpaid* leave. We are making conforming changes to the provisions dealing with the substitution of paid leave for FMLA unpaid leave. We are also making various changes to clarify the appropriate application of the rules governing FMLA unpaid leave. While paid parental leave may be substituted for FMLA unpaid leave only for periods after birth or placement of a child, employees will still be able to use FMLA unpaid leave for certain purposes related to an anticipated future birth or placement and will be able to substitute annual or sick leave (as appropriate) for such unpaid FMLA leave.

§ 630.1201—Purpose, Applicability, and Agency Responsibilities

The section heading for § 630.1201 is revised to specifically reference agency responsibilities, which are described in an amended paragraph (c). (In current regulations, § 630.1203(g) also addresses agency responsibilities. We believe it is better to address agency responsibilities in one place in the introductory § 630.1201. We are revising § 630.1203(g) to address other matters.) We have added a sentence to paragraph (a) to note that the subpart L regulations also are used in establishing eligibility for paid parental leave under subpart Q. Paragraph (b) is revised to (1) address the coverage of TSA screener personnel, consistent with section 7606 of FEPLA; (2) clarify that temporary and intermittent employees in each listed category of employees are excluded from FMLA coverage; (3) correct obsolete references to the Secretary of Transportation (related to the fact that Coast Guard nonappropriated fund instrumentalities are now located in the Department of Homeland Security); and (4) address the creditability of certain active duty service by employees who are members of the National Guard or Reserves towards the 12-month service requirement, consistent with section 7605(a) of FEPLA.

§ 630.1202—Definitions

Section 630.1202 is amended by (1) removing the definitions for *regularly scheduled, regularly scheduled administrative workweek,* and *tour of duty;* (2) revising the definitions of *administrative workweek, family and medical leave, leave without pay,* and *reduced leave schedule;* and (3) adding new definitions for *birth, placement,* and *scheduled tour of duty.* The new term *scheduled tour of duty* is replacing other terms in order to clarify that the tour referenced in the FMLA regulations is the tour of duty established for purposes of charging leave when an employee is absent. The definition of that term also clarifies that there is no tour of duty during the off-season period for seasonal employees; thus, FMLA unpaid leave and paid parental leave would not apply during such an off-season period. The revised definition of *family and medical leave* includes new

language addressing leave to care for covered servicemembers under section 6382(a)(3), which is being regulated for the first time in a new paragraph (j) in § 630.1203.

The new definition of *placement* clarifies that it refers to a *new* placement. Thus, the term excludes the adoption of a stepchild or a foster child who has already been a member of the employee's household and has an existing parent-child relationship with an adopting parent. This definition of *placement* is consistent with Department of Labor FMLA guidance at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/2005_08_26_1A_FMLA.pdf.* If a foster child is later adopted, the placement has already occurred; there is no new placement with a family that would warrant another use of FMLA leave for the same child.

Also, in the definitions of *birth* and *placement,* we are clarifying that the terms may refer to an anticipated birth or placement. This aligns with the regulation in § 630.1203(d), which provides that FMLA unpaid leave based on birth or placement of a child may be used prior to the actual birth or placement.

§ 630.1203—Leave Entitlement

Section 630.1203(a)(2) is revised to clarify that FMLA leave taken ''because of the placement'' of a son or daughter for adoption or foster care includes the care of the newly placed son or daughter after the placement. This is consistent with the ''care'' language in the provision dealing with FMLA leave for a newly born son or daughter.

Section 630.1203(b) is revised to give an employee who was incapacitated more time to retroactively invoke FMLA leave. The employee must retroactively invoke FMLA leave within 5 workdays—instead of 2 workdays—after returning to work. A parallel deadline is being established for cases of incapacitation in the paid parental leave regulations in subpart Q.

Section 630.1203(d) is revised to delete language that seems to suggest that there is always only one 12-month period in connection with FMLA unpaid leave used in connection with a birth or placement. As provided in section 6382(a)(2) and § 630.1203(d), the entitlement to use FMLA unpaid leave in connection with a birth or placement terminates at the end of the 12-month period beginning on the date of birth or placement. However, if an employee uses FMLA unpaid leave before birth or placement, the associated 12-month FMLA period may end during the 12-month period that begins on the date of birth or placement, and the employee will be eligible to start a new entitlement to FMLA unpaid leave after the prior FMLA period ends. (See section 630.1203(c).) If the employee uses FMLA unpaid leave after obtaining that new entitlement, a new 12-month FMLA period will commence, and the employee will be able to use 12 weeks of FMLA unpaid leave during that period. However, no FMLA unpaid leave for birth or placement purposes may be used after the date that is 12 months after birth or placement. Paid parental leave may be substituted for FMLA unpaid leave used after birth or placement even if there are two 12-month periods involved; however, the total amount of paid parental leave in connection with any given birth or placement is limited to 12 weeks.

For example, after not using FMLA leave for at least 12 months, an employee uses a type of FMLA leave described in § 630.1203(a) (*i.e.,* for birth, placement, serious health condition of employee or certain family members, or exigency related to certain family members being called to active duty) on June 1, 2021, triggering the commencement of a 12-month FMLA period. The total amount of FMLA unpaid leave used during the period from June 1, 2021, through May 31, 2022, may not exceed 12 weeks. The employee uses 5 weeks of FMLA unpaid leave in June and July of 2021. Then the employee has a child born on October 15, 2021. Because of the 12-week limit, the employee would be able to use no more than 7 additional weeks of FMLA unpaid leave before the end of the 12-month FMLA period expiring on May 31, 2022. On October 15, 2021, the employee invokes FMLA leave under § 630.1203(a)(1) based on the birth of, and need to care for, the new child, and uses 7 weeks of FMLA unpaid leave during the October-December 2021 period. However, when the 12-month FMLA period ends on May 31, 2022, the employee may start a new 12-month entitlement to FMLA unpaid leave under § 630.1203(a)(1) to care for the child. If the employee invokes FMLA leave in order to care for the child starting on June 1, 2022, a new 12-month FMLA period would begin at that time. However, the entitlement to FMLA unpaid leave based on the birth of a child ends 12 months after the date of birth; therefore, the employee would have the period from June 1, 2022, through October 14, 2022, to use up to 12 weeks of additional FMLA leave under § 630.1203(a)(1). Since the 12-month period after birth or placement includes parts of two 12-month FMLA periods, the employee could have more than 12 weeks of FMLA unpaid leave under § 630.1203(a)(1); however, only 12 weeks of paid parental leave could be substituted in connection with this particular birth or placement during the 12-month period that begins on the date of the child's birth or placement. Thus, the employee could substitute 12 weeks of paid parental leave for any period during which the employee used FMLA unpaid leave under § 630.1203(a)(1) from October 15, 2021 through October 14, 2022.

Section 630.1203(d) is also revised to address the circumstances under which an employee may use FMLA unpaid leave because of an anticipated birth (under § 630.1203(a)(1)) or because of an anticipated placement (under § 630.1203(a)(2)) prior to the date of the birth or placement. In the case of an anticipated birth, the allowed circumstances involve a pregnancy-related health condition of the expectant mother that prevents her from working or prenatal care provided to that expectant mother by health care providers. This provision applies not only to an employee who is an expectant mother but also to an employee who is the other parent of the expected child, to the extent that other parent is providing necessary care for the expectant mother. We rely on the definition of ''serious health condition'' in § 630.1202 in applying this provision. We recognize that an employee may be able to use FMLA unpaid leave before birth based on § 630.1203(a)(1) or § 630.1203(a)(3) or (a)(4) based on the same set of circumstances. We note that certain statutory and regulatory rules differ based on which provisions are invoked (*e.g.,* certification requirements). In the case of an anticipated placement, the permissible circumstances are limited to those in which the employee must be absent to engage in activities necessary to allow an anticipated adoption or a foster care arrangement to proceed. For example, an employee may be required to attend counseling sessions, appear in court, or consult with an attorney or a doctor.

Section 630.1203(e) is revised to clarify how the entitlement of 12 administrative workweeks of family and medical leave is converted to hours or days, depending on the nature of an employee's scheduled tour of duty and whether leave is charged on an hourly or daily basis. For example, for a regular full-time employee who has 80 hours in the biweekly scheduled tour of duty and who is charged leave on an hourly basis, 12 administrative workweeks translate into 480 hours. (12 weeks = 6 biweekly periods. 6 times 80 hours = 480 hours.)

Paragraph (e) also addresses employees with part-time work schedules or uncommon tours or who are charged leave on a daily basis.

Section 630.1203(f) is revised to clarify how to recalculate an employee's unused balance of family and medical leave if there is a change in an employee's scheduled tour of duty during any 12-month FMLA period that commenced due to use of family and medical leave. For example, if a regular full-time employee has a balance of 120 hours of unused family and medical leave for a 12-month FMLA period that is in progress and then converts to a part-time schedule of 20 hours per week, the balance would be recalculated to be 60 hours. (The new part-time tour is 40 hours biweekly, compared to 80 for a regular full-time tour. 40/80 times 120 equals 60 hours remaining under the new scheduled tour of duty.)

Paragraph (g) in § 630.1203 is revised. The current paragraph (g) deals with agency responsibilities to provide information to employees. This matter is now addressed in a revised § 630.1201(c). The revised paragraph (g) establishes that FMLA unpaid leave linked to a birth event includes leave necessary for an employee who is the birth mother to recover from giving birth, even if the employee is not involved in caring for the son or daughter during portions of that recovery period. (The recovery period would be whatever is specified by a health care provider. The medical standard for a normal recovery period is generally 6 weeks for vaginal birth and 8 weeks for caesarian section, unless complications arise.) The birth event provision in law states that it applies to leave taken ''because of the birth of a son or daughter of the employee and in order to care for such son or daughter'' (section 6382(a)(1)(A)). A birth mother's need to recover from giving birth is clearly ''because of the birth'' of a child.

A new paragraph (i) in § 630.1203 clarifies that FMLA unpaid leave taken to care for a newly born child generally refers to leave covering periods when the parent-employee is in the home with the child or is otherwise involved in spending time with the child (bonding). Such FMLA unpaid leave may also be used to cover short periods away from the child's physical presence to support the care of the child (*e.g.,* buying baby food, diapers, or other supplies). However, leave would not be appropriate if an employee is engaged in activities not directly connected to care of the child or if the employee is outside the local geographic area where the child is located. For example, it is possible that a biological father may not reside in the same home as the birth mother and the new child. The father could receive FMLA unpaid leave and associated paid parental leave only for the care activities described in this paragraph.

A new paragraph (j) in § 630.1203 provides regulations on FMLA leave to care for a covered servicemember, as provided in 5 U.S.C. 6382(a)(3)–(4). OPM has not issued final regulations to address this type of FMLA leave, which was added by Public Law 110–181 in 2008. This FMLA unpaid leave to care for covered servicemembers is subject to special rules, including special rules related to the substitution of annual and sick leave. Since we are revising the leave substitution regulations in § 630.1206 to address changes made by FEPLA, we determined we should address FMLA leave for care of covered servicemembers in subpart L. (See revised § 630.1206(d), which links to § 630.1203(j).) In contrast to other types of FMLA leave, the leave entitlement for FMLA leave to care for a covered service member is 26 administrative workweeks during a single 12-month period. If an employee uses other types of FMLA leave in that single 12-month period, the combined amount of FMLA leave is limited to 26 administrative workweeks. Thus, there could be circumstances where the substitution of paid parental leave for a period of FMLA unpaid leave for birth or adoption purposes would potentially be affected by the 26-workweek limit. (See revised § 630.1203(j)(3).) For example, consider an employee who invokes FMLA unpaid leave to care for a covered servicemember and uses 16 weeks of such leave starting on August 15, 2022. If the same employee gave birth to a child on October 7, 2022, the employee would be able to use only 10 weeks of FMLA unpaid leave under § 630.1203(a)(1) during the single 12-month period from August 15, 2022, to August 14, 2023, since there is a 26-week limit for that single 12-month period. That would also limit the employee to no more than 10 weeks of paid parental leave during that single 12-month period. However, the employee would be able to use FMLA unpaid leave under § 630.1203(a)(1)—and to substitute 2 weeks of paid parental leave for that unpaid leave—after August 14, 2023, and no later than October 6, 2023 (the expiration of the 12-month period following the birth on October 7, 2022)—since only 12 weeks of paid parental leave is available in connection with any given birth or placement (*i.e.,* only 12 weeks of paid parental leave is available for substitution for a 12-month period commencing on the date of birth or placement because the entitlement to FMLA unpaid leave for birth or placement expires at the end of that 12-month period).

§ 630.1206—Substitution of Paid Leave

Section 630.1206, dealing with substitution of paid leave for FMLA unpaid leave, is revised to reflect changes in the law and to clarify certain matters. Section 7602(a) of FEPLA amended section 6382(d) of title 5, United States Code, by making the statutory leave substitution rules that had applied to all types of FMLA leave apply only to FMLA leave granted under subparagraphs (C), (D), and (E) of section 6382(a)(1) and section 6382(a)(3)—which deal with an employee's care of certain family members who have a serious health condition, the incapacitation of an employee due to a serious health condition, a qualifying exigency related to certain family members' Armed Forces deployments, and an employee's care of certain covered servicemembers, respectively. The paid leave substitution rules for FMLA unpaid leave granted under subparagraphs (A) and (B) of section 6382(a)(1)—dealing with a child birth event and with the placement of a child for adoption or foster care, respectively—are now addressed in a new subsection (d)(2) of section 6382. Section 630.1206 addresses paid leave substitution for the various categories of FMLA unpaid leave.

Section 630.1206(b) provides that paid parental leave may be substituted for FMLA unpaid leave based on a birth or placement event as provided in the new subpart Q. Paragraph (b) also addresses the possibility of substituting annual and sick leave for FMLA unpaid leave based on birth or placement. If an employee has not already (before birth or placement) begun a 12-month FMLA period, the employee could have no more than 12 weeks of FMLA unpaid leave between the date of birth or placement and the date that is 12 months after the date of birth or placement. Thus, the 12 weeks of paid parental leave would completely fill any FMLA unpaid leave for birth or placement purposes, and there would be no opportunity to substitute annual or sick leave.

However, if an employee has a 12-month ''FMLA period'' (as established under § 630.1203(c)) in progress at the time of birth or placement, that 12-month FMLA period would end after birth or placement and before the date that is 12 months after the birth or placement. When that 12-month FMLA

period ends, the employee will be eligible to start a new 12-month entitlement to FMLA unpaid leave for birth or placement. If the employee uses FMLA unpaid leave and thus commences a new 12-month FMLA period, the employee will be able to use up to 12 weeks of FMLA unpaid leave during that period. If that new FMLA period begins during the 12-month period following the birth or placement, it would be possible for the employee to use more than 12 weeks of FMLA unpaid leave for birth or placement purposes between the date of birth or placement and the date that is 12 months after the date of birth or placement. In that case, only 12 weeks of paid parental leave could be substituted, since only 12 weeks of paid parental leave is available in connection with any given birth or placement (*i.e.,* only 12 weeks of paid parental leave is available for substitution for a 12-month period beginning on the date of birth or placement because the entitlement to FMLA unpaid leave for birth or placement expires at the end of that 12-month period). An employee would be able to substitute annual or sick leave, as appropriate, for any remaining unpaid FMLA leave.

Section 630.1206(c) addresses the paid leave substitution rules for FMLA leave connected to a serious health condition or an exigency. (See paragraph (3), (4), and (5) of § 630.1203(a), which correspond to subparagraphs (C), (D) and (E) of section 6382(a)(1), respectively.) These rules are consistent with existing rules on paid leave substitution.

Section 630.1206(d) addresses paid leave substitution for FMLA leave to care for a covered servicemember. These rules are consistent with statutory rules on paid leave substitution for this category of FMLA leave. (See section 6382(a)(3), which provides authority to provide 26 weeks of FMLA unpaid leave in a single 12-month period to care for a covered servicemember. There are currently no OPM FMLA regulations regarding this category of leave. In the absence of regulations, statutory provisions of sections 6382–6383 that refer to section 6382(a)(3) are governing.)

Section 630.1206(e) states various general rules related to an employee's entitlement to substitute paid leave. An employee is entitled to elect whether or not to substitute paid leave for FMLA unpaid leave, subject to applicable law and regulation. Thus, an agency may not deny an employee's election to make a substitution permitted under this section. Nor may an agency require an employee to substitute paid leave for FMLA leave without pay. Paragraph (4) adds a statement, not previously included in the FMLA regulations, indicating that an employee may request to use annual leave or sick leave without invoking family and medical leave, and, in that case, the agency exercises its normal authority with respect to approving or disapproving the timing of when the leave may be used. OPM is aware of misconceptions held by some that an employee must invoke FMLA for personal and family health situations for which they could just as easily request sick leave, thereby preserving their FMLA entitlement for any additional needs that may arise. Sick leave, under the circumstances specified by statute and regulation, is an employee entitlement; therefore, an agency generally may not deny an employee's request to take sick leave outside of FMLA for a sick leave purpose authorized at § 630.401. (In certain circumstances—for example, when the timing of a doctor's appointment is not a medical necessity—an agency may disapprove the timing of an employee's sick leave request and require the employee to reschedule.) An employee also has a right to take annual leave, subject to the right of the agency to schedule the time at which annual leave may be taken. Therefore, the agency has the right to deny the scheduling of an employee's annual leave requested outside of an FMLA request, but if the employee's scheduling of FMLA leave is approved, the employee's request to substitute annual leave for FMLA leave without pay may not be denied.

Section 630.1206(f) addresses an employee's obligation to generally give advance notice of the employee's election to substitute paid leave for FMLA unpaid leave. In other words, the general rule is that retroactive substitution is not allowed. However, paragraphs (f)(2) through (f)(4) do address some limited exceptions. Paragraph (f)(4) addresses the retroactive substitution of paid parental leave and links to § 630.1706, which allows retroactive substitution only if an employee is physically or mentally incapacitated. Under section 6382(d)(2)(F)(i), as added by FEPLA, there is a general requirement that an employee agree (in writing), before the commencement of paid parental leave, to perform 12 weeks of work after the use of paid parental leave concludes. Thus, the law anticipates that paid parental leave would be provided on a prospective basis after an employee elects to use the leave and enters into a work obligation agreement.

§ 630.1213—Records and Reports

Section 630.1213, dealing with records and reports in connection with use of FMLA leave, is revised to refer to FMLA leave under the entire subpart rather than refer solely to leave under § 630.1203(a), since a provision on leave to care for covered servicemembers has been added in § 630.1203(j). Also, since § 630.1206 has been revised, the reference to the substitution of paid leave under § 630.1206(b) is being changed to a more general reference to § 630.1206.

New Subpart Q in 5 CFR Part 630

§ 630.1701—Purpose, Applicability, and Agency Responsibilities

Section 630.1701(a) addresses the purpose of the new subpart Q.

Section 630.1701(b) states that subpart Q applies to employees to whom subpart L applies and also to employees who are covered by agency FMLA regulations issued under § 630.1201(b)(3)—for example, certain Department of Defense teachers or employees of certain nonappropriated fund instrumentalities. In the case of such employees, the subpart Q regulations will apply, but the agency may issue any necessary supplemental regulations.

Section 630.1701(c) specifies that agency heads are responsible for proper administration of subpart Q, including the responsibility of informing employees of their entitlements and obligations.

§ 630.1702—Definitions

Section 630.1702 provides that the definitions in the FMLA regulations in subpart L are applicable in subpart Q, to the extent those defined terms are used, except that, to the extent any definitions of terms have been further revised in § 630.1702(b), the provisions of that section shall apply for purposes of subpart Q. Section 630.1702 also provides definitions of additional terms used in subpart Q—*agency, child, birth or placement, FMLA unpaid leave,* and *paid parental leave.*

The definition of *paid parental leave* makes clear that paid parental leave is a type of leave that is used when an employee has a ''parental'' role. A parent who does not maintain a continuing parental role with respect to a newly born or placed child would not be eligible for paid parental leave once the parental role has ended.

§ 630.1703—Leave Entitlement

Section 630.1703 provides various rules related to the entitlement to paid parental leave.

Section 630.1703(a) states that an employee may elect to substitute available paid parental leave for any FMLA unpaid leave granted based on the occurrence of a birth or placement (for adoption or foster care).

Section 630.1703(b) states that the paid parental leave that is available for substitution is 12 administrative workweeks in connection with the birth or placement involved. In other words, an employee can receive up to 12 administrative workweeks of paid parental leave for each birth or placement event. The entitlement to paid parental leave is triggered by the actual occurrence of a birth or placement, which results in the employee having a parental role. Thus, paid parental leave must only be used after the birth or placement has occurred. Paid parental leave continues to be available only as long as the employee has a continuing parental role with respect to the newly born or placed child. Since paid parental leave is substituting for FMLA unpaid leave, use of paid parental leave is constrained by the use of FMLA unpaid leave, which is limited to 12 weeks in any 12-month FMLA period (as established under § 630.1203(c)).

The regulation explains that, with respect to FMLA leave under § 630.1203(a) (corresponding to 5 U.S.C. 6382(a)(1)) that is limited to a total of 12 weeks in any 12-month period, any use of FMLA unpaid leave for a purpose other than birth or placement may affect an employee's ability to use the full 12 weeks of paid parental leave during the 12-month period following a birth or placement. In other words, an employee will be able to use the full amount of paid parental leave only to the extent that there are 12 weeks of available FMLA unpaid leave granted based on birth or placement. For example, if an employee uses 6 consecutive weeks of FMLA unpaid leave based on the employee's own serious health condition, the employee could only use 6 weeks of FMLA unpaid leave based on birth or placement (for which paid parental leave could be substituted) during the 12-month period that began when the employee commenced using FMLA unpaid leave based on the employee's serious health condition.

We note that the 12-week entitlement to paid parental leave under 5 U.S.C. 6382(d)(2) is applied on a per employee basis without regard to movements between different agencies during the 12-month period following a birth or placement. As long as the employee is covered by the title 5 FMLA unpaid leave and paid parental leave provisions while serving in different agencies, the employee would be limited to a total of 12 weeks of paid parental leave per qualifying birth or placement. However, if an employee has received paid parental leave benefits in connection with a given birth or placement under a different paid parental leave authority applicable to Federal employees (*e.g.,* the paid parental leave benefit for legislative branch employees in 2 U.S.C. 1312), and moves to a position covered by the title 5 paid parental leave authority during the 12-month period following birth or placement, there is no basis for limiting or offsetting title 5 paid parental leave benefits based on receipt of leave benefits under another authority.

Section 630.1703(c) and (d) address how the entitlement of 12 administrative workweeks of paid parental leave is converted to hours or days, depending on the nature of an employee's scheduled tour of duty and whether leave is charged on an hourly or daily basis. For example, paragraph (c) gives an example of a regular full-time employee who has 80 hours in the biweekly scheduled tour of duty and who is charged leave on an hourly basis. For such an employee, 12 administrative workweeks translate into 480 hours. (12 weeks = 6 biweekly periods. 6 times 80 hours = 480 hours.) Paragraph (c) also addresses employees with part-time work schedules or uncommon tours. Paragraph (d) addresses employees who are charged leave on a daily basis. For example, for an employee who has 8 workdays each biweekly pay period, 12 administrative workweeks translate to 48 days (12 weeks = 6 biweekly periods. 8 days times 6 biweekly periods = 48 days.).

Section 630.1703(e) addresses how to recalculate an employee's unused balance of paid parental leave if there is a change in an employee's scheduled tour of duty during the 12-month period commencing on the date of the given birth or placement. For example, if a regular full-time employee has a balance of 120 hours of unused paid parental leave for a 12-month period that is in progress and then converts to a part-time schedule of 20 hours per week, the balance would be recalculated to be 60 hours. (The new part-time tour is 40 hours biweekly, compared to 80 for a regular full-time tour. 40/80 times 120 equals 60.)

Section 630.1703(f)(1) provides that an agency may not require an employee to use annual leave or sick leave to the employee's credit before allowing the employee to use paid parental leave, consistent with section 6382(d)(2)(C). Paragraph (f)(1) also states that an employee may request to use annual leave or sick leave without invoking FMLA unpaid leave under subpart L. As discussed earlier in connection with § 630.1206(e), by requesting to use annual or sick leave without invoking FMLA leave, an employee can preserve entitlement to use FMLA unpaid leave at another time and to substitute paid parental leave for that FMLA unpaid leave. For example, an employee who is a birth mother has an entitlement to use sick leave for the post-birth recovery period. By using sick leave to cover the post-birth recovery period, the employee would preserve the ability to invoke FMLA leave and take an additional 12 weeks of paid parental leave at a later time (up to 1 year following birth), thus extending the time the employee can spend with the newly born child. An agency has more control over the scheduling of an employee's annual leave if it is requested independent of FMLA leave. However, if an employee invokes FMLA leave based on the birth or placement of a child, the employee would be entitled to use that FMLA leave for a continuous block of time following the birth or placement and then would be entitled to substitute annual leave for that block of time. (In contrast, FMLA leave based on the birth or placement of a child may not be taken intermittently unless the employee and the employing agency agree otherwise. See section 6382(b) and § 630.1205(a). We note that employees have a right to substitute paid parental leave for FMLA unpaid leave for birth/placement purposes. Thus, if an agency agrees to intermittent use of FMLA unpaid leave for birth/placement purposes, the agency is, in effect, agreeing to intermittent use of paid parental leave leave.)

Section 630.1703(f)(2) provides that paid parental leave may not be used *prior* to the birth or placement involved. This restriction applies even if an employee used FMLA unpaid leave for birth or placement purposes prior to the birth or placement event, as allowed under § 630.1203(d).

Section 630.1703(f)(3) states that an employee with a seasonal work schedule may not use paid parental leave during the off-season period designated by the agency—the period during which the employee is scheduled to be released from work and placed in nonpay status. In other words, paid parental leave cannot be used as a basis for extending a seasonal employee's work season. (For employees appointed under title 5, seasonal employment is addressed in 5 CFR 340.402.)

Section 630.1703(g) provides that, if an employee has any unused balance of

paid parental leave remaining at the end of the 12-month period following the birth or placement involved, the entitlement to the unused leave expires at that time. The unused leave may not be rolled over for use in a future period, nor may a payment be made to the employee for unused paid parental leave that has expired. Paid parental leave may not be considered annual leave for purposes of making a lump-sum payment for annual leave or for any other purpose. (See section 6382(d)(2)(D)(ii) and (iii).)

Section 630.1703(h) addresses an agency's authority to require documentation of leave entitlement and the submission of employee certifications. At an agency's request, an employee must provide the agency with appropriate documentation it deems necessary to establish that the employee's use of paid parental leave is directly connected to a birth or placement. Appropriate documentation could include, but is not limited to, a birth certificate or a document from an adoption or foster care agency regarding the placement. Also, an agency may require that an employee sign a certification attesting that the paid parental leave is being taken in connection with a birth or placement that has occurred. The employee may also be required to attest that the paid parental leave is being used for appropriate purposes, such as the birth mother's recovery from giving birth or to care for the child. (See § 630.1203(g) and (i)). This employee certification may contain a statement in which the employee acknowledges an understanding of the consequences of engaging in fraud by providing a false certification.

The effective date of an employee's election of paid parental leave may not be delayed because an employee has not provided requested certifications. However, the granting of paid parental leave will be considered to be conditional or provisional in nature, subject to the employee providing agency-required documentation or certification within required time frames. The required time frame is usually 15 calendar days from the date of an agency request (if any) for documentation. If it is not practicable for an employee to respond within the 15-day time frame, despite the employee's diligent, good faith efforts, the employee must provide the documentation or certification within a reasonable period of time, but no later than 30 calendar days after the date of the agency's original request. (These time frames are consistent with the documentation requirements for sick leave in 5 CFR 630.405(b), the FMLA leave in 5 CFR 630.1208(h) and the disabled veteran leave in 5 CFR 630.1307(c).) If certain documentation desired by the agency is not readily available, an agency could require an employee to self-certify that the leave is being taken for a valid reason and to commit to providing the documentation as soon as practicable. If the employee does not provide the documentation, the agency could then make a request that triggers the 15-day clock.

If agency-requested documentation or certification is not timely submitted, the agency may invalidate the paid parental leave and convert the employee to an appropriate nonpay status, which would result in a salary overpayment debt owed to the agency. An employee may request that the debt be eliminated by applying annual leave or other appropriate types of paid time off to the employee's credit to the affected periods of time. If the agency determines that an employee fraudulently claimed an entitlement to paid parental leave, the agency may pursue an appropriate disciplinary action, up to and including removal from the Federal service.

§ 630.1704—Pay During Leave

Section 630.1704(a) states the principle that the pay an employee receives when using paid parental leave shall be the same pay the employee would receive if the employee were using annual leave. In other words, agency payroll systems will apply the same rules they apply in determining what pay continues during annual leave.

Section 630.1704(b) provides that paid parental leave is a type of leave that is counted in applying the 8-hour rule in 5 U.S.C. 5545(a) and 5 CFR 550.122(b) that determines whether night pay is payable during periods of leave. This is consistent with the treatment of annual leave.

Section 630.1704(c) provides that the pay received during paid parental leave may not include Sunday premium pay, consistent with the statutory bar in section 624 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277, div. A, § 101(h), October 21, 1998).

§ 630.1705—Work Obligation

Section 630.1705(a) provides that an employee may not use paid parental leave unless the employee agrees (in writing), before the start of paid parental leave, to work for the applicable employing agency for not less than 12 weeks beginning on the first scheduled workday after such leave concludes. This means that paid parental leave may not be provided to an employee unless the employee enters into such an agreement. (An exception to this rule is provided in cases where an employee is incapacitated and unable to enter into such agreement. See § 630.1706.)

Section 630.1705(b) provides rules for interpreting § 630.1705(a). The term ''in writing'' in connection with an employee agreement is defined to include an acceptable electronic signature. The term ''work'' means a period during which the employee is in duty status (*i.e.,* actually working), excluding any periods (paid or unpaid) of leave, time off, or other nonduty status. (Periods of paid time off include paid holidays on which an employee does not work. Periods of other nonduty status include such periods as a furlough or an absence without leave (AWOL).) Any periods of leave, time off, or other periods of nonduty status will extend how long it will take the employee to fulfill the 12-week work obligation. To satisfy the work obligation, the employee must complete 12 weeks of work regardless of how much leave he or she takes before satisfying the obligation.

The term ''applicable employing agency'' means the agency employing the employee at the time use of paid parental leave concludes. The time paid parental leave concludes is the date that is the workday on which an employee finishes using 12 administrative workweeks of paid parental leave during the 12-month period that began on the date of birth or placement. If the employee does not use 12 administrative workweeks of paid parental leave during the 12-month period that began on the date of birth or placement, the day that is the last workday on which an employee takes paid parental leave is considered to be the date the paid parental leave concludes.

Section 630.1705(c) provides instructions on how to convert the 12-week work obligation to hours for employees who are charged leave on an hourly basis (including fractions of an hour). The 12-week work obligation must be converted to hours based on the number of hours in the employee's scheduled tour of duty, consistent with the rules in § 630.1703(c). If an employee's scheduled tour of duty changes before the employee completes the 12-week work obligation, the agency must recalculate the balance of work hours owed, consistent with the rules in § 630.1703(e).

Section 630.1705(d) provides how to convert the 12-week work obligation to days for employees who are charged leave on a daily basis. The days

equivalent of 12 weeks must be derived based on the average number of workdays in the employee's established tour of duty over a biweekly pay period, consistent with the rules in § 630.1703(d).

Section 630.1705(e) provides that, as part of the written agreement described in § 630.1705(a), an employee must agree that, in the event the employee does not complete the 12-week work obligation, the employee will pay the reimbursement amount specified in 630.1705(f) unless the affected employing agency determines the reimbursement requirement will not be applied.

Section 630.1705(f) states the rules for applying the reimbursement requirement when an employee fails to fulfill the work obligation as stated in the employee's written agreement. Under the work obligation, an employee is required to return to work for 12 weeks after paid parental leave concludes. If the employee fails to return to work for 12 weeks, an agency may require a reimbursement equal in amount to the total amount of any Government contributions paid by the agency on behalf of the employee to maintain the employee's health insurance coverage under the Federal Employees Health Benefits Program established under 5 U.S.C. chapter 89 during the period(s) when paid parental leave was used. If an agency determines that reimbursement must be made, it must seek collection of the full amount. There is no authority for a partial waiver of the amount owed.

Since the statutory language about returning to work shows an intent that the employee be continuously employed by the applicable employing agency (*i.e.,* the agency employing the employee at the time use of paid parental leave concludes) while performing the required 12 weeks of work, the regulation also provides that a separation from that agency (excluding an intra-agency reassignment without a break in service) before completion of the required weeks of work will constitute failure to return to work for 12 weeks.

The determination to impose the reimbursement requirement is generally within an agency's sole and exclusive discretion. However, an agency may not impose the reimbursement requirement if the agency determines that the employee is unable to return to work for the required 12 weeks because of (1) the continuation, recurrence, or onset of serious health condition (including mental health) of the employee or the newly born or placed child that is related to birth or placement, or (2) any other circumstance beyond the employee's control. In the case of a newly born or placed child, any serious health condition of the child will be deemed to be related to the applicable birth or placement.

We note that clauses (i) and (iii) of section 6382(d)(2)(F) speak of an employee being ''unable to return to work'' and section 6382(d)(2)(G)(i) speaks of an employee who ''fails to return from paid leave.'' Given the express requirement in section 6382(d)(2)(F)(i) that an employee agree to work for the applicable employing agency for 12 weeks after paid parental leave concludes, we are interpreting the language referenced in the preceding sentence as referring to an employee who has not returned to work for the 12 weeks to which the employee committed in the agreement.

Section 630.1705(g) provides that when making a determination to forbear from requiring a reimbursement, an agency may require an employee to provide certification from a health care provider supporting the employee's claim that a serious health condition is causing the employee to be unable return to work for the required 12 weeks. An agency may require additional examinations and certifications from other health care providers if it deems it necessary. Any such additional examinations will be at the agency's expense.

Section 630.1705(h) states the principles governing determinations that circumstances beyond the employee's control prevent the employee from completing the 12-week work obligation. (See § 630.1705(f)(ii).) These circumstances must be ones that truly compel an employee to not return to work with the employing agency. Circumstances that constitute a matter of employee preference or convenience, such as an employee choosing to stay home to care for a healthy newborn will not suffice.

Section 630.1705(i) provides how to apply the reimbursement requirement described in § 630.1705(f)(1) if more than one agency provided Government contributions on behalf of an employee for that employee's health insurance coverage during periods of paid parental leave. In those cases, the employing agency that employed the employee at the time use of paid parental leave concluded is responsible for informing any other affected agency of the employee's failure to complete the required 12 weeks of work. If an employee fails to complete the 12-week work obligation, any agency that provided Government contributions for health insurance during a period of paid parental leave is responsible for determining whether the reimbursement requirement associated with a period of agency employment should be applied. The agency that employed the employee at the time paid parental leave concludes must first make its reimbursement determination and then inform any other affected agency of its determination.

Section 630.1705(j) provides that each agency is responsible for adopting its own set of policies governing when it will or will not apply the reimbursement requirement described in § 630.1705(f). A single agency-wide set of policies should be in place so that employees within an agency are treated consistently.

Section 630.1705(k) states an imposed reimbursement represents a debt owed to the affected agency and is subject to collection procedures under the Federal Claims Collection Standards in 31 CFR parts 900 through 904.

§ 630.1706—Cases of Employee Incapacitation

Section 630.1706 provides the application of paid parental leave in cases where an employee is incapacitated at the time the use of paid parental leave would be permissible. Paragraph (a) allows the employee to retroactively use paid parental leave. This provision allows for the retroactive election to use paid parental leave under FMLA if the agency determines that an otherwise eligible employee who could have made an election during a past period to substitute paid parental leave and enter a work obligation agreement was physically or mentally incapable of doing so during that past period. Upon this determination, the agency must allow the employee, when no longer incapacitated, to make an election to substitute paid parental leave for applicable FMLA unpaid leave. The employee must make this election within 5 workdays of returning to work. As part of such election, the employee must also sign a work obligation agreement.

Paragraph (b) allows an employee's personal representative to elect, on behalf of the employee, to substitute paid parental leave for applicable FMLA unpaid leave (*i.e.,* approved FMLA leave based on birth or placement of a child). If an agency determines that an otherwise eligible employee is physically or mentally incapable of making an election to substitute paid parental leave and entering into a work obligation agreement, the agency must, upon the request of a personal representative the agency finds acceptable, provide conditional

approval of substitution of paid parental leave for applicable FMLA unpaid leave under § 630.1703(a) on a prospective basis.

An employee covered by paragraph (b) who has been incapacitated would be required—within 5 workdays after the employee returns to work—to enter into a written agreement to (1) meet the work obligation described in § 630.1705 or (2) pay the required reimbursement (if determined to be applicable).

An employee who does not agree to enter into the required work obligation agreement will have any used paid parental leave cancelled and designated as invalid. The invalidated leave that was used based on the conditional approval during the employee's incapacitation must be converted to an unpaid absence(s) as ''leave without pay'' (LWOP). An employee can request to use other types of qualifying paid leave or other paid time off to the employee's credit to cover the LWOP period. If the employee does not elect to use other qualifying periods of paid time off for the LWOP period, the LWOP period represents a debt owed by the employee to which debt collection procedures apply.

§ 630.1707—Cases of Multiple Children Born or Placed in the Same Time Period

Section 630.1707 addresses the application of paid parental leave in cases in which an employee has multiple children newly born or placed in the same time period. If an employee has multiple children born or placed on the same day, that event will be treated as a single event triggering a single entitlement of up to 12 weeks of paid parental leave during the 12-month period following the event. If an employee has one or more children born or placed during the 12-month period following the date of an earlier birth or placement, each subsequent birth or placement event will result in a 12-month period commencing on the date of birth or placement with its own 12-week limit. Any use of paid parental leave during a given 12-month period will count toward that period's 12-week limit. Thus, when such 12-month periods overlap, any use of paid parental leave during the overlap will count toward each affected 12-month period's 12-week limit. The regulations provide an example.

§ 630.1708—Records and Reports

Section 630.1708(a) provides that an agency must maintain an accurate record of an employee's usage of paid parental leave.

Section 630.1708(b) provides that in agency data systems (including timekeeping systems) and in data reports submitted to OPM, an agency must record usage of paid parental leave in the manner prescribed by the Office of Personnel Management.

Executive Order 13563 and Executive Order 12866

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). The Office of Management and Budget has determined that this is an economically significant regulatory action. In accordance with the provisions of Executive Order 12866, this rule was reviewed by the Office of Management and Budget.

A. Statement of Need

OPM is issuing the rule to implement the Federal Employee Paid Leave Act. Currently, Federal employees must take unpaid parental leave unless they use their sick or annual leave during parental leave. This regulation will provide paid parental leave to parents of newly born or placed children in the Federal workforce, serving as a model for the rest of the country.

B. Number of Federal Employees and Economic Impact

This rule applies to Federal civilian employees and the agencies that employ them covered by FMLA provisions in title 5, United States Code. We estimate that approximately 2 million Federal civilian employees will be covered by the interim final rule based on coverage under title 5 FMLA provisions.

This estimate reflects coverage of most Executive Branch employees. Employees of certain Executive Branch agencies such as the U.S. Postal Service, the Postal Regulatory Commission, the Federal Reserve Board, the Federal Aviation Administration, and the Transportation Security Administration (TSA) are excluded, as those agencies are not covered by the title 5 FMLA provisions (except for TSA screener personnel, as discussed in this **SUPPLEMENTARY INFORMATION**). This coverage estimate includes approximately 95,000 employees of nonappropriated fund instrumentalities described in 5 U.S.C. 2105 (*i.e.,* exchanges and other entities that conduct activities for the comfort, pleasure, contentment, and mental and physical improvement of armed forces personnel) in the Department of Defense and the Coast Guard who are covered by the title 5 FMLA provisions based on 5 U.S.C. 2105(c)(1)(E). The estimate excludes employees of the Executive Office of the President, the Executive Residence at the White House, and the official residence of the Vice President, as they are covered by FMLA regulations issued under 3 U.S.C. 412. (See also 3 U.S.C. 401(a)(2)–(4).) (Note: Under 3 U.S.C. 412(c), the regulations implementing the title 3 FMLA provisions may be consistent with the title 5 FMLA regulations.) The estimate excludes approximately 100,000–150,000 employees with temporary appointments or intermittent work schedules, as such employees are excluded from coverage under title 5 FMLA provisions.

The estimate includes approximately 26,000 Judicial Branch employees who are covered by title 5 FMLA provisions. The estimate excludes Legislative Branch employees, except for approximately 1,600 employees of the Government Publishing Office (GPO), as all other Legislative Branch employees are not covered by title 5 FMLA provisions.

While approximately 2 million employees will be covered by this interim final rule, eligibility depends on the occurrence of a birth of an employee's child or placement of a child with the employee for purposes of adoption or foster care. OPM identified annual birth rate data for mothers and fathers (by age group) in National Vital Statistics Reports published by the Centers for Disease Control and Prevention.[1]

OPM then applied that data to Federal civilian employees by gender and by age group to derive estimates of annual birth events. For the population of approximately 1.9 million nonseasonal, full-time permanent Federal employees, OPM estimated that there would be about 51,000 annual birth events (51,248/1,889,147 = 2.71 percent occurrence rate). We note that a birth may be counted as two birth events if both parents are covered by this interim final rule. We also note that this rule may affect birth rates for Federal employees, and that many other factors unrelated to this rule may affect birth rates. For simplicity, we use this figure to estimate annual transfers associated with this rule.

We note that at least two Federal agencies, the Securities and Exchange Commission (SEC) and the Federal Deposit Insurance Corporation (FDIC)

[1] See *https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01.pdf* and *https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf.*

began providing 6 weeks of paid parental leave to their employees—in October 2019 for SEC and January 2020 for FDIC. These SEC and FDIC employees will be covered by the title 5 paid parental leave provisions once they take effect on October 1, 2020. As the employee population at these two agencies represents only about 0.5 percent of the total Federal workforce, estimates here are not adjusted for the fact that these employees have had a lesser paid parental leave benefit for a period of time. The estimates in this regulatory impact analysis are necessarily rough in nature and based on a number of simplifying assumptions, and this has a minor effect on estimates.

OPM used average salaries by gender and by age group to estimate the dollar value of salary, not including employer-paid benefits, for 12 weeks of paid parental leave in connection with a birth event. If each birth event resulted in 12 weeks of paid parental leave for an affected employee, OPM estimated that the total value of the salary paid during parental leave in a year would be approximately $900 million. This equals about 0.54 percent of total basic payroll for the 1.9 million Federal employees in OPM's study population.

However, the 1.9 million employee population used to generate the $900 million annual estimate count was based on nonseasonal, full-time permanent employees in the OPM-managed Governmentwide database and was not adjusted based on employee coverage under title 5 FMLA provisions. For example, it included roughly 100,000 FAA and TSA employees but excluded part-time and seasonal employees. In addition, some employees covered by title 5 FMLA provisions are not in the OPM database. However, the 1.9 million employee population included in this database can reasonably be viewed as representative of the 2.0 million employee population covered by title 5 FMLA provisions. Based on OPM data, the 2.0 million employee population includes approximately 50,000 part-time employees. If we assumed that 50,000 of the 100,000 employees between 1.9 million and 2.0 million were part-time employees who on average had a half-time work schedule, then we would adjust the $900 million estimate to be $935 million in terms of direct salary costs.

This rule also affects an employee following the occurrence placement of a child with the employee for purposes of adoption or foster care. OPM does not have data regarding the extent to which Federal employees have children placed with them for adoption or foster care. A National Council for Adoption report stated the annual number of adoptions in the United States is about 110,000.[2] The Children's Bureau of the Department of Health and Human Services collects data on foster care in the United States. The Children's Bureau reported that approximately 263,000 children entered the foster care system in fiscal year (FY) 2018.[3] That statistic does not account for children who may have multiple placements while continuously in the foster care system. The Children's Bureau also reported that about 62,000 of the children who left the foster care system (25 percent of the total) in FY 2018 were adopted. It also reported that, in 52% of such adoptions (about 32,000), the child was placed with a foster parent. Since the interim final paid parental leave regulations do not consider such an adoption to be a new placement triggering the right to use FMLA leave and paid parental leave, for the purpose of our estimates, those adoptions could be subtracted from the 110,000 annual count of adoptions. Rather than make that adjustment, OPM will assume that the number of placements of foster children already in the foster care system is roughly the same (32,000) so that the effects are offsetting.

If we assume there are annually 110,000 adoptions and 260,000 foster care placements, we have 370,000 total placements. This number can be compared to the number of persons in the United States in the age range of 18 to 64—an age range that roughly corresponds the age range for Federal Government employees. According to the July 2019 census data, the total U.S. population was 328,239,523. Of that total, 16% were 65 and older and another 22.4% were under 18, meaning that the remaining 61.6%, or 202,195,546, were in the 18–64 age range. If we divide 370,000 by 202 million, we derive 0.18 percent, which represents the percentage of U.S. adults ages 18–64 who will have an adoption or foster care placement in a given year. We will assume that the same percentage of Federal employees will have an adoption or foster care placement event in a given year. Applying that percentage (0.18 percent) to the 2 million Federal employees covered by the title 5 FMLA provisions, we estimate that these Federal employees will have 3,600 adoption or foster care placement events annually. In contrast, we estimated above that these Federal employees will have about 51,000 birth events annually (2.71 percent). The combined event percentage would be 2.89 percent (2.71 + 0.18), which represents an increase of about 6.6 percent above the 2.71 percent factor that was used to generate the direct salary cost estimate of approximately $935 million. Thus, we can apply that same 6.6 percent adjustment factor to derive a revised direct salary cost estimate of about $995 million.

OPM also lacks data on Federal employees who might yield custody of a child for adoption or under a surrogacy arrangement at the time of birth, which would not generate a 12-week paid parental leave benefit under the interim final rule. For purposes of this analysis, OPM assumes these cases will not have a significant effect on the overall estimates.

C. Transfers

The payment of paid parental leave generates a ''transfer''—a movement or redistribution of monetary payments from one group to another that does not affect total resources. The Government is transferring payments from the general public to Federal employees. For purposes of these estimates, we assume that the amount of service performed by Federal employees is not affected by this rule. That means that staff will perform the work that would have been performed by employees newly taking parental leave, and that new staff may need to be hired to complete this work. Employees may also receive additional payment in cases where they would have otherwise taken other categories of leave. This implies that total payments to Federal employees will increase, while total services provided by the Federal workforce will remain constant.

In the context of paid parental leave, there are a variety of types of shifts or transfers, depending on what would have otherwise happened if the employee had not received paid parental leave.

- If an employee would have otherwise used leave without pay for periods covered by paid parental leave, there is an immediate transfer from the Government to the employee receiving paid parental leave, but there is no need for other staff to work additional hours to maintain the level of Government service.
- If an employee would have otherwise used annual leave during periods covered by paid parental leave, the employee will have a higher balance of annual leave. The employee could use that annual leave at a later time. If

[2] *https://indd.adobe.com/view/4ae7a823-4140-4f27-961a-cd9f16a5f362.*

[3] *https://www.acf.hhs.gov/sites/default/files/cb/afcarsreport26.pdf.*

so, that has the same effect as paid parental leave replacing work—but the effect is not immediate. The annual leave used at a later time will be in place of work hours; thus, to maintain the same level of service, an agency may need to hire additional staff. On the other hand, the use of paid parental leave instead of annual leave could cause an employee to have a higher annual leave balance at the time of separation from Federal service. In that case, there is no need to hire additional staff, but an agency would have to make a larger lump-sum payment of the unused annual-leave balance upon the employee leaving the Government. Alternatively, an employee with a higher balance of annual leave could hit the maximum amount of accrued annual leave (240 hours for most employees) that an employee can carry over into the next year. If so, excess unused annual leave hours would be lost—some of which might be connected to higher balances resulting from the employee's use of paid parental leave instead of annual leave. In that last scenario, to the extent that the lost excess leave could be viewed as resulting from paid parental leave, the employee would never use the leave and, thus, there would be no need to hire additional staff to cover loss productivity from the use of that leave. We lack data to estimate if and when, and the extent to which, annual leave lump-sum payments may be affected. We invite commenters to submit any available data regarding this matter. So, for those who would have otherwise used annual leave, the transfer could be delayed to a later point during the employee's Federal service or to the point of separation from Federal service, or could never occur due to the annual leave carry-over limit.

- If an employee would have otherwise used sick leave during period covered by paid parental leave, the availability of paid parental leave will cause the employee to have a higher sick leave balance. While we lack data, we believe that Federal employees, particularly birth mothers, use significant amounts of sick leave in connection with a birth event. While it is possible that some of the extra sick leave might be used later by an employee in lieu of leave without pay, we believe that the saved sick leave will generally be fully reflected in the employee's balance at the time of separation. For employees who retire with entitlement to an immediate annuity, unused sick leave is creditable service for the purpose of computing an employee's retirement annuity. So, for this type of shift, the transfer is less than the value of the paid parental leave and is delayed until retirement—and applies only to those with entitlement to an immediate annuity. The Congressional Budget Office estimated that higher annuity payments due to increased sick leave balances at retirement (resulting from availability of paid parental leave) would increase direct spending by less than $500,000 over the 2020–2029 period.[4]
- If an employee would otherwise not have taken leave, other staff will perform the work that would have been performed by that employee, and new staff may need to be hired to complete this work.

While we have identified scenarios in which the transfers could be delayed or even, in the sick leave scenario, not equal to the full value of the paid parental leave, we lack data to estimate the effects those scenarios will have on annual costs during the 5-year timeframe for this regulatory impact analysis.

Employees who, after use of paid parental leave concludes, do not return to duty and complete 12 weeks of work are subject to a possible reimbursement obligation that is based on the cost of agency contributions to health insurance premiums during the use of paid parental leave. However, the employing agency has considerable discretion in imposing the reimbursement requirement and is barred from imposing it in some cases. We expect that the number of employees who do not complete the required 12 weeks of work would be a small percentage. In light of those factors, we do not believe that the reimbursement requirement will have a significant impact of transfer estimates.

In order to estimate transfers, it is necessary to make assumptions about utilization. We lack data to assume that employees will not take full advantage of this paid parental leave. We are aware that there is some data that parental leave is not fully utilized—especially by males. However, the referenced examples of which we are aware do not involve full income replacement, as does the new paid parental leave for Federal employees. Until we have actual experience under the Federal paid parental leave program, we lack data to assert that employees will use less than the full amount of leave that is available. However, we note that the utilization rate substantially impacts transfer estimates.

We recognize that transfers include the cost of government-paid benefits as well as for direct salary costs. These include contributions towards retirement and insurance, Thrift Savings Plan (TSP) contributions, Social Security and Medicare taxes, and paid leave and holidays—which would inflate the total compensation costs by about 50 percent above the estimated direct salary costs of $995 million (*i.e.,* $498 million in benefit costs).

As noted, we lack data to quantify many important aspects of the effects of this rule on payments to Federal staff. In particular, we lack data to forecast utilization of paid parental leave, and the extent to which paid parental leave will replace utilization of sick leave. Accordingly, at this time, we estimate that the value of transfers associated with paid parental leave, including salary and benefits, will be about $1.49 billion ($995 million salary and $498 million benefits) per year before accounting for incomplete utilization of paid parental leave and shifts in leave utilization from sick leave to paid parental leave. We estimate that, after accounting for these factors, the rule will result in transfers of between 60 and 90 percent of this value. This implies annual transfers of between $890 million and $1.3 billion, with a mean estimate of $1.1 billion. This represents under 1 percent of total basic payroll for Federal employees covered by the title 5 FMLA provisions. We request public comment on these estimates.

D. Costs

This interim final rule will affect the operations of over 120 Federal agencies—ranging from cabinet-level departments to small independent agencies. We estimate that this rule will require individuals employed by these agencies to spend time in order to update agency policies and procedures for parental leave, and to devote additional time to manage staffing following increased utilization of parental leave. For the purpose of this cost analysis, the assumed average salary rate of Federal employees performing this work will be the rate in 2020 for GS–14, step 5, from the Washington, DC, locality pay table ($137,491 annual locality rate and $65.88 hourly locality rate). We assume that the total dollar value of labor, which includes wages, benefits, and overhead, is equal to 200 percent of the wage rate, resulting in an assumed labor cost of $131.76 per hour.

In order to comply with the regulatory changes in this interim final rule, affected agencies will need to review the rule and update their policies and procedures. We estimate that, in the first

[4] *https://www.cbo.gov/system/files/2019-12/s1790paygosenate.pdf.*

year following publication of the final rule, this will require an average of 160 hours of work by employees with an average hourly cost of $131.76. This would result in estimated costs in that first year of implementation of about $21,000 per agency, and about $2.5 million in total Governmentwide. In addition, agencies will face ongoing administrative costs (including the administrative costs of administering the program and hiring and training new staff to replace lost hours of work) as Federal employees utilize additional parental leave. We estimate that this will require an average of 520 hours of work per agency by employees with an average hourly cost of $131.76 in each year following publication of the final rule. This would result in estimated annually recurring costs averaging about $69,000 per agency and about $8.2 million in total Governmentwide.

E. Benefits

As discussed previously, we estimate that this rule results in shifts in activity toward the care of young children by Federal employees, and away from other activities. We are unable to quantify the societal value of the benefits of paid parental leave and the societal value of activities foregone as a result of the rule. As a result, we are unable to quantify the net benefit of this shift in activity.

The benefits of increased parental care of newborn and newly placed children enabled by paid parental leave are significant and can be described in qualitative terms. First of all, more Federal employees will be able to spend significant time with newly born or placed children during the first year after birth or placement. Various studies have shown the positive impact of increasing bonding between parent and child. Paid parental leave is not just a benefit for Federal employees, but for American society as a whole. It is a significant benefit that the Federal Government is acting as a role model in providing paid parental leave to its employees. This could have a large impact on other employers, influencing them to offer similar benefits. In turn, parents around the country would be able to spend additional time bonding with children.

Various studies indicate that paid parental leave may improve the health of the birth mother and the child. Paid parental leave will allow parents to preserve annual and sick leave balances for future family needs. In general, in our society, women have traditionally borne greater responsibility for caring for children and sacrificing work careers. This paid parental leave benefit is gender neutral and also neutral between the birth mother and the other parent. This may help change expectations that parents have regarding the role each will play in raising children. It is expected to result in fathers having more involvement in child care, which could provide significant societal benefits, such as stronger marriage and family relationships. We believe that this benefit may support greater income equality between men and women by reducing the length of interruptions in the woman's career—by making it easier to have a child and then return to work. Such a policy may also address women's declining labor force participation that has been dropping since 2000, which has potential to positively impact the U.S. economy.

While it is difficult to demonstrate cause and effect when it comes to adopting one new employee benefit, there are surveys and other indications that a family-friendly paid parental leave policy can help make an employer more attractive to job seekers, increase job satisfaction, increase employee morale and engagement, increase the likelihood of a birth mother returning to work, and reduce turnover (*i.e.,* increase retention). While some assert that paid parental leave will produce monetary benefits that offset gross transfers, we do not believe it is possible to attribute reductions in spending on recruitment efforts, training costs, and related effects to a single factor. This new benefit will likely improve the desirability of Federal employment, and likely increase the quality of Federal employees, leading to improved services for the general public. Reduced turnover can have a positive effect on agency productivity and reduce the burdens on other employees while reducing recruitment costs. At the same time, the use of paid parental leave may temporarily increase the burdens on other employees.

F. Regulatory Alternatives

For the most part, the paid parental leave benefit is established by statute. The amount of leave is set by statute at 12 weeks for each eligible employee. By statute, it applies equally to both parents. The statute requires that paid parental leave be provided via substitution for FMLA unpaid leave for purposes of birth and placement for adoption or foster care. The statute requires a fixed 12-week work obligation after paid parental leave concludes but allows agencies to decide whether to apply a reimbursement requirement (linked to Government contributions toward health insurance premiums), subject to specified limitations. The statute requires that OPM ''shall prescribe regulations necessary for administration'' of the title 5 FMLA leave provisions, including the paid parental leave provisions (5 U.S.C. 6387)

In many cases, the OPM regulations are explanatory in nature. OPM regulations do fill in some policy gaps, but any regulatory decisions had a marginal impact on transfers, costs, and benefits. OPM considered alternatives with respect to the documentation that would be required from employees seeking paid parental leave. One option was to require documentation in all cases and to specify the necessary types of documentation in regulation (*e.g.,* birth certificate, adoption agency letter). The other option was to give the employing agency flexibility to determine what, if any, documentation would be required. Under this option, the regulation would give the employing agency authority to require submission of documentation and/or an employee certification when it felt it was necessary.

In considering these options, we weighed the burden on supervisors and employees versus the need to ensure that appropriated monies are properly used and to prevent fraud. We recognized that in some cases, a supervisor may have personal knowledge of an employee's situation and a paperwork requirement would be unnecessary. In general, we believe the risk of fraud is low—especially in birth cases. We determined that the regulations should not mandate documentation in all cases, but should give agencies, as a necessary tool, the authority to require submission of documentation and/or employee certifications. We also determined that the employing agency should be responsible for determining what documentation is sufficient proof of entitlement to paid parental leave.

G. List of Studies Considered

AEI-Brookings Working Group on Paid Family Leave, ''Paid Family and Medical Leave: AN ISSUE WHOSE TIME HAS COME''—May 2017, *https://www.brookings.edu/wp-content/uploads/2017/06/es_20170606_paidfamilyleave.pdf*

AEI-Brookings Working Group on Paid Family Leave, ''The AEI-Brookings Working Group Report on Paid Family and Medical Leave: CHARTING A PATH FORWARD''—September 2018, *https://www.aei.org/wp-content/uploads/2018/09/The-AEI-Brookings-Working-Group-Report-on-Paid-Family-and-Medical-Leave.pdf*

American Action Forum, ''Analysis of AEI-Brookings Working Group Proposal on Paid Parental Leave''—June 2017, *https://www.americanactionforum.org/research/analysis-aei-brookings-working-group-proposal-paid-parental-leave/*

American Action Forum, ''The Fiscal Implications of the FAMILY Act: How New Paid Leave Benefits Increase Leave-Taking and Drive Up Estimated Program Costs''—March 2019, *https://www.americanactionforum.org/research/the-fiscal-implications-of-the-family-act-how-new-paid-leave-benefits-increase-leave-taking-and-drive-up-estimated-program-costs/*

Institute for Women's Policy Research, ''Paid Parental Leave in the United States: What the data tell us about access, usage, and economic and health benefits''—January 23, 2014, *https://iwpr.org/wp-content/uploads/wpallimport/files/iwpr-export/publications/B334-Paid%20Parental%20Leave%20in%20the%20United%20States.pdf*

National Partnership for Women & Families, ''Leading on Leave: Companies With New or Expanded Paid Leave Policies (2015–2019)''—August 2019, *https://www.nationalpartnership.org/our-work/resources/economic-justice/paid-leave/new-and-expanded-employer-paid-family-leave-policies.pdf*

Pew Research Center, ''Americans Widely Support Paid Family and Medical Leave, but Differ Over Specific Policies''—March 2017, *https://www.pewsocialtrends.org/2017/03/23/americans-widely-support-paid-family-and-medical-leave-but-differ-over-specific-policies/*

Urban Institute, ''Paid Family Leave in the United States: Time for a New National Policy''—May 2017, *https://www.urban.org/sites/default/files/publication/90201/paid_family_leave_0.pdf*

H. Supporting Data Tables

TABLE 1a—PROJECTED BIRTH EVENTS FOR FEMALE FEDERAL EMPLOYEES BASED ON NATIONWIDE MATERNITY RATES

Age group	Number of Federal employees *	Nationwide maternity rates (%)	Projected number of female Federal employees with birth event
18–19	246	3.23	8
20–24	11,345	6.80	771
25–29	40,412	9.53	3,851
30–34	77,780	9.97	7,755
35–39	106,474	5.26	5,601
40–44	102,229	1.18	1,206
45–49	109,753	0.09	99
Total	448,239		19,291

Source of Federal employee counts: FedScope—July 2019; * nonseasonal full-time permanent employees.

Source of maternity rates: National Vital Statistics Reports: Volume 68, number 13, Births: Final Data for 2018 (11–27–19)—See Tables 2 or 5 for birth rates for mothers. Those tables do not show data for higher female age ranges. *https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_13-508.pdf.*

TABLE 1b—PROJECTED BIRTH EVENTS FOR MALE FEDERAL EMPLOYEES BASED ON NATIONWIDE PATERNITY RATES

Age group	Number of Federal employees *	Nationwide paternity rates (%)	Projected number of male Federal employees with birth event
18–19	461	1.04	5
20–24	16,493	5.16	851
25–29	53,526	8.74	4,678
30–34	103,909	10.38	10,786
35–39	142,268	6.91	9,831
40–44	132,208	2.86	3,781
45–49	147,679	0.96	1,418
50–54	165,670	0.29	480
55+	317,653	0.04	127
Total	1,079,867		31,957

Source of Federal employee counts: FedScope—July 2019; * nonseasonal full-time permanent employees.

Source of paternity rates: National Vital Statistics Reports: Volume 66, number 1, Births: Final Data for 2015 (1–5–17)—see Table 17 for birth rates for fathers. *https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01.pdf.*

TABLE 2—AVERAGE SALARY FOR FEMALE AND MALE EMPLOYEES

Age group	Female average salary	Male average salary
18–19	$32,808	$36,196
20–24	46,172	49,799
25–29	59,505	61,333
30–34	73,703	74,974
35–39	82,216	84,045
40–44	86,048	89,418

TABLE 2—AVERAGE SALARY FOR FEMALE AND MALE EMPLOYEES—Continued

Age group	Female average salary	Male average salary
45–49	88,324	92,057
50–54		96,413
55+		99,732
Weighted average salary	73,070	77,979
Hourly rate	35.01	37.36

Source of Federal employee average salary by age group: FedScope—July 2019; nonseasonal full-time permanent employees.

Weighted average salary computed separately for females and males by multiplying number of projected births in age group (from Table 1a) by respective average salary, summing those products for each age group, and dividing that sum by the number of birth events (*i.e.,* weighted average weighted based on number of births by age group). Then derive average hourly rate by dividing weighted average salary by 2087.

TABLE 3—PROJECTED SALARY COST AND BIRTH EVENT PERCENTAGE

	Females	Males
Hourly rate	$35.01	$37.36
No. hours of leave (12 weeks)	480 hours	480 hours
Total cost by gender	$324,181,397	$573,078,490
Total Combined Cost (direct salary costs)	$897,259,886	
Total annual birth events	51,248	
Total employees (all ages)*	1,889,147	
Percentage of all employees* having a birth event in a year	2.71%	

Source of number of Federal employees (all ages): FedScope—July 2019; * nonseasonal full-time permanent employees.

TABLE 4—PROJECTED SALARY COST FOR BIRTH AND PLACEMENTS

Total number of covered employees* (all ages)	2,000,000
Percentage of all employees* having a birth event in a year	2.71%
Total annual birth events	54,200
Percentage of all employees* having an adoption/foster care placement event in a year	0.18%
Total annual placement events	3,600
Combined percentage of all employees* have a birth or placement event	2.89%
Total annual birth/placement events	57,800
Total direct salary costs	$995 million

Source of number of Federal employees (all ages): FedScope—July 2019 and other data sources for employees not in FedScope; *full-time and part-time permanent employees.

Executive Order 13771

This interim final rule is considered an Executive Order 13771 (82 FR 9339, February 3, 2017) regulatory action. We estimate that this rule generates $5.9 million in annualized costs, in 2016 dollars, discounted at seven percent over a perpetual time horizon relative to 2016.

Regulatory Flexibility Act

I certify that this regulation will not have a significant economic impact on a substantial number of small entities because it will apply only to Federal agencies and employees.

Waiver of Proposed Rulemaking

OPM is issuing this rulemaking as an interim final rule and has determined that, under the Administrative Procedure Act (APA), 5 U.S.C. 553(b)(B), it would be impracticable and contrary to the public interest to delay a final regulation until a public notice and comment process has been completed. For the same reasons, under the Civil Service Reform Act's parallel rulemaking provision, 5 U.S.C. 1103(b)(3), OPM is waiving general notice of proposed rulemaking because the interim rule is temporary in nature and necessary to be implemented expeditiously as a result of an emergency.

The conclusion of a public notice and comment period before the rule is finalized would be impracticable because it would impede due and timely execution of OPM's functions. Specifically, OPM issuing an interim final rule is required by events and circumstances beyond its control, which were not foreseen in time to comply with the usual notice and comment procedures. On December 20, 2019, the Federal Employee Paid Leave Act (the Act) was enacted, in which Congress set the effective date for the new paid parental leave rules as October 1, 2020, just 9 months after enactment. This was insufficient time for the notice and comment rulemaking process because of the need for OPM to conduct a detailed regulatory impact analysis accounting for costs, benefits, and alternatives, and because the regulation requires significant changes to personnel processing and payroll systems at Federal agencies. To properly prepare for the congressionally-mandated effective date of the new rules on paid parental leave, agencies need this regulation to be promulgated with sufficient lead time to create internal policies and procedures, to modify their payroll systems, to retrain their human resources staff, and to provide effective notice to eligible employees.

In addition to the short window for preparing this rule, OPM has had to unexpectedly devote its pay and leave policy resources to coordinate Federal employee policies in response to the COVID–19 public health emergency during this time period, including implementing the Families First Coronavirus Response Act, Public Law 116–127 and the Coronavirus Aid, Relief, and Economic Security Act, Public Law 116–136, and advising agencies on the optimal use of pay, leave, and incentives to respond to the national emergency. As such, 9 months was an insufficient amount of time for OPM to publish a notice of proposed rulemaking seeking public comments and a final rule responding to comments with enough lead time for agencies to prepare for the October 1, 2020 deadline.

The conclusion of a public notice and comment period before the rule is finalized would be also be contrary to public interest, because it would result in serious damage to important interests. If OPM does not have regulations in place with sufficient lead time for over 120 Federal agencies to implement their policies and procedures, and payroll systems, eligible employees may not be able to claim their paid parental leave benefits on October 1, 2020. Likewise, ensuring that expectant parents have complete information about paid parental leave policies will allow them to prepare for taking paid parental leave. Thus, OPM has determined that the rule must be implemented expeditiously as a result of an emergency.

For these reasons, OPM has determined that the public notice and participation that the law ordinarily requires would, in this case, be impracticable and contrary to the public interest and that good cause exists for waiving proposed rulemaking and delaying its solicitation of comments from the public until after it issues an interim final rule. The interim final rule is temporary in nature, and OPM will promulgate a final rule as soon as practical after receiving public comments on the interim final rule.

Congressional Review Act (CRA)

This action is subject to the CRA, 5 U.S.C. 801 *et seq.,* and OPM will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is a ''major rule'' as defined by 5 U.S.C. 804(2).

Paperwork Reduction Act Requirements

This rule does not impose any new reporting or record-keeping requirements subject to the Paperwork Reduction Act.

List of Subjects in 5 CFR Part 630

Government employees.

Office of Personnel Management.

Alexys Stanley,

Regulatory Affairs Analyst.

For the reasons stated in the preamble, OPM amends part 630 of title 5 of the Code of Federal Regulations as follows:

PART 630—ABSENCE AND LEAVE

■ 1. Revise the authority citation for part 630 to read as follows:

Authority: 5 U.S.C. chapter 63 as follows: Subparts A through E issued under 5 U.S.C. 6133(a) (read with 5 U.S.C. 6129), 6303(e) and (f), 6304(d)(2), 6306(b), 6308(a), and 6311; subpart F issued under 5 U.S.C. 6305(a) and 6311 and E.O. 11228, 30 FR 7739, 3 CFR, 1974 Comp., p. 163; subpart G issued under 5 U.S.C. 6305(c) and 6311; subpart H issued under 5 U.S.C. 6133(a) (read with 5 U.S.C. 6129) and 6326(b); subpart I issued under 5 U.S.C. 6332, 6334(c), 6336(a)(1) and (d), and 6340; subpart J issued under 5 U.S.C. 6340, 6363, 6365(d), 6367(e), and 6373(a); subpart K issued under 5 U.S.C. 6391(g); subpart L issued under 5 U.S.C. 6383(f) and 6387; subpart M issued under sec. 2(d), Pub. L. 114–75, 129 Stat. 641 (5 U.S.C. 6329 note); subpart P issued under 5 U.S.C. 6329c(d); and subpart Q issued under 5 U.S.C. 6387.

Subpart L—Family and Medical Leave

■ 2. Amend § 630.1201 as follows:
■ a. Revise the section heading;
■ b. Add a new sentence at the end of paragraph (a);
■ c. Revise paragraph (b)(1);
■ d. Amend paragraph (b)(3)(iii) by removing ''Transportation'' and adding ''Homeland Security'' in its place;
■ e. Amend paragraph (b)(4) by removing ''Transportation'' and adding ''Homeland Security'' in its place; and
■ f. Revise paragraph (c).

The revisions and addition read as follows:

§ 630.1201 Purpose, applicability, and agency responsibilities.

(a) * * * This subpart also provides the basis for determining the periods of unpaid leave for which paid parental leave may be substituted under subpart Q of this part, which must be read with this subpart to establish eligibility.

(b) *Applicability.* (1) Except as otherwise provided in paragraph (b)(2) of this section, this subpart applies to any employee who—

(i)(A) Is defined as an ''employee'' under 5 U.S.C. 6301(2); or

(B) Is an employee carrying out screening functions who is appointed under section 111(d) of Public Law 107–71 (49 U.S.C. 44935 note); and

(ii) Has completed at least 12 months of service (excluding any service as an employee identified in paragraph (b)(2) of this section) at any time as—

(A) An employee, as defined under 5 U.S.C. 6301(2);

(B) An employee of the Veterans Health Administration appointed under title 38, United States Code, in occupations listed in 38 U.S.C. 7421;

(C) A ''teacher'' or an individual holding a ''teaching position,'' as defined in section 901 of title 20, United States Code;

(D) An employee identified in section 2105(c) of title 5, United States Code, who is paid from nonappropriated funds;

(E) An employee carrying out screening functions who is appointed under section 111(d) of Public Law 107–71 (49 U.S.C. 44935 note); or

(F) An employee performing covered active duty (as defined in 5 U.S.C. 6381(7)(B)) that interrupts civilian service due to a qualifying call or order for deployment to a foreign country as a member of the National Guard or Reserves, to the extent that such active duty is not already creditable service under paragraphs (A) through (E) of this paragraph (b)(1)(ii).

* * * * *

(c) *Agency responsibilities.* The head of an agency having employees subject to this subpart is responsible for the proper administration of this subpart, including the responsibility of informing employees of their entitlements and obligations.

■ 3. Amend § 630.1202 as follows:
■ a. Revise the definition for ''*Administrative workweek*'';
■ b. Add a definition for ''*Birth*'';
■ c. Revise the definition for ''*Family and medical leave*'';
■ d. Revise the definition for ''*Leave without pay*'';
■ e. Add a definition for ''*Placement*'';
■ f. Revise the definitions for ''*Reduced leave schedule*'';
■ g. Remove the definitions for ''*Regularly scheduled,*'' and ''*Regularly scheduled administrative workweek*'';
■ h. Add a definition for ''*Scheduled tour of duty*''; and
■ i. Remove the definition for ''*Tour of duty*''.

The revisions and additions read as follows:

§ 630.1202 Definitions.

* * * * *

Administrative workweek means the scheduled tour of duty within the workweek established by the agency for an employee under the definition of ''administrative workweek'' in 5 CFR 610.102.

* * * * *

Birth means the delivery of a living child. When the term ''birth'' is used in connection with the use of leave under this subpart before birth, it refers to an anticipated birth.

* * * * *

Family and medical leave means an employee's entitlement to 12 administrative workweeks (or 26 administrative workweeks in the case of leave under § 630.1203(j)) of unpaid leave for certain family and medical needs, as prescribed under sections 6381 through 6387 of title 5, United States Code.

* * * * *

Leave without pay means an approved absence from duty in a nonpay status during an employee's scheduled tour of duty.

* * * * *

Placement means a new placement of a son or daughter with an employee for adoption or foster care. For example, this excludes the adoption of a stepchild or a foster child who has already been a member of the employee's household and has an existing parent-child relationship with an adopting parent. When the term ''placement'' is used in connection with the use of leave under this subpart before placement has occurred, it refers to a planned or anticipated placement.

Reduced leave schedule means a daily or weekly work schedule under which the usual number of hours actually worked during the employee's scheduled tour of duty are reduced as a result of the increased use of leave.

Scheduled tour of duty means the regular work hours in an established full-time or part-time work schedule during which an employee is charged leave or time off when absent. A seasonal employee is not considered to have such a tour during off-season periods when the employee is scheduled to be released from work and placed in full-time nonpay status.

* * * * *

■ 4. Amend § 630.1203 as follows:

■ a. Revise paragraph (a)(2);

■ b. Amend paragraph (b) by removing ''2 workdays'' and adding ''5 workdays'' in its place;

■ c. Revise paragraphs (d), (e), (f), and (g); and

■ d. Add paragraphs (i) and (j).

The revisions and additions read as follows:

§ 630.1203 Leave entitlement.

(a) * * *

(2) The placement of a son or daughter with the employee for adoption or foster care and the care of such son or daughter.

* * * * *

(d)(1) The entitlement to leave under paragraphs (a)(1) and (2) of this section shall expire at the end of the 12-month period beginning on the date of birth or placement. Leave for a birth or placement must be concluded within this 12-month period.

(2)(i) Leave taken under paragraphs (a)(1) and (2) of this section, may begin prior to the actual date of birth or placement for adoption or foster care.

(ii) Use of leave under paragraph (a)(1) of this section before the date of birth is limited to situations in which an employee is using the leave—

(A) Because of the employee's serious health condition related to the anticipated event of the employee giving birth to a son or daughter; or

(B) In order to care for the birth mother of the employee's expected son or daughter in connection with the birth mother's serious health condition related to pregnancy.

(iii) Use of leave under paragraph (a)(2) before the date of placement is limited to situations in which the employee must be absent to engage in activities necessary to allow an anticipated adoption or a foster care arrangement to proceed.

(e)(1) Family and medical leave under this subpart is available to full-time and part-time employees. The entitlement to a total of 12 administrative workweeks of leave in connection with leave granted under paragraph (a) of this section must be converted to hours or days, as provided in paragraphs (e)(2) and (e)(3) of this section. Leave under paragraph (a) allows an employee to be absent during the employee's scheduled tour of duty established for leave charging purposes. Such leave is not applied to days designated as holidays and other nonworkdays when the employee would be excused from duty.

(2) For employees who are charged leave on an hourly basis (including fractions of an hour), the 12 administrative workweeks referenced in paragraph (a) of this section must be converted to hours based on the number of hours in the employee's scheduled tour of duty (at the time the 12-month period of leave eligibility commences) subject to the following rules:

(i) For a regular full-time employee with 80 hours in the scheduled tour of duty over a biweekly pay period, the hours equivalent of 12 administrative workweeks is 480 hours.

(ii) For a full-time employee with an uncommon tour of duty (as defined in § 630.201 and described in § 630.210), the hours equivalent of 12 administrative workweeks is derived by multiplying 6 times the number of hours in the employee's biweekly scheduled tour of duty (or 6 times the average hours if the biweekly tour hours vary over an established cycle). For example, if an employee has an uncommon tour consisting of six 24-hour shifts (144 hours) per biweekly pay period, the amount would be 864 hours.

(iii) For a part-time employee, the hours equivalent of 12 administrative workweeks is derived by multiplying 6 times the number of hours in the employee's scheduled tour of duty over a biweekly pay period. For example, if an employee has a part-time scheduled tour of duty that consists of 40 hours in a biweekly pay period, the amount would be 240 hours.

(3) For employees who are charged leave on a daily basis, the days equivalent of 12 administrative workweeks must be derived based on the average number of workdays in the employee's established tour of duty over a biweekly pay period. For example, if an employee had 8 workdays each biweekly pay period, the days equivalent of 12 administrative workweeks would be 48 days.

(f) If there is a change in an employee's scheduled tour of duty during any 12-month period that commenced due to use of family and medical leave, and the employee has not used the full allotment of family and medical leave during such 12-month period, the remaining balance of family and medical leave must be recalculated based on the change in the number of average hours in the employee's scheduled tour of duty. For example, if a regular full-time employee has a balance of 120 hours of unused family and medical leave for a 12-month period that is in progress and then converts to a part-time schedule of 20 hours per week, the balance would be recalculated to be 60 hours. (Since the old schedule was 80 hours biweekly or an average of 40 hours weekly, the new part-time tour is half of the former full-time tour. 40/80 times 120 equals 60.)

(g) Leave taken because of the birth of a son or daughter of the employee, as described in paragraph (a)(1) of this section, includes leave necessary for an employee who is the birth mother to recover from giving birth, or for an employee who is the other parent to care for the birth mother during her recovery period, even if the employee is not involved in caring for the son or

daughter during portions of that recovery period.

* * * * *

(i) Leave taken in order to care for a newly born or placed son or daughter, as described in paragraphs (a)(1) and (a)(2) of this section, generally refers to leave covering periods when the parent-employee is in the home with the child or is otherwise involved in spending time with the child (bonding). It may include short periods away from the child's physical presence to purchase supplies needed to care for the child (*e.g.,* buying baby food, diapers, or other supplies). Leave based on the ''care'' language in paragraph (a)(1) of this section would not be appropriate if an employee is not engaged in activities directly connected to care of the child—for example, if the employee is physically located outside the local geographic area where the child is located.

(j)(1) For family and medical leave granted in connection with care of a covered servicemember under 5 U.S.C. 6382(a)(3) and (4), the leave entitlement is 26 administrative workweeks in a single 12-month period. This leave applies to an employee who is the spouse, son, daughter, parent, or next of kin of a covered servicemember and who provides care for the covered servicemember. In applying this leave, the definitions in 5 U.S.C. 6381(8) through (12) must be applied.

(2) The entitlement of 26 administrative workweeks of leave described in paragraph (j)(1) of this section must be converted to hours or days, consistent with the methodologies set forth in paragraph (e) of this section. Any recalculation of the unused leave entitlement due to a change in the employee's scheduled tour of duty must be made in a manner consistent with the methodology described in paragraph (f) of this section.

(3) If an employee receives leave under this paragraph (j) and leave under paragraph (a) of this section during the single 12-month period, the combined amount of leave in that period may not exceed 26 administrative workweeks. With respect to the single 12-month period, an employee who uses more than 14 weeks of leave under this paragraph (j) will not be able to use the full allotment of 12 administrative workweeks in connection with leave granted under paragraph (a) of this section. The leave granted under this paragraph (j) will not count against the employee's 12-week FMLA entitlement in any other 12-month period, as established under paragraph (a) of this section. For example, consider an employee who invokes family and medical leave to care for a covered servicemember and uses 16 weeks of such leave starting on August 15, 2022. If the same employee gave birth to a child on October 7, 2022, the employee would be able to use only 10 weeks of family and medical leave under § 630.1203(a)(1) during the single 12-month period from August 15, 2022, to August 14, 2023, since there is a 26-week limit for that single 12-month period. That would also limit the employee to no more than 10 weeks of paid parental leave during that single 12-month period. However, the employee would be able to use family and medical leave under § 630.1203(a)(1) after August 14, 2023, and before the expiration of the 12-month period following the birth on October 6, 2023, and could substitute (to the extent possible) any remaining amount of the employee's 12 weeks of paid parental leave, or substitute annual leave or sick leave, if applicable.

(4) In addressing requests to use intermittent leave, or leave on a reduced leave schedule, in connection with leave under this paragraph (j), an agency is subject to the same rules that govern such requests for leave under paragraphs (a)(3) and (a)(4) of this section. (See 5 U.S.C. 6382(b) and § 630.1205.)

(5) Employees who seek to use leave under this paragraph (j) are subject to the same notification and scheduling requirements that apply to employees receiving leave under paragraph (a)(1) through (4) of this section in parallel circumstances. (See 5 U.S.C. 6382(e)(1) and (2) and § 630.1207.)

(6) An agency may require that a request for leave under this paragraph (j) be supported by a medical certification, as provided by 5 U.S.C. 6383(f).

■ 5. Revise § 630.1206 to read as follows:

§ 630.1206 Substitution of paid leave.

(a) *Leave without pay.* Except as otherwise provided in this section, family and medical leave taken under § 630.1203(a) must be leave without pay.

(b) *Leave connected to birth or placement.* (1) For family and medical leave taken under § 630.1203(a)(1) or (2) (corresponding to subparagraphs (A) and (B) of 5 U.S.C. 6382(a)(1), respectively), an employee may elect to substitute—

(i) Up to 12 administrative workweeks of paid parental leave in connection with the occurrence of a birth or placement, as provided in subpart Q of this part; and

(ii) Any annual or sick leave to the employee's credit for such family and medical leave not covered by paid parental leave.

(2) The annual or sick leave to the employee's credit under paragraph (b)(1)(ii) of this section consists of the following:

(i) Accrued or accumulated annual or sick leave under subchapter I of chapter 63 of title 5, United States Code (or equivalent annual or sick leave under another authority), without regard to the normal limitations on the use of sick leave;

(ii) Advanced annual or sick leave approved under the same terms and conditions that apply to any other agency employee who requests advanced annual or sick leave, except that the normal limitations on the use of sick leave are not applicable; and

(iii) Annual leave donated to an employee under the Voluntary Leave Transfer Program or the Voluntary Leave Bank Program, consistent with subparts I and J of this part, or equivalent donated annual leave under another authority.

(c) *Leave connected to serious health condition or exigency.* For family and medical leave taken under § 630.1203(a)(3), (4), or (5) (corresponding to subparagraphs (C), (D) and (E) of 5 U.S.C. 6382(a)(1), respectively), an employee may elect to substitute the following paid leave for any or all of the leave without pay:

(1) Accrued or accumulated annual or sick leave under subchapter I of chapter 63 of title 5, United States Code (or equivalent annual or sick leave under another authority), consistent with the law and regulations governing the granting and use of annual or sick leave (including the limitations on the purposes for which sick leave may be used under § 630.401(a) and the hours limitations in § 630.401(b) through (e));

(2) Advanced annual or sick leave approved under the same terms and conditions that apply to any other agency employee who requests advanced annual or sick leave; and

(3) Annual leave donated to an employee under the Voluntary Leave Transfer Program or the Voluntary Leave Bank Program, consistent with subparts I and J of this part, or equivalent donated annual leave under another authority.

(d) *Leave to care for a covered servicemember.* For family and medical leave taken under § 630.1203(j) (corresponding to 5 U.S.C. 6382(a)(3) and (4)), an employee may elect to substitute the annual and sick leave identified in paragraph (c) of this section, except that any sick leave

credited to the employee may be substituted without regard to any of the normally applicable limitations on the use of sick leave.

(e) *Employee entitlement to substitute.* (1) An employee is entitled to elect whether or not to substitute paid leave for leave without pay under this subpart, as permitted in this section.

(2) An agency may not deny an employee's election to make a substitution permitted under this section.

(3) An agency may not require an employee to substitute paid leave for leave without pay.

(4) An employee may request to use annual leave or sick leave without invoking family and medical leave, and, in that case, the agency exercises its normal authority with respect to approving or disapproving the timing of when the leave may be used.

(f) *Notification by employee and retroactive substitution.* (1) An employee must notify the agency of the employee's election to substitute paid leave for leave without pay under this section prior to the date such paid leave commences (*i.e.,* no retroactive substitution), except as provided in paragraphs (f)(2) through (f)(4) of this section.

(2) An employee may retroactively substitute annual leave or sick leave for leave without pay granted under this subpart covering a past period of time, if the substitution is made in conjunction with the retroactive granting of leave without pay under § 630.1203(b).

(3) An employee may retroactively substitute transferred (donated) annual leave for leave without pay granted under this subpart in the circumstances covered by §§ 630.909(d) or 630.1009(d).

(4) An employee may retroactively substitute paid parental leave for applicable leave without pay granted under this subpart, as provided in § 630.1706(a) and subject to the requirements governing paid parental leave in subpart Q of this part. If the employee's leave without pay was not granted on a prospective basis under this subpart, the retroactive substitution of paid parental leave may not be made unless the leave without pay period has been retroactively designated as leave under this subpart, as allowed under § 630.1203(b).

■ 6. Revise § 630.1213(b)(3) to read as follows:

§ 630.1213 Records and reports.

* * * * *

(b) * * *

(3) The number of hours or days of leave taken under this subpart, including any paid leave substituted for leave without pay under § 630.1206; and

* * * * *

■ 7. Add subpart Q to read as follows:

Subpart Q—Paid Parental Leave

Sec.
630.1701 Purpose, applicability, and agency responsibilities.
630.1702 Definitions.
630.1703 Leave entitlement.
630.1704 Pay during leave.
630.1705 Work obligation.
630.1706 Cases of employee incapacitation.
630.1707 Cases of multiple children born or placed in the same time period.
630.1708 Records and reports.

Subpart Q—Paid Parental Leave

§ 630.1701 Purpose, applicability, and agency responsibilities.

(a) *Purpose.* This subpart provides regulations to govern the granting of paid parental leave to covered employees. Since paid parental leave may only be substituted for unpaid leave granted following a birth or placement under specific provisions of the Family and Medical Leave Act in title 5, United States Code—specifically, section 6382(a)(1)(A) and (B) in 5 U.S.C. chapter 63, subchapter V—this subpart links to subpart L (Family and Medical Leave) of this part.

(b) *Applicability.* (1) Except as otherwise provided in this paragraph (b), this subpart applies to employees to whom subpart L of this part applies, as provided in § 630.1201(b).

(2) An agency head authorized to issue regulations on family and medical leave under 5 U.S.C. chapter 63, subchapter V, as provided in § 630.1201(b)(3), is authorized to issue any necessary supplemental regulations on paid parental leave, providing those supplemental regulations are consistent with the regulations in this subpart.

(3) This subpart applies to a birth or placement occurring on or after October 1, 2020. Paid parental leave may not be provided under this subpart for any period of time before October 1, 2020.

(c) *Agency responsibilities.* The head of an agency having employees covered by this subpart is responsible for the proper administration of this subpart, including the responsibility of informing employees of their entitlements and obligations.

§ 630.1702 Definitions.

(a) *Applicability of subpart L definitions.* The definitions of terms in § 630.1202 are applicable in this subpart to the extent the terms are used, except that, to the extent any definitions of terms have been further revised in § 630.1702(b), the provisions of that section shall apply for purposes of this subpart.

(b) *Other definitions.* In this subpart—

Agency means an Executive agency as defined in 5 U.S.C. 105, excluding the Government Accountability Office. When the term ''agency'' is used in the context of an agency making determinations or taking actions, it means the agency head or management officials who are authorized (including by delegation) to make the given determination or take the given action.

Birth or placement means the birth of a son or daughter of a covered employee, or a new placement of a son or daughter with a covered employee for adoption or foster care, that is the basis for unpaid leave granted under § 630.1203(a)(1) or (2) (which correspond to 5 U.S.C. 6382(a)(1)(A) or (B), respectively). For the purpose of interpreting this definition, the terms *birth* and *placement* have the meanings given those terms in § 630.1202, except that paid parental leave may not be granted based on an anticipated birth or placement.

Child means a son or daughter as defined in § 630.1202 whose birth or placement is the basis for entitlement to paid parental leave.

FMLA unpaid leave means leave without pay granted under the Family and Medical Leave Act (FMLA) regulations in subpart L of this part.

Paid parental leave means paid time off from an employee's scheduled tour of duty that is authorized under 5 U.S.C. 6382(d)(2)(B)(i) and this subpart and that is granted to cover periods of time within the 12-month period commencing on the date of birth or placement to an employee who has a current parental role in connection with the child whose birth or placement was the basis for granting FMLA unpaid leave under § 630.1203(a)(1) or (2). This leave is not available to an employee who does not have a current parental role.

§ 630.1703 Leave entitlement.

(a) *Election.* An employee may elect to substitute available paid parental leave for any FMLA unpaid leave granted under § 630.1203(a)(1) or (2) (which correspond to 5 U.S.C. 6382(a)(1)(A) or (B), respectively) in connection with the occurrence of a birth or placement. (See § 630.1206(b).)

(b) *Available paid parental leave.* (1) The paid parental leave that is available for purposes of paragraph (a) of this section is 12 administrative workweeks in connection with the birth or placement involved. The entitlement to paid parental leave is triggered by the

occurrence of a birth or placement. The paid parental leave is considered to be available only if the employee has a continuing parental role with respect to the child whose birth or placement triggered the leave entitlement. The 12 administrative workweeks of paid parental leave may be used only during the 12-month period beginning on the date of the birth or placement involved.

(2) Since an employee may use only 12 weeks of FMLA unpaid leave in any 12-month period under § 630.1203(a), use of FMLA unpaid leave not associated with paid parental leave may affect an employee's ability to use the full 12 weeks of paid parental leave. Notwithstanding paragraph (b)(1) of this section, an employee will be able to use the full amount of paid parental leave only to the extent that there are 12 weeks of available FMLA unpaid leave granted under the birth or placement provisions in § 630.1203(a)(1) or (2) during the 12-month period commencing on the date of birth or placement. The availability of paid parental leave will depend on when the employee uses various types of FMLA unpaid leave relative to any 12-month period established under § 630.1203(c).

(c) *Conversion of weeks to hours.* For employees who are charged leave on an hourly basis (including fractions of an hour), the 12 administrative workweeks referenced in paragraph (b) of this section must be converted to hours based on the number of hours in the employee's scheduled tour of duty (as in effect on the date the employee begins a period of using paid parental leave) as follows:

(1) For a regular full-time employee with 80 hours in the scheduled tour of duty over a biweekly pay period, the hours equivalent of 12 administrative workweeks is 480 hours.

(2) For a full-time employee with an uncommon tour of duty (as defined in § 630.201 and described in § 630.210), the hours equivalent of 12 administrative workweeks is derived by multiplying 6 times the number of hours in the employee's biweekly scheduled tour of duty (or 6 times the average hours if the biweekly tour hours vary over an established cycle). For example, if an employee has an uncommon tour consisting of six 24-hours shifts (144 hours) per biweekly pay period, the amount would be 864 hours.

(3) For a part-time employee, the hours equivalent of 12 administrative workweeks is derived by multiplying 6 times the number of hours in the employee's scheduled tour of duty over a biweekly pay period. For example, if an employee has a part-time scheduled tour of duty that consists of 40 hours in a biweekly pay period, the amount would be 240 hours.

(d) *Conversion of weeks to days.* For employees who are charged leave on a daily basis, the days equivalent of 12 administrative workweeks must be derived based on the average number of workdays in the employee's established tour of duty over a biweekly pay period. For example, if an employee had 8 workdays each biweekly pay period, the days equivalent of 12 administrative workweeks would be 48 days.

(e) *Change in tour.* If there is a change in an employee's scheduled tour of duty during the 12-month period commencing on the date of a given birth or placement, and the employee has not used the full allotment of paid parental leave during such 12-month period, the remaining balance of paid parental leave must be recalculated based on the change in the number of average hours in the employee's scheduled tour of duty. For example, if a regular full-time employee has a balance of 120 hours of unused paid parental leave for a 12-month period that is in progress and then converts to a part-time schedule of 20 hours per week, the balance would be recalculated to be 60 hours. (Since the old schedule was 80 hours biweekly or an average of 40 hours weekly, the new part-time tour is half of the former full-time tour. 40/80 times 120 equals 60.)

(f) *Leave usage.* (1) An agency may not require an employee to use annual leave or sick leave to the employee's credit as a condition to be met before the employee uses paid parental leave. An employee may request to use annual leave or sick leave without invoking FMLA unpaid leave under subpart L of this part, and, in that case, the agency exercises its normal authority with respect to approving or disapproving the timing of when the leave may be used.

(2) Paid parental leave may be used in connection with the occurrence of a birth or placement only during the 12-month period following birth or placement. (See § 630.1703(b).) Paid parental leave may not be used prior to the birth or placement involved even if the employee was granted FMLA unpaid leave under § 630.1203(a)(1) or (2) for periods prior to the birth or placement event, as allowed under § 630.1203(d).

(3) An employee with a seasonal work schedule may not use paid parental leave during the off-season period designated by the agency—the period during which the employee is scheduled to be released from work and placed in nonpay status.

(g) *Treatment of unused leave.* If an employee has any unused balance of paid parental leave that remains at the end of the 12-month period following the birth or placement involved, the entitlement to the unused leave elapses at that time. No payment may be made for unused paid parental leave that has expired. Paid parental leave may not be considered annual leave for purposes of making a lump-sum payment for annual leave or for any other purpose.

(h) *Documentation of entitlement and employee certification.* (1) At the request of the employee's agency, an employee must provide the agency with appropriate documentation that shows that the employee's use of paid parental leave is directly connected to a birth or placement that has occurred. Appropriate documentation may include, but is not limited to, a birth certificate or a document from an adoption or foster care agency regarding the placement. An agency is responsible for determining what documentation is sufficient proof of entitlement.

(2) An agency may require that an employee sign a certification attesting that the paid parental leave is being taken in connection with a birth or placement. This employee certification may contain a statement in which the employee acknowledges an understanding of the consequences of providing a false certification (*e.g.,* the possibility that the employing agency could pursue appropriate disciplinary action, up to and including removal from Federal Service, or make a referral to a Federal entity that investigates whether conduct constitutes a criminal violation).

(3) An employee must provide any documentation or certification required by the agency no later than 15 calendar days after the date the agency requests such documentation or certification. If it is not practicable under the particular circumstances for an employee to respond within the 15-day time frame, despite the employee's diligent, good faith efforts, the employee must provide the documentation or certification within a reasonable period of time under the circumstances involved, but no later than 30 calendar days after the date of the agency's original request.

(4) An agency may grant paid parental leave prior to receiving any requested documentation or certification under this paragraph (h) based on an employee's communications with a supervisor or management. Under these circumstances, the granting of paid parental leave is considered to be provisional, pending receipt of the requested documentation or certification.

(5) If the employee fails to provide the agency with the required documentation

or certification within the specified time period, the agency may determine that the employee is not entitled to paid parental leave and may—

(i) Allow the employee to request that the absence be charged to leave without pay, sick leave, annual leave, or other forms of paid time off, as appropriate; or

(ii) If the employee acted fraudulently, charge the employee as absent without leave (AWOL) and pursue any other appropriate action.

§ 630.1704 Pay during leave.

(a) The pay an employee receives when using paid parental leave shall be the same pay the employee would receive if the employee were using annual leave.

(b) Paid parental leave is a type of leave that is counted in applying the 8-hour rule in 5 CFR 550.122(b) that determines whether night pay is payable during periods of leave.

(c) The pay received during paid parental leave may not include Sunday premium pay. (See section 624 of the Treasury and General Government Appropriations Act, 1999, Pub. L. 105–277, div. A, § 101(h), 112 Stat. 2681–518 (Oct. 21, 1998).)

§ 630.1705 Work obligation.

(a) *Advance agreement.* An employee may not use paid parental leave in connection with a birth or placement unless the employee agrees (in writing), before the commencement of such leave, to work for the applicable employing agency for not less than 12 weeks beginning on the employee's first scheduled workday after such leave concludes. (See special rules governing cases of incapacitation in § 630.1706.)

(b) *Interpretation.* For the purpose of applying paragraph (a) of this section—

(1) The term ''in writing'' means an agreement with the employee's handwritten signature or an acceptable electronic signature, consistent with the requirements in 5 CFR 850.106, and also is deemed to include an agreement documented in an email or text message from the employee, as long as the employee, within 24 hours, supplies the required signature;

(2) The term ''work'' means a period during which the employee is in duty status, excluding any periods (paid or unpaid) of leave, time off (including holiday time off), or other nonduty status (including furlough or AWOL status). Such excluded periods will not count toward completion of the 12-week work obligation.

(3) The term ''applicable employing agency'' means the agency employing the employee at the time use of paid parental leave concludes; and

(4) The date paid parental leave concludes is—

(i) The workday on which an employee finishes using 12 administrative workweeks of paid parental leave during the 12-month period that began on the date of birth or placement; or

(ii) If the employee does not use 12 administrative workweeks of paid parental leave during the 12-month period that began on the date of birth or placement, the day that is the last workday on which an employee used paid parental leave.

(c) *Conversion of weeks to hours.* For employees who are charged leave on an hourly basis (including fractions of an hour), the 12-week work obligation must be converted to hours based on the number of hours in the employee's scheduled tour of duty, consistent with the rules in § 630.1703(c). If an employee's scheduled tour of duty changes before the employee completes the 12-week obligation, the agency must recalculate the balance of work hours owed, consistent with the rules in § 630.1703(e). An acceptable alternative approach is to express each period of work as a fraction or percentage of the average weekly scheduled tour of duty hours in the affected biweekly pay period and to sum those fractions or percentages until the 12-week obligation is completed.

(d) *Conversion of weeks to days.* For employees who are charged leave on a daily basis, the days equivalent of 12 weeks must be derived based on the average number of workdays in the employee's established tour of duty over a biweekly pay period, consistent with the rules in § 630.1703(d).

(e) *Agreement to make reimbursement when applicable.* In the written agreement described in paragraph (a) of this section, the employee must attest that, in the event the employee does not complete the 12-week work obligation, he or she agrees, pursuant to paragraph (f), to make reimbursement unless the affected employing agency (or agencies) determines (determine) that the reimbursement provision will not be applied.

(f) *Application of reimbursement requirement.* (1) If an employee fails to return for the required 12 weeks of work with the applicable employing agency after paid parental leave concludes (as described in paragraphs (a) and (b) of this section), an agency may require that the employee make a reimbursement equal to the total amount of any Government contributions paid by the agency on behalf of the employee to maintain the employee's health insurance coverage under the Federal Employees Health Benefits Program established under 5 U.S.C. chapter 89 during the period(s) when paid parental leave was used. An employee who separates from the applicable employing agency before completing the required 12 weeks of work is considered to have failed to return to duty under this paragraph. For the purpose of the preceding sentence, an intra-agency reassignment without a break in service will not be considered a separation.

(2) The determination to impose the reimbursement requirement is at the agency's sole and exclusive discretion, except that an agency may not impose the requirement if, in the agency's judgment, the employee is unable to return to work for the required 12 weeks because of—

(i) The continuation, recurrence, or onset of a serious health condition (including mental health) of the employee or the child whose birth or placement was the basis for the paid parental leave, but, in the case of the employee's serious health condition, only if the condition is related to the applicable birth or placement; or

(ii) Any other circumstance beyond the employee's control, subject to paragraph (h) of this section.

(g) *Medical certification.* An agency's determination not to apply the reimbursement requirement may be conditioned upon the employee's supplying of a health care provider certification supporting the employee's claim that a serious health condition described in paragraph (f)(2)(i) is causing the employee to be unable return to work for the required 12 weeks. In cases where an agency's determination regarding whether to apply the reimbursement requirement relies on a health condition that is not related to the applicable birth or placement or that applies to a person not covered by paragraph (f)(2)(i) of this section, the agency may also require a medical certification. An agency may require additional examinations and certification from other health care providers if it deems it necessary, but any such additional examinations must be at the agency's expense.

(h) *Circumstances beyond employee's control.* The circumstances beyond the employee's control referenced in paragraph (f)(2)(ii) of this section must be ones that truly preclude an employee from returning to work with the employing agency. Examples of situations beyond the employee's control include such situations as where a parent chooses to stay home because a child has a serious health condition or an employee moves because the employee's spouse is unexpectedly

transferred to a job location more than 75 miles from the employee's worksite. Matters of employee preference or convenience will not suffice. For example, a situation where an employee chooses not to return to work to stay home with a well, newborn child would not constitute a circumstance beyond the employee's control for purposes of this exception.

(i) *Multiple agencies involved.* If an employee does not complete the 12-week work obligation and if more than one agency provided Government contributions on behalf of an employee for that employee's health insurance coverage during a period of paid parental leave, each agency is responsible for making a determination regarding whether to apply the reimbursement requirement described in paragraph (f) of this section with respect to periods of paid parental leave during employment with the agency. The employing agency that employed the employee at the time use of paid parental leave concluded is responsible for informing any other affected agency of the employee's failure to complete the required 12 weeks of work and of its determination regarding application of the reimbursement requirement. Any other affected agency will make its own determination regarding application of the reimbursement requirement associated with agency employment.

(j) *Agency policies on applying the reimbursement requirement.* Each agency is responsible for adopting its own set of policies governing when it will or will not apply the reimbursement requirement described in paragraph (f) of this section. A single agency-wide set of policies should be in place so that employees within an agency are treated consistently.

(k) *Collection of reimbursement.* The reimbursement requirement described in paragraph (f) of this section, if imposed, is subject to collection as a debt owed to the affected agency. (See the Federal Claims Collection Standards in 31 CFR parts 900 through 904.)

§ 630.1706 Cases of employee incapacitation.

(a) If an agency determines that an otherwise eligible employee who could have made an election during a past period to substitute paid parental leave (as provided in § 630.1703) and enter a work obligation agreement (as described in § 630.1705) was physically or mentally incapable of doing so during that past period, the employee may, within 5 workdays of the employee's return to duty status, make an election to substitute paid parental leave for applicable FMLA unpaid leave under § 630.1703(a) on a retroactive basis. Such a retroactive election shall be effective on the date that such an election would have been effective if the employee had not been incapacitated at the time. Consistent with § 630.1206(f)(4), this retroactive election must be made in conjunction with a retroactive election under § 630.1203(b), if the FMLA unpaid leave was not already approved. As part of such election, the employee must agree (in writing, as described in § 630.1705(b)(1)) to meet the work obligation or pay the required reimbursement (if applicable) unless—

(1) Applying the work obligation and the associated reimbursement requirement is barred under § 630.1705(f)(2); or

(2) The agency later concludes under its policies established under § 630.1705(f)(1) that the circumstances support a determination to not apply the reimbursement requirement.

(b)(1) If an agency determines that an otherwise eligible employee is physically or mentally incapable of making an election to substitute paid parental leave (as provided in § 630.1703) and entering into a work obligation agreement (as described in § 630.1705), the agency must, upon the request of a personal representative of the employee whom the agency finds acceptable, provide conditional approval of substitution of paid parental leave for applicable FMLA unpaid leave under § 630.1703(a) on a prospective basis. The conditional approval is based on the presumption that the employee would have elected to substitute paid parental leave for the applicable FMLA unpaid leave and would have entered into the work obligation agreement if the employee had not been incapacitated. Within 5 workdays after returning to work, the employee must enter into a written agreement to meet the work obligation described in § 630.1705 or pay the required reimbursement (if applicable) unless—

(i) Applying the work obligation and the associated reimbursement requirement is barred under § 630.1705(f)(2); or

(ii) The agency later concludes under its policies established under § 630.1705(f)(1) that the circumstances support a determination to not apply the reimbursement requirement.

(2) If an employee covered by paragraph (b)(1) of this section declines to enter into the written agreement after being determined by the agency to no longer be incapacitated, the agency must cancel any portion of the 12 weeks of paid parental leave that has not been exhausted, and designate as invalid any paid parental leave that was used based on the conditional approval. The time covered by the invalidated paid parental leave must be converted to leave without pay unless the employee requests that other paid leave or paid time off to the employee's credit be applied (as appropriate) in place of the invalidated paid parental leave. To the extent the employee has invalidated paid parental leave hours not replaced by other paid leave or paid time off, pay received for those hours is a debt to the employing agency and is subject to collection under the Federal Claims Collection Standards in 31 CFR parts 900 through 904.

§ 630.1707 Cases of multiple children born or placed in the same time period.

(a) If an employee has multiple children born or placed on the same day, the multiple-child birth/placement event is considered to be a single event that triggers a single entitlement of up to 12 weeks of paid parental leave under § 630.1703(b).

(b) If an employee has one or more children born or placed during the 12-month period following the date of an earlier birth or placement of a child of the employee, the provisions of this subpart shall be independently administered for each birth or placement event. Any paid parental leave substituted for FMLA unpaid leave during the 12-month period beginning on the date of a child's birth or placement shall count towards the 12-week limit on paid parental leave described in § 630.1703(b) applicable in connection with the birth or placement involved. The substitution of paid parental leave may count toward multiple 12-week limits to the extent that there are multiple ongoing 12-month periods beginning on the date of an applicable birth or placement, each of which encompasses the day on which the leave is used. Therefore, whenever paid parental leave is substituted during periods of time when separate 12-month periods (each beginning on a date of birth or placement) overlap, the paid parental leave will count toward each affected period's 12-week limit. For example, if an employee has a child born on June 1 and another child placed for adoption on October 1 of the same year, each event would generate entitlement to substitute up to 12 weeks of paid parental leave during the separate 12-month periods beginning on the date of the birth and on the date of the placement, respectively. Those two 12-month periods would be June 1–May 31 and October 1–September 30. The overlap period for these two 12-month periods would be October 1–May 31. If

the employee substitutes paid parental leave during that overlap period, that amount of paid parental leave would count towards both the 12-week limit associated with the birth event and the 12-week limit associated with the placement event.

§ 630.1708 Records and reports.

(a) *Record of usage of paid parental leave.* An agency must maintain an accurate record of an employee's usage of paid parental leave.

(b) *Reporting.* In agency data systems (including timekeeping systems) and in data reports submitted to OPM, an agency must record usage of paid parental leave in the manner prescribed by the Office of Personnel Management.

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OFFICE OF PERSONNEL MANAGEMENT

5 CFR Part 630

RIN 3206–AO04

Scheduling of Annual Leave by Employees Determined Necessary To Respond to Certain National Emergencies

AGENCY: Office of Personnel Management.

ACTION: Interim rule.

SUMMARY: The Office of Personnel Management is issuing interim regulations to assist agencies and employees responding to the National Emergency Concerning the Novel Coronavirus Disease (COVID–19) Outbreak and for future national emergencies. The regulations provide that employees who would forfeit annual leave in excess of the maximum annual leave allowable carryover because of their work to support the nation during a national emergency will have their excess annual leave deemed to have been scheduled in advance and subject to leave restoration.

DATES: The interim regulations are effective on August 10, 2020. Comments must be received on or before October 9, 2020.

ADDRESSES: You may submit comments, identified by docket number and/or Regulatory Information Number (RIN) and title, by the following method:

Federal Rulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.

All submissions received must include the agency name and docket number or RIN for this document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: Doris Rippey by telephone at (202) 606–2858 or by email at *pay-leave-policy@opm.gov.*

SUPPLEMENTARY INFORMATION: On March 13, 2020, President Trump declared a ''National Emergency Concerning the Novel Coronavirus Disease (COVID–19) Outbreak'' (85 FR 15337 at *https://www.federalregister.gov/documents/2020/03/18/2020-05794/declaring-a-national-emergency-concerning-the-novel-coronavirus-disease-covid-19-outbreak*). Because of the unprecedented outbreak and spread of this virus and the efforts toward response and recovery, many Federal agencies and employees have been, and for the foreseeable future will continue to be, engaged in work vital to our nation and to the pandemic response. Under current rules, some of these employees will be unable to use sufficient annual leave to avoid exceeding the limit on annual leave that may be carried over into the next year. The Office of Personnel Management (OPM) is issuing interim regulations to assist such agencies and employees and to address any similar situations during future emergencies.

OPM issued CPM 2020–09 on June 18, 2020, to remind agencies and employees of the normally applicable rules for annual leave and various paid time off categories. We reminded agencies to work with their employees to ensure that they continue to take any annual leave or other paid time off before it expires. For further guidance on the normal applicable rules, agencies and employees may review the guidance at *https://www.chcoc.gov/content/annual-leave-and-other-paid-time-guidance.*

For most employees, the maximum annual leave that may be carried into the next leave year is 30 days (240 hours). Currently, an agency may restore annual leave that was forfeited due to an exigency of the public business or sickness of the employee only if the annual leave was scheduled in writing before the start of the third biweekly pay period prior to the end of the leave year (typically late November or early December). Any annual leave scheduled after that date will be forfeited if not used by the final day of the leave year.

The regulations provide that, once the agency head or designee has made appropriate determinations, employees who would forfeit annual leave in excess of the maximum annual leave allowable carryover because of their work to support the nation during a national emergency will have their excess annual leave deemed to have been scheduled in advance and subject to leave restoration.

The procedures established by these interim regulations are similar to those established in previously rescinded 5 CFR 630.310 for employees whose services were deemed essential to the Year 2000 (Y2K) computer conversion and in current 5 CFR 630.311, for employees whose services were deemed essential to the emergency response in the aftermath of the September 11, 2001, terrorist attacks, which are being rescinded by this interim rule. These interim regulations differ from the previous regulations in that they allow this authority to be used not only for the current national emergency related to the COVID–19 outbreak, but also for certain future national emergencies for which OPM issues notification permitting use of this authority. These regulations allow agencies to respond quickly to the annual leave restoration needs of their employees who are responding to a national emergency.

Rescinding Regulations

OPM is rescinding 5 CFR 630.311, Scheduling of annual leave by employees determined necessary to respond to the ''National Emergency by Reason of Certain Terrorist Attacks.'' The regulations at 5 CFR 630.311 provided that the national emergency following the September 11, 2001 terrorist attacks was deemed to be an exigency of the public business for the purpose of restoring annual leave to any employee who forfeited annual leave under 5 U.S.C. 6304 because the agency determined the employee's services were required in response to that national emergency. The practical purpose of the regulations was to address the statutory and regulatory requirements for advanced scheduling of annual leave for leave restoration purposes.

The statute requires that, in order for annual leave to be eligible for restoration because of an exigency of the public business, it must have been scheduled in advance. (See 5 U.S.C. 6304(d)(1)(B).) The implementing regulations at 5 CFR 630.308(a) require annual leave to be scheduled in writing before the start of the third biweekly pay period prior to the end of the leave year in order to meet the statutory requirement for being ''scheduled in advance'' unless 5 CFR 630.308(b) applies.

These requirements were difficult to meet in the aftermath of the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon. The terrorist attacks occurred on September 11, 2001, which was very late in the 2001 leave year and only a couple of months before December 1, 2001, the date by which employees were required to schedule their annual leave subject to forfeiture in order for it to be considered for restoration. Many employees were involved in the response to that national emergency, and it was clear that their involvement would preclude their use of annual leave before January 12, 2002, which was the end of the 2001 leave year. Because it was known in advance that it was not going to be possible for such employees to be absent on leave, OPM published those interim regulations, which directly addressed this scheduling requirement and deemed that any annual leave forfeited as a result of an employee's work on the national emergency would be deemed to have been scheduled in advance for the purpose of satisfying the scheduling requirements at 5 U.S.C. 6304(d)(1)(B) and 5 CFR 630.308.

Although the national emergency by reason of the terrorist attacks is still in effect (see 84 FR 48545, Sept. 13, 2019), employees performing work towards that national emergency are now better able to schedule and take annual leave. Because the regulation was issued to address the difficulty of employees needing to be in a constant work status and their agencies not being able to approve any of their requests to schedule and take annual leave, and these employees have since been able to schedule and take annual leave, § 630.311 is no longer needed. Therefore, going forward, the normal requirements for restoration of annual leave for an exigency of the public business will apply to any employee still performing work on activities related to the ''National Emergency by Reason of Certain Terrorist Attacks.'' In order for an agency to consider restoring annual leave to an employee performing such work, the employee must have followed the leave scheduling requirements of 5 U.S.C. 6304(d)(1)(B) and 5 CFR 630.308 (*i.e.,* the annual leave must have been scheduled in writing before the start of the third biweekly pay period prior to the end of the leave year) and the agency must have determined that there was an urgent need for the employee to perform work related to the national emergency such that the employee's annual leave was cancelled.

Scheduling of Annual Leave by Employees Determined Necessary To Respond to Certain National Emergencies

Section 6304 of title 5, United States Code, establishes limitations on the amount of annual leave an employee may carry over from one leave year to the next. Most employees may carry over no more than 240 hours of annual leave to the next leave year. However, 5 U.S.C. 6304(d)(1) provides that excess annual leave lost because of ''exigencies of the public business when the annual leave was scheduled in advance . . . shall be restored to the employee.'' For the purpose of Federal leave administration, an exigency of the public business occurs when the employing agency determines there is a pressing need for an employee's service, and the employee cannot use his or her excess annual leave because there are no other practical alternatives available to accomplish the work by a given deadline.

At certain times when the President declares a national emergency, the services of many employees in Federal agencies will be essential to respond to that national emergency. As a result, many of these employees will be faced with the possible forfeiture of ''use or lose'' annual leave because they must remain on the job to work towards the fulfillment of the agencies' missions during the critical response period. In the normal course, and in the absence of this new regulation, in order for annual leave to be considered for restoration, it must have been scheduled before the start of the third biweekly pay period prior to the end of the leave year. This requirement means that agencies and their employees would be faced with the administrative burden of scheduling, canceling, and restoring such leave for each of these employees at a time when all available attention and energy should be focused on the national emergency.

As referenced above, OPM has previously issued regulations such as 5 CFR 630.311, Scheduling of annual leave by employees determined necessary to respond to the ''National Emergency by Reason of Certain Terrorist Attacks,'' and the previously rescinded 5 CFR 630.310, Scheduling of annual leave by employees determined necessary for Year 2000 computer conversion efforts. Both of these prior regulations deemed the national emergency and the Y2K circumstances exigencies of the public business for purposes of restoration of annual leave. The regulations also deemed annual leave that was forfeited for these reasons to have been scheduled in advance. Those regulations were issued in response to specific emergencies. However, going forward, OPM has determined that it would be prudent to issue a generally applicable regulation to provide OPM with the flexibility to respond quickly to a future national emergency, rather than promulgate new rules for each emergency, resulting in potential delays in implementation.

To accomplish this goal, OPM is replacing the reserved 5 CFR 630.310 with a new 5 CFR 630.310 entitled ''Scheduling of annual leave by employees determined necessary to respond to certain national emergencies.'' Below we provide an explanation of the provisions in interim 5 CFR 630.310. Hereafter in this **SUPPLEMENTARY INFORMATION**, references to statutory provisions in title 5, United States Code, and to regulatory provisions in title 5, Code of Federal Regulations, will generally be referred to by section number without restating the full title 5 reference.

OPM's Authority To Initiate Restored Annual Leave Streamlined Process

In order to initiate a streamlined process to restore forfeited annual leave, the Director of OPM has the authority to respond to a specific national emergency as declared by the President. OPM's central response will allow agencies to restore annual leave expeditiously. Under this regulation, OPM will notify agencies that they may utilize this authority to restore annual leave to employees whose work is considered essential for the particular national emergency.

Under the National Emergencies Act (50 U.S.C. 1601 *et seq.*), the President may pronounce a national emergency when he or she considers it appropriate. Once the President has declared a national emergency, the President's declaration is published in the **Federal Register**.

Paragraph (a)(1) of the new § 630.310 provides that the Director of OPM may deem a specific national emergency as declared by the President under the National Emergencies Act to be an exigency of the public business for the purpose of restoring annual leave forfeited under 5 U.S.C. 6304(d)(1)(B) and will notify agencies of this decision. Since the passage of the National Emergencies Act, the President has declared various national emergencies. However, few have required a sustained response from large portions of the civilian workforce, which would preclude many employees from being able to use their annual leave to avoid forfeiture. For example, some national

emergencies may entail a response of the Armed Services rather than the civilian workforce. Therefore, only certain national emergencies will rise to the level of being a national emergency that will also qualify as an exigency of the public business under this regulation.

As noted above, for those emergencies that qualify under such circumstances, this generally applicable regulation will provide agencies with flexibility to permit restoration of annual leave expeditiously. The OPM Director expects to make a determination pursuant to these regulations when a certain national emergency as declared by the President will require the service of Federal employees on a large scale, such that employees will be unable to use annual leave to prevent forfeiture of the leave. Only when the Director of OPM makes such a determination and provides notice to agencies of such determination may agencies use the authority.

Determinations and Communication by Agency Head or Designee

Paragraph (a)(2) of the new § 630.310 requires each agency head to take proactive steps to establish procedures and policies necessary to administer this annual leave restoration authority and to update them as necessary so that they are available for immediate use during a declared national emergency. The interim regulations require all agency heads to create these policies and procedures as part of their emergency planning, meaning that agencies must establish such policies and procedures to be available for use during any national emergency for which OPM issues a notice under paragraph (a)(1). In this way, all agencies will be prepared to immediately use this authority for any and all future national emergencies for which it may be necessary.

As provided in paragraph (b), once the Director of OPM informs agencies that it has deemed a certain national emergency an exigency of the public business for purposes of the restoration of annual leave, each agency head (or designee), in his or her sole and exclusive discretion, must perform the following actions. The agency head (or designee) will be required to identify any employees covered under this annual leave restoration authority because they are affected by the exigency of the public business described in the OPM notification, due to their services being considered essential to the response to the national emergency, and they therefore cannot use their annual leave. This agency designation is necessary because the employees whose work is considered essential in responding to a national emergency will vary depending on the nature of the emergency. For example, for the ''National Emergency by Reason of Certain Terrorist Attacks,'' the services of certain intelligence analysts may have been considered essential to the emergency response, whereas for the ''National Emergency Concerning the Novel Coronavirus Disease (COVID–19) Outbreak,'' the services of employees such as physicians, nurses, certain clinical laboratory scientists, and public health specialists may be more likely to be designated as essential to the emergency response. The agency head (or designee) may make such a determination for groups of employees or for individual employees. Once the agency head (or designee) has made such a determination, the agency head (or designee) must inform the designated employees or group of employees in writing of this determination and its application to them. It is critical that such employees know that their services have been designated as essential during the emergency because the employees need to know that the normal requirement to schedule annual leave in writing before the start of the third biweekly pay period prior to the end of the leave year, as required by § 630.308, is not applicable during the designated time period. Employees also need to understand how the other provisions in § 630.310 apply to them.

The regulations provide that the agency's determination may not be made by any official whose leave would be affected by the decision.

Annual Leave Deemed Scheduled in Advance

Paragraph (c) of the new § 630.310 simplifies the procedures for restoring annual leave forfeited as a result of the national emergency. In many instances, as it is known in advance that it is not possible for designated employees involved in the national emergency to be absent on annual leave, the scheduling and canceling of such leave places an unnecessary administrative burden on the employees and the agencies involved. Paragraph (c) simplifies the administrative process by deeming annual leave forfeited in a leave year as a result of a national emergency for which OPM issues a notification under paragraph (a) to have been scheduled in advance for the purpose of satisfying the requirements in 5 U.S.C. 6304(d)(1)(B) and § 630.308. Therefore, annual leave forfeited at the end of a leave year because of the national emergency and the need for employees' services during the national emergency will be restored under 5 U.S.C. 6304(d)(1)(B) and placed in a separate restored leave account.

Time Limit for Use of Restored Leave

Paragraph (d) of the new § 630.310 parallels the current § 630.306 and provides the rules governing the timeframes in which an employee must schedule and use annual leave forfeited under these regulations. Employees who already have large restored annual leave accounts and employees remaining in positions performing work that is essential to respond to the national emergency for an extended period of time may accrue large amounts of annual leave in their accounts. Under the current regulations, the affected employees would have to schedule and use all of the restored annual leave by the end of the leave year ending 2 years after the termination date of the exigency of the public business. As a result, employing agencies would have to deal with the consequence of employees using sizeable amounts of leave within 2 to 3 years after the end of the national emergency. At the same time, annual leave that accrues during that 2- to 3-year period would routinely create a ''use or lose'' situation.

To help alleviate this situation, § 630.310(d) provides that annual leave restored as a result of the exigency of public business caused by the national emergency will have the same time limits for restoration as are currently used for Department of Defense (DoD) employees in installations undergoing closure or realignment. (See § 630.306(b).) A full-time employee will be required to schedule and use excess annual leave of 416 hours or less by the end of the leave year in progress 2 years after the date fixed by the agency head (or designee) as the termination date of the exigency of the public business. The agency will extend that period by 1 leave year for each additional 208 hours of excess annual leave or any portion thereof. A part-time employee will be required to schedule and use excess annual leave in an amount equal to or less than 20 percent of the number of hours in the employee's scheduled annual tour of duty by the end of the leave year in progress 2 years after the date the employee is no longer subject to the exigency. The agency will extend this period by 1 leave year for each additional number of hours of excess annual leave, or any portion thereof, equal to 10 percent of the number of hours in the employee's scheduled annual tour of duty.

We are also making a concurrent change to the regulations related to uncommon tours of duty at § 630.210 by adding a new paragraph (d) to clarify that in applying sections of the back pay regulations at § 550.805(g), the regulations at § 630.306(b) for DoD installations undergoing closure, and these interim regulations to employees on such tours of duty, the referenced number of hours for full-time employees (416 hours and 208 hours) are to be proportionally adjusted based on the percentage amount by which the number of hours in the uncommon tour of duty exceeds the number of hours in a regular full-time tour of duty. For example, if the uncommon tour of duty consists of 120 hours in a biweekly pay period instead of the 80 hours for a regular full-time employee, the percentage adjustment would be 50 percent [(120/80) − 1]; accordingly, 416 hours would be converted to 624 hours and 208 hours would be converted to 312 hours. Section 630.310(d)(1) references this new regulation regarding employees on uncommon tours of duty at § 630.210(d).

Treatment of Current Restored Leave Accounts

Paragraph (e) of the new § 630.310 recognizes that some employees who will be involved in responding to the exigency of the public business determined by the Director of OPM will already have an ''active'' restored leave account—*i.e.,* an account of restored annual leave that was established under other conditions permitting restoration of annual leave under 5 U.S.C. 6304(d). We are including paragraph (e) to prevent such employees from forfeiting leave in their restored leave accounts. Because there is no authority to restore previously restored annual leave, employees with restored annual leave who cannot take annual leave because their services are considered essential to the national emergency response would forfeit any previously restored annual leave subject to forfeiture at the end of the leave year. The interim regulation at § 630.310(e) alleviates this problem by canceling the time limitation for using active restored annual leave for the entire period during which employees' services are determined to be essential to respond to the national emergency. When coverage for an employee under this section ends due to the termination date of the exigency of the public business fixed by the agency, as described in paragraph (f)(2), a new time limit will be established under § 630.310(d) for using all restored leave available to the employee under 5 U.S.C. 6304(d).

Termination of the Exigency as It Affects Employees

Paragraph (f) of the new § 630.310 provides parameters for monitoring the agency response to the declared national emergency and conditions under which the provisions of § 630.310 will no longer be applicable to specific employees or groups of employees and the normal annual leave forfeiture rules will again apply to them. Employees whose services are required in response to the national emergency will all, at some point, generally be able to again schedule and take annual leave following the normal procedures in § 630.308(a). Therefore, it is incumbent on the agency to determine, for any exigency of the public business, when any employee is no longer affected by the exigency to the extent that the employee cannot schedule and take annual leave. The regulations therefore lay out when the national emergency as an exigency of the public business must be terminated.

Section 630.310(f)(1) requires the agency head (or designee) to continually monitor the agency response to the national emergency and determine whether the services of individual employees or groups of employees continue to be required in response to the emergency such that annual leave may not be scheduled according to the normal procedures described in § 630.308(a). This is a necessary role that the agency head (or designee) must perform in order to use this authority for its intended purpose.

Section 630.310(f)(2) makes the agency head (or designee) responsible for fixing a specific date as the termination date of the exigency of the public business for each affected employee or group of employees based on application of provisions in paragraphs (i) through (v). The exigency of the public business as it affects an individual employee or group of employees must be terminated at the earliest occurrence of one of a series of possible events. The exigency may end when the President declares an end to the national emergency. It may also end when the Director of OPM deems the national emergency to no longer be an exigency of the public business for the purposes of this regulation. As time passes, it can be that the services of fewer and fewer employees are required in response to the national emergency. Therefore the exigency of the public business may also end when the agency head (or designee), in his or her sole and exclusive discretion, determines that the employee's or group of employees' services are no longer essential to the response to the national emergency or that such employees can once again adhere to the normal leave requesting procedures at § 630.308(a). For example, a hospital struggling to treat patients affected by COVID–19 may require the services of all hospital employees in response to the need. As operations go back to normal, the agency head (or designee) could determine the specific date that operations are back to normal, and a group of cardiologists are able to request leave under normal conditions as of a date specified by the agency head (or designee) and declare the exigency to no longer apply to those employees. However, the agency head (or designee) may determine that the services of pulmonary specialists may still be required and thus the exigency still applies to these employees. Because the continual and ongoing need for employees' services such that they cannot schedule annual leave according to the normal procedures will eventually end, the regulations provide that the exigency terminates on the day that is 12 months after the national emergency has been declared, except that the agency head (or designee), in his or her sole and exclusive discretion, may extend this deadline annually by an additional 12 months. Under no circumstances may an agency grant more than two 12-month extensions under this paragraph in connection with any national emergency, thus this authority may not be applied for more than a total of 3 years from the initial date of the declared emergency. The reason for this termination at the 3-year anniversary is that there is already another authority for an extended exigency of the public business at § 630.309 that provides authority for an exigency that lasts more than 3 calendar years and meets other requirements. Finally, the regulations provide that the exigency terminates when an employee whose services were determined to be essential for response to the national emergency moves to a position in which the employee is not performing services considered essential to responding to the national emergency.

Section 630.310(f)(3) requires the agency head (or designee) to inform both the affected employees and the agency payroll provider in writing of this termination date. Payroll providers need to know the date of the end of the exigency in order to set the date when the restored annual leave will expire. The affected employees also need to know this date so they can plan to use the restored annual leave before it expires.

Employees No Longer Involved With the National Emergency

Paragraph (g) of the regulations allows an agency to consider restoration of annual leave forfeited at the end of the leave year to an employee whose involvement in the national emergency ends during the leave year if the agency determines that there is a correlation between the lack of advance scheduling and the employee's services in response to the national emergency.

As noted earlier, § 630.308 currently requires that before forfeited annual leave may be considered for restoration, the leave must have been scheduled in writing before the start of the third biweekly pay period prior to the end of the leave year. We are concerned about the possible consequences of requiring advance scheduling for an employee or group of employees when the national emergency to which affected employees have been responding terminates (as described in paragraph (f)) during the latter portion of a leave year. It is possible that such employees would have annual leave in excess of the maximum limitation but would still be unable to schedule it in time for it to be restored.

OPM believes such annual leave may be considered for restoration. Section 630.310(g) requires affected employees to make a reasonable effort to comply with the advance scheduling requirement in § 630.308(a). However, the head of an agency (or designee), in his or her sole and exclusive discretion, may exempt an employee from the advance scheduling requirement if the employee can show that he or she was involved in work necessary to respond to the national emergency during the leave year and was unable to comply with the scheduling requirement under § 630.308(a) because of circumstances beyond his or her control. Because the agency may determine that there was sufficient time for the employee to schedule and use annual leave before the end of the leave year, this provision does not guarantee that excess annual leave will be restored.

Miscellaneous Technical Amendments

OPM is amending § 630.306(a) to add a reference to this regulation. OPM is also amending § 630.308(a) to remove the reference to the rescinded § 630.311.

Waiver of Notice of Proposed Rule Making

OPM is issuing this rulemaking as an interim final rule and has determined that, under the Administrative Procedure Act (APA), 5 U.S.C. 553(b)(B), it would be impracticable and contrary to the public interest to delay a final regulation until a public notice and comment process has been completed. OPM also is waiving general notice of proposed rulemaking under the Civil Service Reform Act's parallel rulemaking provision, 5 U.S.C. 1103(b)(3), because the interim rule is temporary in nature and necessary to be implemented expeditiously as a result of an existing emergency, as well possible unanticipated future emergencies.

The conclusion of a public notice and comment period before the rule is finalized would be impracticable because it would impede due and timely execution of the functions of OPM, employing agencies, and payroll providers.

In order for the streamlined restoration process to occur, the regulations require agencies to establish internal policies and procedures before using this new authority. For larger agencies, policies must be established at the headquarters level and then communicated to component levels. Significant changes to personnel processing also may be required. After implementing policies are established, the agency head (or designee) needs to identify all affected employees and communicate to those employees that they are subject to this new authority and the scheduling requirement does not apply to them. All this must be done prior to the November 21, 2020, scheduling requirement.

There was insufficient time from the President's declaration of a national emergency in response to the COVID–19 public health crisis on March 13, 2020, for OPM to complete a notice and comment rulemaking process in time for agencies, payroll providers, and employees to prepare for the rule in advance of the November 21, 2020, scheduling requirement. In addition, OPM's pay and leave policy resources have been engaged during the same period in implementing the pay and leave requirements of the Families First Coronavirus Response Act (Pub. L. 116–127) and the Coronavirus Aid, Relief, and Economic Security Act (Pub. L. 116–136).

The conclusion of a public notice and comment period before the rule is finalized would also be contrary to the public interest because it would result in serious damage to important interests. Implementing the regulation will be resource-intensive for agencies. Requiring agencies to wait until the conclusion of public notice and comment procedures to implement the regulation under a shorter deadline would be disruptive to agencies' missions during a national emergency, which will have a corresponding effect on the public.

Many employees are unable to take annual leave because they are required to support their agency's mission-related response to COVID–19. Because employees may not take annual leave, they are also not contemplating scheduling such leave because the agency needs employees to continue to support vital work-related functions related to the national emergency. In order to alleviate this burden on agencies and employees, this interim regulation provides that, upon the agency's determination, an employee would not need to meet the normal scheduling requirements under 5 CFR 630.308 in order to qualify for the restoration of any forfeited annual leave.

For the 2020 leave year, the date by which use or lose annual leave must be scheduled is November 21, 2020. Any employee to which these regulations would apply will need to know well in advance of this scheduling date that they are not required to schedule their annual leave before that date and may instead focus on their mission and required work directly related to COVID–19.

In addition, OPM has determined that extending the regulation to address potential future emergencies, and not only COVID–19, meets the above criteria for a waiver. The processes that the regulation outlines for potential future emergencies are the same as those that OPM followed in the two prior cited emergencies and that OPM intends to follow during COVID–19. The regulations engage agencies in contingency planning for future such instances and describe the process that OPM intends to follow in such instances. Only at the time of any future national emergency do the regulations require a determination by the OPM Director that a particular emergency is an exigency of the public business. The comment period noted above will enable OPM to consider any necessary changes for future emergencies in the final rule.

Accordingly, in order to give practical effect to these regulations, I find that good cause exists to waive the general notice of proposed rulemaking pursuant to 5 U.S.C. 553(b)(B). The interim final rule is temporary in nature, and expeditious timing is required because of the circumstances facing agencies during the COVID–19 emergency. OPM will promulgate a final rule as soon as practical after receiving public comments on the interim final rule.

Waiver of Delay in Effective Date

OPM is waiving the 30-day delayed effective date, and making this rule effective on the date of publication, because under 5 U.S.C. 553(d)(1), this is ''a substantive rule which grants or recognizes an exemption or relieves a restriction'' to permit the streamlined restoration of forfeited annual leave. In addition, I find, under 5 U.S.C. 553(d)(3), that good cause exists for making this rule effective in fewer than 30 days—*i.e.,* effective on the date of publication—because as described above, an immediate effective date is necessary to minimize harm and disruption to employees, agencies, and payroll providers, and because a delayed effective date is not necessary to give affected parties a reasonable time to adjust their behavior before the final rule takes effect. An immediate effective date will give affected employees the benefit of these new provisions as quickly as possible.

Executive Order 13563 and Executive Order 12866

This rule has been designated a ''significant regulatory action'' and has been reviewed by the Office of Management and Budget in accordance with E.O. 13563 and 12866.

Executive Order 13771

This rule is not subject to the requirements of E.O. 13771 because this rule results in no more than *de minimis* costs.

Regulatory Flexibility Act

I certify that this regulation will not have a significant economic impact on a substantial number of small entities because it will apply only to Federal agencies and employees.

Paperwork Reduction Act Requirements

This rule does not impose any new reporting or record-keeping requirements subject to the Paperwork Reduction Act.

List of Subjects in 5 CFR Part 630

Government employees.

Office of Personnel Management.

Alexys Stanley,

Regulatory Affairs Analyst.

Accordingly, OPM is amending part 630 of title 5 of the Code of Federal Regulations as follows:

PART 630—ABSENCE AND LEAVE

■ 1. The authority citation for part 630 continues to read as follows:

Authority: 5 U.S.C. chapter 63 as follows: Subparts A through E issued under 5 U.S.C. 6133(a) (read with 5 U.S.C. 6129), 6303(e) and (f), 6304(d)(2), 6306(b), 6308(a) and 6311; subpart F issued under 5 U.S.C. 6305(a) and 6311 and E.O. 11228, 30 FR 7739, 3 CFR, 1974 Comp., p. 163; subpart G issued under 5 U.S.C. 6305(c) and 6311; subpart H issued under 5 U.S.C. 6133(a) (read with 5 U.S.C. 6129) and 6326(b); subpart I issued under 5 U.S.C. 6332, 6334(c), 6336(a)(1) and (d), and 6340; subpart J issued under 5 U.S.C. 6340, 6363, 6365(d), 6367(e), 6373(a); subpart K issued under 5 U.S.C. 6391(g); subpart L issued under 5 U.S.C. 6383(f); subpart M issued under sec. 2(d), Pub. L. 114–75, 129 Stat. 641 (5 U.S.C. 6329 note); and subpart P issued under 5 U.S.C. 6329c(d); and subpart Q issued under 5 U.S.C. 6387.

Subpart B—Definitions and General Provisions for Annual and Sick Leave

§ 630.210 [Amended]

■ 2. Amend § 630.210 by adding paragraph (d) to read as follows:

§ 630.210 Uncommon tours of duty.

* * * * *

(d) In applying § 550.805(g) of this chapter, and §§ 630.306(b), and 630.310(d), the referenced number of hours for full-time employees (416 hours and 208 hours) shall be proportionally adjusted based on the percentage amount by which the number of hours in the uncommon tour of duty exceeds the number of hours in a regular full-time tour of duty. For example, if the uncommon tour of duty consists of 120 hours in a biweekly pay period instead of the 80 hours for a regular full-time employee, the percentage adjustment would be 50 percent [(120/80) − 1]; accordingly, 416 hours would be converted to 624 hours and 208 hours would be converted to 312 hours.

Subpart C—Annual Leave

■ 3. Amend § 630.306 by revising paragraph (a) to read as follows:

§ 630.306 Time limit for use of restored annual leave.

(a) Except as otherwise authorized under paragraphs (b) and (c) of this section, § 630.310(d), or other regulation, annual leave restored under 5 U.S.C. 6304(d) must be scheduled and used not later than the end of the leave year ending 2 years after:

(1) The date of restoration of the annual leave forfeited because of administrative error; or

(2) The date fixed by the agency head, or his or her designee, as the termination date of the exigency of the public business that resulted in forfeiture of the annual leave; or

(3) The date the employee is determined to be recovered and able to return to duty if the leave was forfeited because of sickness.

* * * * *

■ 4. Amend § 630.308 by revising paragraph (a) to read as follows:

§ 630.308 Scheduling of annual leave.

(a) Except as provided in paragraph (b) of this section and § 630.310, before annual leave forfeited under 5 U.S.C. 6304 may be considered for restoration under that section, use of the annual leave must have been scheduled in writing before the start of the third biweekly pay period prior to the end of the leave year.

* * * * *

■ 5. Add § 630.310 to read as follows:

§ 630.310 Scheduling of annual leave by employees whose work is essential to respond to certain national emergencies.

(a)(1) The Director of OPM may deem a specific national emergency declared by the President under the National Emergencies Act (50 U.S.C. 1601, *et seq.*) to be an exigency of the public business for the purpose of restoring forfeited annual leave under 5 U.S.C. 6304(d)(1)(B) and will notify agencies in writing when this decision is made.

(2) The head of each agency is responsible for the proper administration of this authority. All heads of agencies are required to establish and periodically update (as necessary) procedures to administer this authority so that these policies are in place and immediately available for use any time the Director of OPM notifies agencies of a determination under paragraph (a)(1) of this section.

(b)(1) Once the Director of OPM has issued a notification to agencies under paragraph (a)(1), the head of each agency (or designee) must, in his or her sole and exclusive discretion, do the following:

(i) Make determinations identifying the specific employees or groups of employees who are performing services that are essential in responding to the national emergency designated as an exigency of the public business and who are thus qualified for coverage under this section; and

(ii) Inform covered employees in writing of any such determination and its application to them.

(2) A determination under paragraph (b)(1)(i) of this section may not be made by any official whose leave would be affected by the determination.

(c) For any employee determined under paragraph (b) of this section to be covered under this section who forfeits

annual leave under 5 U.S.C. 6304(d)(1)(B) at the beginning of a leave year, the forfeited annual leave is deemed to have been scheduled in advance for the purpose of 5 U.S.C. 6304(d)(1)(B) and § 630.308.

(d) With respect to annual leave forfeited under paragraph (c) of this section, the annual leave must be restored under 5 U.S.C. 6304(d)(1)(B) subject to the following time limits:

(1) A full-time employee must schedule and use excess annual leave of 416 hours or less by the end of the leave year in progress 2 years after the date fixed by the agency head (or designee) under paragraph (f)(2) of this section as the termination date of the exigency of the public business. The agency must extend this period by 1 leave year for each additional 208 hours of excess annual leave or any portion thereof.

Note 1 to paragraph (d)(1): For an employee on an uncommon tour of duty, the conversion rules in § 630.210(d) regarding the referenced number of hours for full-time employees (416 hours and 208 hours) must be applied.

(2) A part-time employee must schedule and use excess annual leave in an amount equal to or less than 20 percent of the number of hours in the employee's scheduled annual tour of duty by the end of the leave year in progress 2 years after the date fixed by the agency head (or designee) under paragraph (f)(2) of this section as the termination date of the exigency of the public business. The agency must extend this period by 1 leave year for each additional number of hours of excess annual leave, or any portion thereof, equal to 10 percent of the number of hours in the employee's scheduled annual tour of duty.

(e) The time limits established under paragraphs (d)(1) and (d)(2) of this section for using restored annual leave accounts shall not apply for the entire period during which an employee's services are determined by the agency to be essential for the response to the national emergency. When coverage under paragraphs (b) and (c) of this section ends due to the termination date of the exigency of the public business fixed by the agency under paragraph (f)(2), a new time limit will be established under paragraph (d) of this section for all annual leave restored to an employee under 5 U.S.C. 6304(d).

(f)(1) The agency head (or designee) must continually monitor the agency response to the national emergency and determine whether the services of individual employees or groups of employees continue to be essential for the response to the emergency such that annual leave may not be scheduled according to the normal procedures described in § 630.308(a).

(2) The agency head (or designee) must fix a date as the termination date of the exigency of the public business for each employee or group of employees as provided in this paragraph. The exigency of the public business as it affects an individual employee or group of employees must be terminated on the date one of the following events occurs, whichever is earliest:

(i) When the President declares an end to the national emergency;

(ii) When the Director of OPM deems the national emergency to no longer be an exigency of the public business for purposes of this authority;

(iii) When the agency head (or designee), in his or her sole and exclusive discretion, determines that the services of an employee or group of employees are no longer essential to the response to the national emergency or that such employees are able to follow the normal leave scheduling procedures in § 630.308(a);

(iv) On the day that is 12 months after the national emergency has been declared, an agency head (or designee), in his or her sole and exclusive discretion, may extend this deadline annually by an additional 12 months; under no circumstances may an agency grant more than two 12-month extensions under this paragraph in connection with any national emergency (however, § 630.309 may apply in the case of an extended exigency); or

(v) When an employee whose services were determined to be essential during the national emergency moves to a position not involving services determined by the agency to be essential to the response to the national emergency.

(3) The agency head (or designee) must inform both the affected employees and the agency payroll provider in writing of the termination date as determined in paragraph (f)(2) of this section.

(g) When the agency head (or designee) fixes a termination date of the exigency of the public business under paragraph (f) of this section, each affected employee must make a reasonable effort to comply with the scheduling requirement in § 630.308(a). The head of the agency (or designee), in his or her sole and exclusive discretion, may exempt such an employee from the advance scheduling requirement in § 630.308(a) if coverage under paragraphs (a) and (b) of this section terminated during the leave year and if the head of the agency (or designee) determines that the employee was unable to comply with the advance scheduling requirement because of circumstances beyond the employee's control.

§ 630.311 [Removed]

■ 6. Remove § 630.311.

[FR Doc. 2020–16823 Filed 8–7–20; 8:45 am]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2018–0180; Project Identifier 2017–CE–043–AD; Amendment 39–21146; AD 2020–13–01]

RIN 2120–AA64

Airworthiness Directives; Daher Aircraft Design, LLC (Type Certificate Previously Held by Quest Aircraft Design, LLC), Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: The FAA is correcting an airworthiness directive (AD) that published in the **Federal Register**. The AD applies to all Daher Aircraft Design, LLC (type certificate previously held by Quest Aircraft Design, LLC), Model KODIAK 100 airplanes. As published, the type certificate (TC) holder in the regulatory heading that identifies the AD is incorrect. This document corrects that error. In all other respects, the original document remains the same; however, for clarity, the FAA is publishing the entire rule in the **Federal Register**.

DATES: This correction is effective August 17, 2020. The effective date of AD 2020–13–01 remains August 17, 2020.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 17, 2020 (85 FR 41906, July 13, 2020).

ADDRESSES: For service information identified in this final rule, contact Kodiak Aircraft Company, Inc., 1200 Turbine Drive, Sandpoint, Idaho 83864; phone: (208) 263–1111 or 1 (866) 263–1112; email: *KodiakCare@daher.com;* internet: *http://Kodiak.aero/support.* You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the

availability of this material at the FAA, call 816–329–4148. It is also available on the internet at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2018–0180.

Examining the AD Docket

You may examine the AD docket on the internet at *https://www.regulations.gov;* or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, any comments received, and other information. The address for Docket Operations is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Wade Sullivan, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3530; email: *Wade.Sullivan@faa.gov.*

SUPPLEMENTARY INFORMATION: As published, AD 2020–13–01, Amendment 39–21146 (85 FR 41906, July 13, 2020), applies to all Daher Aircraft Design, LLC (type certificate previously held by Quest Aircraft Design, LLC), Model KODIAK 100 airplanes. AD 2020–13–01 requires a one-time inspection to determine if an affected nose landing gear (NLG) fork is installed, repetitive inspections of the affected NLG fork for cracks, repetitive inspections of the shimmy damper bracket for looseness and of the shimmy damper system for damaged components if an affected NLG fork is installed, and rework/replacement of parts as necessary.

Need for the Correction

As published, the TC holder in the regulatory heading that identifies the AD is incorrect. The heading incorrectly identified the TC holder as ''Quest Aircraft Design, LLC.'' The correct TC holder is Daher Aircraft Design, LLC (Type Certificate previously held by Quest Aircraft Design, LLC).

Although no other part of the preamble or regulatory information has been corrected, for clarity, the FAA is publishing the entire rule in the **Federal Register**.

The effective date of this AD remains August 17, 2020.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Quest Aircraft Field Service Instruction FSI–147, Revision 00, Release Date January 29, 2018, which provides instructions for inspection and, if necessary, replacement of the NLG fork. The FAA reviewed pages 32_110 and 32_111, section 3252, Shimmy Damper, Chapter 32, Landing Gear, of Quest Aircraft Company Kodiak 100 Maintenance Manual, Revision No. 21, dated February 15, 2017, which contains procedures for inspecting the shimmy damper system. The FAA also reviewed Quest Aircraft Field Service Instruction FSI–146, Revision 00, Release Date April 18, 2017, which provides instructions for modifying the shimmy damper attach bracket. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Good Cause for Adoption Without Prior Notice

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency for ''good cause'' finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Section 553(d)(3) of the APA requires that agencies publish a rule not less than 30 days before its effective date, except as otherwise provided by the agency for good cause found and published with the rule.

Since this action only corrects the TC holder in a regulatory heading, the FAA finds that notice and public comment under 5 U.S.C. 553(b) is unnecessary. For the same reason, the FAA finds that good cause exists under 5 U.S.C. 553(d) for making this rule effective in less than 30 days.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Correction

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Corrected]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020–13–01 Daher Aircraft Design, LLC (Type Certificate previously held by Quest Aircraft Design, LLC): Amendment 39–21146; Docket No. FAA–2018–0180; Project Identifier 2017–CE–043–AD.

(a) Effective Date

This airworthiness directive (AD) is effective August 17, 2020.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Daher Aircraft Design, LLC (type certificate previously held by Quest Aircraft Design, LLC), Model KODIAK 100 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Unsafe Condition

This AD was prompted by reports from the manufacturer of fatigue cracks on the nose landing gear (NLG) fork. The FAA is issuing this AD to detect and prevent fatigue cracking of the NLG fork. The unsafe condition, if not corrected, could result in separation of the NLG fork with consequent reduced control on landing. If the NLG fork separates on an unimproved surface, the risk of the NLG digging in and the airplane overturning on the ground increases.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection for Type of NLG Fork

Within 25 hours time-in-service (TIS) after August 17, 2020 (the effective date of this AD), inspect the airplane to determine if an NLG fork part number (P/N) 100–410–7001 (type A) or an NLG fork P/N 100–410–7013 (type B) is installed. If you determine that an NLG fork P/N 100–410–7013 (type B) is installed during the inspection, no further action is required by this AD. If a review of the maintenance records can identify the P/N NLG fork that is installed, you may use a maintenance records review in lieu of inspecting the airplane to determine if an NLG fork P/N 100–410–7001 (type A) or an NLG fork P/N 100–410–7013 (type B) is installed.

(h) Inspection of the NLG Fork for Cracks

(1) If you determine that an NLG fork P/N 100–410–7001 (type A) is installed during

the inspection required by paragraph (g) of this AD, within 25 hours TIS after August 17, 2020 (the effective date of this AD) and thereafter at intervals not to exceed 200 hours TIS, do a fluorescent penetrant, dye penetrant, or open-hole eddy current inspection of the NLG fork for cracks by following section 5. Instructions in Quest Aircraft Field Service Instruction FSI–147, Revision 00, Release Date January 29, 2018.

(2) If you find any cracks of the NLG fork during any inspection required by paragraph (h)(1) of this AD, before further flight, replace the NLG fork with an NLG fork P/N 100–410–7013 (type B). Replacement of the NLG fork with an NLG fork P/N 100–410–7013 (type B) terminates the repetitive inspections required by paragraphs (h)(1) and (i)(1) of this AD.

(i) Inspection of the Shimmy Damper Bracket

(1) If you have not replaced an NLG fork P/N 100–410–7001 (type A) per the initial inspection and replacement requirements in paragraph (h) of this AD, then within 25 hours TIS after August 17, 2020 (the effective date of this AD) and thereafter at intervals not to exceed 200 hours TIS (until the NLG fork is replaced with a P/N 100–410–7013 (type B) fork), inspect the shimmy damper bracket for looseness, and inspect the shimmy damper system for damaged (loose, leaking, corroded, or worn) components, by following pages 32_110 and 32_111, section 3252, Shimmy Damper, found in Chapter 32, Landing Gear, of Quest Aircraft Company Kodiak 100 Maintenance Manual, Revision No. 21, dated February 15, 2017.

(2) If a loose shimmy damper bracket is found during any inspection required by paragraph (i)(1) of this AD, rework the shimmy damper bracket with interference-fit bolts by following Quest Aircraft Field Service Instruction FSI–146, Revision 00, Release Date April 18, 2017. Reworking the shimmy damper bracket with the interference-fit bolts terminates the repetitive inspections required by paragraph (i)(1) of this AD.

(3) If any other damaged components are found in the shimmy damper system during any inspection required by paragraph (i)(1) of this AD, before further flight, replace the damaged components.

(j) Optional Terminating Action

In lieu of the NLG fork and shimmy damper bracket inspections required by paragraphs (h)(1) and (i)(1) of this AD, you may replace the NLG fork P/N 100–410–7001 (type A) with an NLG fork P/N 100–410–7013 (type B). This replacement terminates the inspection requirements of this AD, and no further actions are required.

(k) Restriction of NLG Fork P/N 100–410–7001 (Type A) Installation

Once an NLG fork P/N 100–410–7013 (type B) is installed on an airplane, do not install an NLG fork P/N 100–410–7001 (type A). If an NLG fork P/N 100–410–7013 (type B) is removed from the airplane for any reason (for example, to install floats), you must reinstall an NLG fork P/N 100–410–7013 (type B) when operating with wheels.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (m) of this AD. Information may also be emailed to: *9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(m) Related Information

For more information about this AD, contact Wade Sullivan, Aerospace Engineer, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3530; email: *Wade.Sullivan@faa.gov.*

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on August 17, 2020 (85 FR 41906, July 13, 2020).

(i) Pages 32_110 and 32_111, section 3252, Shimmy Damper, Chapter 32, Landing Gear, of Quest Aircraft Company Kodiak 100 Maintenance Manual, Revision No. 21, dated February 15, 2017.

(ii) Quest Aircraft Field Service Instruction FSI–146, Revision 00, Release Date April 18, 2017.

Note 1 to paragraph (n)(2)(ii) of this AD: The Release Date is a pen-and-ink addition that appears only on the Revision Notice transmitted with FSI–146.

(iii) Quest Aircraft Field Service Instruction FSI–147, Revision 00, Release Date January 29, 2018.

Note 2 to paragraph (n)(2)(iii) of this AD: The Release Date is a pen-and-ink addition that appears only on the Revision Notice transmitted with FSI–147.

(4) For service information identified in this AD, contact Kodiak Aircraft Company, Inc., 1200 Turbine Drive, Sandpoint, Idaho 83864; phone: (208) 263–1111 or 1 (866) 263–1112; email: *KodiakCare@daher.com;* internet: *http://Kodiak.aero/support.*

(5) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816–329–4148.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fedreg.legal@nara.gov,* or go to *https://www.archives.gov/federal-register/cfr/ibrlocations.html.*

Issued on August 3, 2020.

Ross Landes,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2020–17273 Filed 8–7–20; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF THE TREASURY

Financial Crimes Enforcement Network

31 CFR Part 1010

Financial Crimes Enforcement Network; Withdrawal of the Notice of Finding Involving Banco Delta Asia SARL (BDA)

AGENCY: Financial Crimes Enforcement Network (FinCEN), Treasury.

ACTION: Withdrawal of finding.

SUMMARY: This document withdraws FinCEN's finding that BDA is a financial institution of primary money laundering concern, which was issued pursuant to Section 311 of the USA PATRIOT Act (Section 311). Subsequent to the issuance of this withdrawal, FinCEN will reassess whether BDA is presently a financial institution of primary money laundering concern and additional rulemaking is warranted. Elsewhere in this issue of the **Federal Register**, FinCEN is publishing a repeal of the related rulemaking, published March 19, 2007, imposing the fifth special measure against BDA.

DATES: As of August 10, 2020, the Notice of Finding, published September 20, 2005, at 70 FR 55214, is withdrawn.

FOR FURTHER INFORMATION CONTACT: The FinCEN Resource Center at *frc@fincen.gov.*

I. Statutory Background

On October 26, 2001, the President signed into law the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Public Law 107–56 (USA PATRIOT Act). Title III of the USA PATRIOT Act amends the anti-money laundering provisions of the Bank Secrecy Act (BSA), codified at 12 U.S.C. 1829b, 12 U.S.C. 1951–1959, and 31 U.S.C. 5311–5314, 5316–5332, to promote the prevention, detection, and prosecution of international money laundering and the financing of terrorism. Regulations implementing the BSA appear at 31 CFR chapter X. The authority of the

Secretary of the Treasury to administer the BSA and its implementing regulations has been delegated to the Director of FinCEN.

Section 311 of the USA PATRIOT Act grants the Secretary the authority, upon finding that reasonable grounds exist for concluding that a foreign jurisdiction, foreign financial institution, class of transactions, or type of account is of ''primary money laundering concern,'' to require domestic financial institutions and financial agencies to take certain ''special measures'' to address the primary money laundering concern. The five special measures enumerated under Section 311 are prophylactic safeguards that defend the U.S. financial system from money laundering and terrorist financing. FinCEN may impose one or more of these special measures in order to protect the U.S. financial system from these threats. To that end, special measures one through four, codified at 31 U.S.C. 5318A(b)(1)–(b)(4), impose additional recordkeeping, information collection, and information reporting requirements on covered U.S. financial institutions. The fifth special measure, codified at 31 U.S.C. 5318A(b)(5), allows the Secretary to prohibit or impose conditions on the opening or maintaining of correspondent or payable-through accounts by covered U.S. financial institutions for or on behalf of a foreign banking institution.

Taken as a whole, Section 311 provides the Secretary with a range of options that can be adapted to target specific money laundering and terrorist financing concerns most effectively. These options provide the authority to bring additional and necessary pressure on those jurisdictions and institutions that pose money-laundering threats and the ability to take steps to protect the U.S. financial system. Through the imposition of various special measures, FinCEN can: Gain more information about the concerned jurisdictions, financial institutions, transactions, and accounts; monitor more effectively the respective jurisdictions, financial institutions, transactions, and accounts; and, ultimately, protect U.S. financial institutions from involvement with jurisdictions, financial institutions, transactions, or accounts that pose a money laundering concern.

II. Administrative Background

On September 20, 2005 (70 FR 55214), FinCEN published a finding in the **Federal Register** that reasonable grounds existed to conclude that BDA was a foreign financial institution of primary money laundering concern (Notice of Finding).[1] Simultaneous with publication of the Notice of Finding, FinCEN published a Notice of Proposed Rulemaking proposing the imposition of the fifth special measure against BDA.[2] On March 19, 2007 (72 FR 12730), FinCEN published a final rule in the **Federal Register** imposing the fifth special measure against BDA, codified at 31 CFR 103.193 (subsequently renumbered as 31 CFR 1010.655) (Final Rule).[3]

Shortly after FinCEN concluded its rulemaking proceedings, in April 2007, BDA submitted a petition requesting the immediate rescission of the Final Rule. The following month, Stanley Au and Delta Asia Group (Holdings) Ltd., the owners of BDA, filed a separate petition for rescission of the Final Rule. FinCEN denied both petitions on September 21, 2007. On November 16, 2010, BDA again petitioned FinCEN to repeal the Final Rule. As part of an ongoing dialogue between FinCEN and BDA from 2012 through 2019, BDA agreed to arrange for two independent reviews of the bank, the results of which were subsequently shared with FinCEN.

By letter dated September 26, 2019, FinCEN ultimately denied BDA's November 2010 petition, providing BDA a memorandum thoroughly explaining its decision. In its denial, FinCEN discussed the results of the independent reviews of BDA and identified the limitations in these reviews. FinCEN acknowledged that BDA had taken steps to address some of the deficiencies highlighted in the Notice of Finding and Final Rule, but concluded that BDA had failed to correct other significant deficiencies. FinCEN ultimately determined that BDA's AML compliance efforts remained inadequate to address the risks identified in the Notice of Finding and Final Rule.

In addition to petitioning FinCEN to withdraw the Final Rule, BDA filed suit on March 14, 2013, in the United States District Court for the District of Columbia challenging the Notice of Finding and the Final Rule. This litigation was stayed for many years so that the dialogue described above could continue. Both FinCEN and BDA have since agreed that there are advantages to FinCEN's revisiting the Final Rule and to settling this litigation. This course of action allows BDA to submit any remaining additional comments and permits FinCEN to take stock of the present circumstances and, if appropriate, to avail itself of the informal rulemaking process (providing the public with an opportunity for notice and comment, in contrast to action on a petition) if it decides to take further action. As part of this settlement, FinCEN has agreed to reassess whether BDA is presently a financial institution of primary money laundering concern. BDA will be permitted to submit comments to FinCEN regarding the September 26, 2019 petition denial prior to FinCEN's engaging in any additional Section 311 rulemaking involving BDA.

In the event that FinCEN determines that the imposition of any special measures may be warranted, it will undertake a new rulemaking effort (including the publication of a new notice of proposed rulemaking). Any such proposed rule will allow for 30 days of comment, and as part of the rulemaking proceeding, FinCEN will make available for comment the unclassified, non-protected material relied upon by FinCEN in connection with any such rulemaking. If FinCEN determines that a final rule is appropriate, FinCEN will publish such a final rule 60 days following the close of the comment period. If the extent of submitted comments requires additional time, or if COVID–19-related issues hinder the agency's ability to satisfy the proposed timeframes, FinCEN will so announce in the **Federal Register**.

III. Withdrawal of the Notice of Finding

For the reasons set forth above, FinCEN hereby withdraws the Notice of Finding that BDA is of primary money laundering concern published on September 20, 2005.

Michael Mosier,

Deputy Director, Financial Crimes Enforcement Network.

[FR Doc. 2020–17144 Filed 8–7–20; 8:45 am]

BILLING CODE 4810–02–P

[1] 70 FR 55214 (Sept. 20, 2005).

[2] *Id.* at 55217.

[3] 72 FR 12731 (Mar. 19, 2007).

DEPARTMENT OF THE TREASURY

Financial Crimes Enforcement Network

31 CFR Part 1010

RIN 1506–AA83

Financial Crimes Enforcement Network; Repeal of Special Measure Involving Banco Delta Asia (BDA)

AGENCY: Financial Crimes Enforcement Network (FinCEN), Treasury.

ACTION: Final rule.

SUMMARY: This rule repeals regulations concerning Special measures against Banco Delta Asia, which were issued pursuant to Section 311 of the USA PATRIOT Act (Section 311). Subsequent to the issuance of this rule, FinCEN will

reassess whether BDA is presently a financial institution of primary money laundering concern and additional rulemaking is warranted. Elsewhere in this issue of the **Federal Register**, FinCEN is publishing a withdrawal of the finding regarding BDA, issued September 20, 2005.

DATES: Effective August 10, 2020.

FOR FURTHER INFORMATION CONTACT: The FinCEN Resource Center at *frc@fincen.gov.*

I. Statutory Background

On October 26, 2001, the President signed into law the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Public Law 107–56 (USA PATRIOT Act). Title III of the USA PATRIOT Act amends the anti-money laundering provisions of the Bank Secrecy Act (BSA), codified at 12 U.S.C. 1829b, 12 U.S.C. 1951–1959, and 31 U.S.C. 5311–5314, 5316–5332, to promote the prevention, detection, and prosecution of international money laundering and the financing of terrorism. Regulations implementing the BSA appear at 31 CFR chapter X. The authority of the Secretary of the Treasury to administer the BSA and its implementing regulations has been delegated to the Director of FinCEN.

Section 311 of the USA PATRIOT Act grants the Secretary the authority, upon finding that reasonable grounds exist for concluding that a foreign jurisdiction, foreign financial institution, class of transactions, or type of account is of ''primary money laundering concern,'' to require domestic financial institutions and financial agencies to take certain ''special measures'' to address the primary money laundering concern. The five special measures enumerated under Section 311 are prophylactic safeguards that defend the U.S. financial system from money laundering and terrorist financing. FinCEN may impose one or more of these special measures in order to protect the U.S. financial system from these threats. To that end, special measures one through four, codified at 31 U.S.C. 5318A(b)(1)–(b)(4), impose additional recordkeeping, information collection, and information reporting requirements on covered U.S. financial institutions. The fifth special measure, codified at 31 U.S.C. 5318A(b)(5), allows the Secretary to prohibit or impose conditions on the opening or maintaining of correspondent or payable-through accounts by covered U.S. financial institutions for or on behalf of a foreign banking institution.

Taken as a whole, Section 311 provides the Secretary with a range of options that can be adapted to target specific money laundering and terrorist financing concerns most effectively. These options provide the authority to bring additional and necessary pressure on those jurisdictions and institutions that pose money-laundering threats and the ability to take steps to protect the U.S. financial system. Through the imposition of various special measures, FinCEN can: Gain more information about the concerned jurisdictions, financial institutions, transactions, and accounts; monitor more effectively the respective jurisdictions, financial institutions, transactions, and accounts; and, ultimately, protect U.S. financial institutions from involvement with jurisdictions, financial institutions, transactions, or accounts that pose a money laundering concern.

II. Administrative Background

On September 20, 2005, FinCEN published a finding in the **Federal Register** that reasonable grounds existed to conclude that BDA was a foreign financial institution of primary money laundering concern (Notice of Finding).[1] Simultaneous with publication of the Notice of Finding, FinCEN published a Notice of Proposed Rulemaking proposing the imposition of the fifth special measure against BDA.[2] On March 19, 2007, FinCEN published a final rule in the **Federal Register** imposing the fifth special measure against BDA, codified at 31 CFR 103.193 (subsequently renumbered as 31 CFR 1010.655) (Final Rule).[3]

Shortly after FinCEN concluded its rulemaking proceedings, in April 2007, BDA submitted a petition requesting the immediate rescission of the Final Rule. The following month, Stanley Au and Delta Asia Group (Holdings) Ltd., the owners of BDA, filed a separate petition for rescission of the Final Rule. FinCEN denied both petitions on September 21, 2007. On November 16, 2010, BDA again petitioned FinCEN to repeal the Final Rule. As part of an ongoing dialogue between FinCEN and BDA from 2012 through 2019, BDA agreed to arrange for two independent reviews of the bank, the results of which were subsequently shared with FinCEN.

By letter dated September 26, 2019, FinCEN ultimately denied BDA's November 2010 petition, providing BDA a memorandum thoroughly explaining its decision. In its denial, FinCEN discussed the results of the independent reviews of BDA and identified the limitations in these reviews. FinCEN acknowledged that BDA had taken steps to address some of the deficiencies highlighted in the Notice of Finding and Final Rule, but concluded that BDA had failed to correct other significant deficiencies. FinCEN ultimately determined that BDA's AML compliance efforts remained inadequate to address the risks identified in the Notice of Finding and Final Rule.

In addition to petitioning FinCEN to withdraw the Final Rule, BDA filed suit on March 14, 2013, in the United States District Court for the District of Columbia challenging the Notice of Finding and the Final Rule. This litigation was stayed for many years so that the dialogue described above could continue. Both FinCEN and BDA have since agreed that there are advantages to FinCEN's revisiting the Final Rule and to settling this litigation. This course of action allows BDA to submit any remaining additional comments and permits FinCEN to take stock of the present circumstances and, if appropriate, to avail itself of the informal rulemaking process (providing the public with an opportunity for notice and comment, in contrast to action on a petition) if it decides to take further action. As part of this settlement, FinCEN has agreed to reassess whether BDA is presently a financial institution of primary money laundering concern. BDA will be permitted to submit comments to FinCEN regarding the September 26, 2019, petition denial prior to FinCEN's engaging in any additional Section 311 rulemaking involving BDA.

In the event that FinCEN determines that the imposition of any special measures may be warranted, it will undertake a new rulemaking effort (including the publication of a new notice of proposed rulemaking). Any such proposed rule will allow for 30 days of comment, and as part of the rulemaking proceeding, FinCEN will make available for comment the unclassified, non-protected material relied upon by FinCEN in connection with any such rulemaking. If FinCEN determines that a final rule is appropriate, FinCEN will publish such a final rule 60 days following the close of the comment period. If the extent of submitted comments requires additional time, or if COVID–19-related issues hinder the agency's ability to satisfy the proposed timeframes, FinCEN will so announce in the **Federal Register**.

III. Repeal of the Final Rule

For the reasons set forth above, FinCEN hereby repeals the Final Rule.

[1] 70 FR 55214 (Sept. 20, 2005).

[2] *Id.* at 55217.

[3] 72 FR 12731 (Mar. 19, 2007).

Elsewhere in this issue of the **Federal Register**, FinCEN is publishing a withdrawal of the Notice of Finding.

IV. Regulatory Matters

Although Section 553 of the Administrative Procedure Act (5 U.S.C. 551 *et seq.*) requires notice and an opportunity for comment before an agency issues a final rule as well as a 30-day delayed effective date, it provides that an agency may dispense with these procedures when good cause exists. In this final rule, FinCEN has found that public comment procedures and delaying the effective date of the removal of the regulation would be contrary to the public interest. As discussed earlier in this document, FinCEN has agreed to reassess whether BDA is presently a financial institution of primary money laundering concern. Accordingly, FinCEN has found that good cause exists to dispense with prior notice and comment and a delay in effective date.

A. Executive Order 12866

It has been determined that this rulemaking is not a significant regulatory action for purposes of Executive Order 12866. Accordingly, a regulatory impact analysis is not required.

B. Unfunded Mandates Reform Act of 1995

Section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), Public Law 104–4 (March 22, 1995), requires that an agency prepare a budgetary impact statement before promulgating a rule that may result in expenditure by state, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year. If a budgetary impact statement is required, section 202 of the Unfunded Mandates Act also requires an agency to identify and consider a reasonable number of regulatory alternatives before promulgating a rule. FinCEN has determined that it is not required to prepare a written statement under Section 202 and has concluded that on balance the rule provides the most cost effective and least burdensome alternative to achieve the objectives of the rule.

C. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*), FinCEN certifies that this final regulation likely will not have a significant economic impact on a substantial number of small entities. The regulatory changes in this final rule merely remove the current obligations for financial institutions under 31 CFR 1010.654.

D. Paperwork Reduction Act

This regulation discontinues the Office of Management and Budget Control Number 1506–0041 assigned to the final rule and, as a result, reduces the estimated average burden of one hour per affected financial institution, totaling 5,000 hours. This regulation contains no new information collection requirements subject to review and approval by the Office of Management and Budget under the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d) *et seq.*).

List of Subjects in 31 CFR Part 1010

Administrative practice and procedure, Banks and banking, Brokers, Counter-money laundering, Counter-terrorism, Foreign banking.

Authority and Issuance

For the reasons set forth above, 31 CFR part 1010 is amended as follows:

PART 1010—GENERAL PROVISIONS

■ 1. The authority citation for 31 CFR part 1010 continues to read as follows:

Authority: 12 U.S.C. 1829b and 1951–1959; 31 U.S.C. 5311–5314, 5316–5332; Title III, sec. 314, Pub. L. 107–56, 115 Stat. 307; sec. 701, Pub. L. 114–74, 129 Stat. 599.

§ 1010.655 [Removed]

■ 2. Section 1010.655 is removed.

Michael Mosier,

Deputy Director, Financial Crimes Enforcement Network.

[FR Doc. 2020–17143 Filed 8–7–20; 8:45 am]

BILLING CODE P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR 165

[Docket No. USCG–2018–0533]

Navigation and Navigable Waters, and Shipping; Technical, Organizational, and Conforming Amendments for U.S. Coast Guard Field Districts 5, 8, 9, 11, 13, 14, and 17

AGENCY: Coast Guard, DHS.

ACTION: Correcting amendments.

SUMMARY: On February 13, 2020, the Coast Guard published a final rule on Navigation and Navigable Waters, and Shipping; Technical, Organizational, and Conforming Amendments for U.S. Coast Guard Field Districts 5, 8, 9, 11, 13, 14, and 17. Effective March 16, 2020, that rule removed a security zone regulation when only the section heading for that regulation needed to be amended. This document corrects that error.

DATES: Effective August 10, 2020.

FOR FURTHER INFORMATION CONTACT: Dominique Christianson, Coast Guard, telephone 202–372–3856 or fax 202–372–8405.

SUPPLEMENTARY INFORMATION:

Correction

On February 13, 2020 the Coast Guard published a rule in the **Federal Register** (85 FR 8169), effective on March 16, 2020. Subsequent review of the rule revealed that it removed a security zone regulation, 33 CFR 165.809, when the only change needed was to amend the section heading for that regulation. Page 85 FR 8170 of the rule referred to a 2005 proposed rule (70 FR 9363) as support for removing the security zones in § 165.809, but that NPRM only proposed to ''remove the Port of Port Lavaca-Point Comfort security zone.'' And the final rule (70 FR 39176, 39178, July 7, 2005) that followed the NPRM revised § 165.809(a) so that it maintained the Corpus Christi Inner Harbor security zone. That 2005 rule also used the following section heading: § 165.809 Security Zone; Port of Corpus Christi Inner Harbor, Corpus Christi, TX.

All the 2020 rule should have done was to remove the reference to the Port of Port Lavaca-Point Comfort in the section heading. This document corrects the error of removing the Port of Corpus Christi Inner Harbor, Corpus Christi Safety Zone regulation by reinstating § 165.809 with the correct section heading.

We find good cause under 5 U.S.C. 553(d) to make this correction effective on its date of publication. Delaying its effective date would increase risk of vessel collisions as the security zone is needed to protect a portion of the waterway that has a high volume of commercial vessel traffic and military outload vessel traffic.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

Accordingly, 33 CFR part 165 is corrected by making the following correcting amendments:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add § 165.809 to read as follows:

§ 165.809 Security Zone; Port of Corpus Christi Inner Harbor, Corpus Christi, TX.

(a) *Location.* The following area is designated as a security zone: All waters of the Corpus Christi Inner Harbor from the Inner Harbor Bridge (U.S. Hwy 181) to, and including the Viola Turning Basin.

(b) *Regulations.* (1) No recreational vessels, passenger vessels, or commercial fishing vessels may enter the security zone unless specifically authorized by the Captain of the Port Corpus Christi or a designated representative.

(2) Recreational vessels, passenger vessels and commercial fishing vessels requiring entry into the security zone must contact the Captain of the Port Corpus Christi or a designated representative. The Captain of the Port may be contacted via VHF Channel 16 or via telephone at (361) 888–3162 to seek permission to transit the area. If permission is granted, all persons and vessels must comply with the instructions of the Captain of the Port, Corpus Christi or a designated representative.

(3) Designated representatives include U.S. Coast Guard commissioned, warrant, and petty officers.

(c) *Authority.* In addition to 46 U.S.C. 70034, the authority for this section includes 46 U.S.C. 70116.

Dated: June 11, 2020.

J.E. McLeod,

Acting Chief, Office of Regulations and Administrative Law.

[FR Doc. 2020–12916 Filed 8–7–20; 8:45 am]

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DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 100

[Docket Number USCG–2020–0361]

RIN 1625–AA08

Special Local Regulation; North Atlantic Ocean, Ocean City, MD

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary special local regulation for certain waters of the North Atlantic Ocean adjacent to Ocean City, MD. This action is necessary to provide for the safety of life on these navigable waters located at Ocean City, MD, during activities associated with an air show event from August 13, 2020, through August 16, 2020. This rule prohibits persons and vessels from entering the regulated area unless authorized by the Captain of the Port Maryland-National Capital Region or the Coast Guard Patrol Commander.

DATES: This rule is effective from August 13, 2020, through August 16, 2020. It will be enforced from 9 a.m. to 6 p.m. each day the rule is in effect.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov,* type USCG–2020–0361 in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this rule.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email MST2 Shaun Landante, U.S. Coast Guard Sector Maryland-National Capital Region; telephone 410–576–2516, email *Shaun.C.Landante@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COTP Captain of the Port
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of Proposed Rulemaking
PATCOM Coast Guard Patrol Commander
§ Section
U.S.C. United States Code

II. Background Information and Regulatory History

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because an NPRM would be impracticable and contrary to the public interest. On June 16, 2020, the Town of Ocean City, MD, notified the Coast Guard that it will be conducting the 2020 Ocean City Air Show from 10 a.m. to 5 p.m. on August 16, 2020. The annual air show consists of various types of military and civilian aircraft performing low-flying, high-speed precision maneuvers and aerial stunts. In addition to these two air show performance dates, approach and circle maneuvers will be conducted by the U.S. Navy's Blue Angels flight demonstration squadron aircraft between 10 a.m. and 5 p.m. on August 13, 2020, and a full practice show rehearsal will be conducted by all air show performers from 10 a.m. to 5 p.m. on August 14, 2020. We must establish this safety zone by August 13, 2020, to ensure the safety of particpants and nearby waterway users. Hazards from the air show event include risks of injury or death resulting from aircraft accidents, dangerous projectiles, hazardous materials spills, falling debris, and near or actual contact among participants and spectator vessels or waterway users if normal vessel traffic were to interfere with the event. Additionally, such hazards include participants operating near a designated navigation channel, as well as operating adjacent to a popular summer beach area and its numerous oceanside businesses.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Delaying the effective date of this rule would be impracticable and contrary to the public interest because immediate action is needed to respond to the potential safety hazards associated with the ''Ocean City Air Show '' event.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70041 (previously 33 U.S.C. 1231). The Captain of the Port Sector Maryland-National Capital Region (COTP) has determined that potential hazards associated with the air show, to be held from August 13, 2020 through August 16, 2020, will be a safety concern for anyone intending to participate in this event and for vessels that operate within specified waters of the North Atlantic Ocean. This rule is needed to protect personnel, vessels, and the marine environment in the navigable waters within the safety zone for the duration of this event.

IV. Discussion of the Rule

This rule establishes special local regulations from 9 a.m. on August 13, 2020, through 6 p.m. on August 16, 2020. The regulated area will cover all navigable waters of the North Atlantic Ocean within an area bounded by the following coordinates: Commencing at a point near the shoreline in the vicinity of 33rd Street, Ocean City, MD, latitude 38°21′48.8″ N, longitude 075°04′10″ W,

thence eastward to latitude 38°21′32″ N, longitude 075°03′12″ W, thence south to latitude 38°19′22.7″ N, longitude 075°04′09.5″ W, thence west to latitude 38°19′38.5″ N, longitude 075°05′05.4″ W, thence north along the shoreline to point of origin, located adjacent to Ocean City, MD. The duration of the zone and size of the regulated area are intended to ensure the safety of life on these navigable waters before, during and after the air show and its related activities, scheduled to take place from 10 a.m. on August 13, 2020, through 5 p.m. on August 16, 2020. No vessel or person will be permitted to enter the regulated area without obtaining permission from the COTP or a designated representative.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. Executive Order 13771 directs agencies to control regulatory costs through a budgeting process. This rule has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB), and pursuant to OMB guidance it is exempt from the requirements of Executive Order 13771.

This regulatory action determination is based on size, location and duration of the regulated area, which will impact a small designated area of the North Atlantic Ocean adjacent to Ocean City, MD for 36 total enforcement hours. The Coast Guard will issue a Broadcast Notice to Mariners via VHF–FM marine channel 16 about the status of the regulated area. Moreover, the rule will allow vessels and persons to seek permission to enter the regulated area.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section IV.A above, this proposed rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule will affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

C. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves implementation of regulations within 33 CFR part 100 applicable to organized marine events on the navigable waters of the United States that could negatively impact the safety of waterway users and shore side activities in the event area for 36 hours. It is categorically excluded from further review under paragraph L61 of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Memorandum for Record supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

List of Subjects in 33 CFR Part 100

Marine safety, Navigation (water), Reporting and recordkeeping requirements, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 100 as follows:

PART 100—SAFETY OF LIFE ON NAVIGABLE WATERS

■ 1. The authority citation for part 100 continues to read as follows:

Authority: 46 U.S.C. 70041; 33 CFR 1.05–1.

■ 2. Add § 100.T05–0361 to read as follows:

§ 100.T05–0361 Ocean City Air Show, North Atlantic Ocean, Ocean City, MD.

(a) *Regulated area.* The regulations in this section apply to all navigable waters of the North Atlantic Ocean within an area bounded by the following coordinates: Commencing at a point near the shoreline in vicinity of 33rd Street, Ocean City, MD, latitude 38°21′48.8″ N, longitude 075°04′10″ W, thence eastward to latitude 38°21′32″ N, latitude 075°03′12″ W, thence south to latitude 38°19′22.7″ N, longitude 075°04′09.5″ W, thence west to latitude 38°19′38.5″ N, longitude 075°05′05.4″ W, thence north along the shoreline to point of origin, located adjacent to Ocean City, MD. These coordinates are based on datum NAD 1983.

(b) *Definitions.* As used in this section—

Captain of the Port (COTP) Maryland-National Capital Region means the Commander, U.S. Coast Guard Sector Maryland-National Capital Region or any Coast Guard commissioned, warrant or petty officer who has been authorized by the COTP to act on his behalf.

Coast Guard Patrol Commander (PATCOM) means a commissioned, warrant, or petty officer of the U.S. Coast Guard who has been designated by the Commander, Coast Guard Sector Maryland-National Capital Region.

Official Patrol means any vessel assigned or approved by Commander, Coast Guard Sector Maryland-National Capital Region with a commissioned, warrant, or petty officer on board and displaying a Coast Guard ensign.

Participant means all persons and vessels registered with the event sponsor as participating in the Ocean City Air Show or otherwise designated by the event sponsor as having a function tied to the event.

(c) *Regulations.* (1) Except for participants and vessels already at berth, everyone other than participants are prohibited from entering, transiting through, anchoring in, or remaining within the regulated area described in paragraph (a) of this section unless authorized by the COTP Maryland-National Capital Region or PATCOM.

(2) To seek permission to enter, contact the COTP Maryland-National Capital Region at telephone number 410–576–2693 or on Marine Band Radio, VHF–FM channel 16 (156.8 MHz) or the PATCOM on Marine Band Radio, VHF–FM channel 16 (156.8 MHz). Those in the regulated area must comply with all lawful orders or directions given to them by the COTP Maryland-National Capital Region, PATCOM, or official patrol.

(3) Vessels are required to operate at a safe speed that minimizes wake while within the regulated area in a manner that would not endanger event participants or any other craft.

(4) The air show aerobatics area located within the regulated area described in paragraph (a) of this section is restricted to participants.

(5) The COTP Maryland-National Capital Region will provide notice of the regulated area through advanced notice via Fifth Coast Guard District Local Notice to Mariners, broadcast notice to mariners, and on-scene official patrols.

(d) *Enforcement officials.* The Coast Guard may be assisted with marine event patrol and enforcement of the regulated area by other Federal, State and local agencies.

(e) *Enforcement periods.* This section will be enforced from 9 a.m. to 6 p.m. on August 13, 2020, from 9 a.m. to 6 p.m. on August 14, 2020, from 9 a.m. to 6 p.m. on August 15, 2020, and, from 9 a.m. to 6 p.m. on August 16, 2020.

Dated: August 4, 2020.

Joseph B. Loring,

Captain, U.S. Coast Guard, Captain of the Port Maryland-National Capital Region.

[FR Doc. 2020–17480 Filed 8–7–20; 8:45 am]

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DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2012–1036]

Safety Zone Regulations; Recurring Marine Event in the Long Island Sound Captain of the Port Zone

AGENCY: Coast Guard, DHS.

ACTION: Notice of enforcement of regulation.

SUMMARY: The Coast Guard will enforce two safety zones in the Sector Long Island Sound area of responsibility on the dates and times listed in the table below. This action is necessary to provide for the safety of life on navigable waterways during the event. During the enforcement period, no person or vessel may enter the safety zone without permission of the Captain of the Port (COTP) Sector Long Island Sound or designated representative.

DATES: The Coast Guard will enforce the regulations in 33 CFR 165.151 Table 1 for the Lawrence Beach Club Fireworks on September 6, 2020, from 8:30 p.m. to 10:30 p.m.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice, call or email Petty Officer Chris Gibson, Waterways Management Division, U.S. Coast Guard Sector Long Island Sound; telephone 203–468–4565, email *Chris.A.Gibson@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Coast Guard will enforce the safety zones listed in 33 CFR 165.151 Table 1 for the Lawrence Beach Club fireworks and the Town of Babylon fireworks.

Under the provisions of 33 CFR 165.151, these events listed are established as a safety zone. During the enforcement period, persons and vessels are prohibited from entering into, transiting through, mooring, or anchoring within the safety zones unless they receive permission from the COTP or designated representative.

The Coast Guard will enforce the safety zones for item 7.5 in Table 1 in § 165.151 for the Lawrence Beach Club Fireworks on September 6, 2020, with a rain date of September 7. The safety zone is in effect from 8:30 p.m. to 10:30 p.m. for the waters of the Atlantic Ocean off Lawrence Beach Club, Atlantic Beach, NY in approximate position, 40°34′42.65″ N, 073°42′56.02″ W (NAD 83).

On August 5, the Coast Guard will enforce a safety zone for the Town of Babylon Annual Fireworks from 8:30 p.m. to 10:30 p.m. The safety zone is for the waters off Cedar Beach Town Park, Babylon, NY in approximate position, 40°37′53″ N, 073°20′12″ W (NAD 83). The rain date for the event is August 6.

This notice is issued under authority of 33 CFR 165 and 5 U.S.C. 552 (a). In addition to this notice in the **Federal Register**, the Coast Guard will provide the maritime community with advance notification of this enforcement period via the Local Notice to Mariners or marine information broadcasts. If the COTP determines that either safety zone need not be enforced for the full duration stated in this notice, a Broadcast Notice to Mariners may be

used to grant general permission to enter the regulated area.

Dated: July 24, 2020

E.J. Van Camp,

Captain, U.S. Coast Guard, Captain of the Port Long Island Sound.

[FR Doc. 2020–16524 Filed 8–7–20; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R06–OAR–2020–0363; FRL–10012–84–Region 6]

Findings of Failure To Submit State Implementation Plans Required for Attainment of the 2010 1-Hour Primary Sulfur Dioxide (SO_2) National Ambient Air Quality Standard (NAAQS)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking final action to find that Texas has failed to submit State Implementation Plans (SIPs) to satisfy certain nonattainment area planning requirements of the Clean Air Act (CAA) for the 2010 1-hour primary Sulfur Dioxide (SO_2) National Ambient Air Quality Standard (NAAQS). The purpose for the development and implementation of a nonattainment area SIP is to provide for attainment of the NAAQS as expeditiously as practicable following the designation of an area as nonattainment. This action establishes certain CAA deadlines for the EPA to impose sanctions if Texas does not submit a complete SIP for each nonattainment area addressing the outstanding requirements and for the EPA to promulgate a Federal Implementation Plan (FIP) to address any outstanding SIP requirements.

DATES: This action is effective on September 9, 2020.

FOR FURTHER INFORMATION CONTACT: General questions concerning this document should be addressed to Robert Imhoff, EPA Region 6, Air and Radiation Division, by telephone (214) 665–7262 or by email at *Imhoff.Robert@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Notice and Comment Under the Administrative Procedure Act (APA)

Section 553 of the APA, Title 5 United States Code (U.S.C.) Section 553(b)(3)(B), provides that, when an agency for good cause finds that notice and public procedures are impracticable, unnecessary or contrary to the public interest, the agency may issue a rule without providing notice and an opportunity for public comment. The EPA has determined that there is good cause for making this final agency action without prior proposal and opportunity for comment because no significant EPA judgment is involved in making findings of failure to submit SIPs, or elements of SIPs, required by the CAA, where states have made no submission to meet the requirement. Thus, notice and public procedures are unnecessary to take this action. The EPA finds that this constitutes good cause under 5 U.S.C. 553(b)(3)(B).

B. How can I get copies of this document and other related information?

The EPA has established a docket for this action under Docket ID No. EPA–R06–OAR–2020–0363. Publicly available docket materials are available electronically through *http://www.regulations.gov.* Out of an abundance of caution for members of the public and our staff, the EPA Region 6 office will be closed to the public to reduce the risk of transmitting COVID–19. Please call or email the contact listed above if you need alternative access to material indexed but not provided in the docket.

C. How is the preamble organized?

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II. Background

In June 2010, the EPA promulgated a new 1-hour primary SO_2 NAAQS of 75 parts per billion (ppb), which is met when the 3-year average of the annual 99th percentile of daily maximum 1-hour average concentrations does not exceed 75 ppb, as determined in accordance with Appendix T of Title 40 Code of Federal Regulations (40 CFR) part 50. *See* 40 CFR 50.17(a)–(b). On June 30, 2016, the EPA signed the final action designating 61 areas as part of the second round of area designations for the 2010 SO_2 NAAQS (published at 81 FR 45039, July 12, 2016).[1] On November 29, 2016, the EPA supplemented its Round 2 designations by signing a supplemental final action that included nonattainment designations for the 2010 1-hour primary SO_2 NAAQS for portions of Rusk and Panola Counties, portions of Freestone and Anderson Counties, and a portion of Titus County (''Round 2 Supplement'') (81 FR 89870, December 13, 2016). These latter area designations had an effective date of January 12, 2017.

Areas designated as nonattainment for the SO_2 NAAQS are subject to the general nonattainment area planning requirements of CAA section 172 and to the SO_2-specific planning requirements of subpart 5 of part D of Title I of the CAA (sections 191 and 192). All components of the SO_2 part D nonattainment area SIP, including the emissions inventory, attainment demonstration, reasonably available control measures (RACM) including reasonably available control technology (RACT), enforceable emission limitations and control measures, reasonable further progress (RFP) plan, nonattainment new source review (NNSR), and contingency measures, are

[1] The EPA completed its first round of initial area designations for the 2010 1-hour primary SO_2 NAAQS on August 5, 2013, with an effective date of October 4, 2013. Under a court order issued on March 2, 2015, the EPA is required to complete designations in three additional rounds of designations. The EPA must complete the final, Round 4 designations for the remaining undesignated areas of the country by no later than December 31, 2020. The findings in this document apply only to those areas that were designated as part of Round 2 on December 13, 2016, and where, as of signature of this action, Texas failed to submit required complete plans.

due to the EPA within 18 months of the effective date of designation of an area under CAA section 191. Thus, the nonattainment area SIPs for the Texas areas designated effective January 12, 2017, were due on July 13, 2018. These SIPs were required to demonstrate that their respective areas will attain the NAAQS as expeditiously as practicable, but no later than 5 years from the effective date of designation, or by January 12, 2022.

III. Consequences of Findings of Failure To Submit

If the EPA finds that a state has failed to make the required SIP submittal or that a submitted SIP is incomplete, then CAA section 179(a) establishes specific consequences, including the imposition of mandatory sanctions for the affected area, after a period of time, if within that period the state does not submit a complete SIP for the nonattainment area. Additionally, such a finding also triggers an obligation under CAA section 110(c) for the EPA to promulgate a FIP no later than 2 years after the finding of failure to submit if the affected state has not submitted, and EPA has not approved, the required SIP submittal.

If the EPA has not affirmatively determined that a state has made the required complete SIP submittal for an area within 18 months of the effective date of this rulemaking, then, pursuant to CAA section 179(a) and (b) and 40 CFR 52.31, the offset sanction identified in CAA section 179(b)(2) will apply in the affected nonattainment area. If the EPA has not affirmatively determined that the state has made a complete submission within 6 months after the offset sanction is imposed, then the highway funding sanction will apply in the affected nonattainment area, in accordance with CAA section 179(b)(1) and 40 CFR 52.31. The sanctions will not take effect if, within 18 months after the date of these findings, the EPA affirmatively determines that the affected state has made a complete SIP submittal addressing the deficiency for which the finding was made. Additionally, if the state makes the required SIP submittal and the EPA takes final action to approve the submittal within 2 years of the effective date of these findings, the EPA is not required to promulgate a FIP for the affected nonattainment area.

IV. Findings of Failure To Submit for State That Failed To Make a Nonattainment Area SIP Submittal

As of the date of signature of this action, Texas failed to make complete SIP submittals required under part D of Title 1 of the CAA by July 13, 2018, for the three areas designated nonattainment effective January 12, 2017. The EPA is, therefore, issuing Texas a finding of failure to submit for the following three nonattainment areas: Portions of Anderson-Freestone Counties, Texas; portions of Rusk-Panola Counties Texas; and a portion of Titus County, Texas.

TABLE 1—2010 1-HOUR PRIMARY SO_2 NAAQS NONATTAINMENT AREAS AFFECTED BY THESE FINDINGS OF FAILURE TO SUBMIT

State	Nonattainment area
Texas ...	Anderson-Freestone Counties(p),* Rusk-Panola Counties (p), and Titus County (p).

* (p) indicates partial county.

V. Environmental Justice Considerations

The EPA believes that the human health or environmental risks addressed by this action will not have disproportionately high or adverse human health or environmental effects on minority, low-income, or indigenous populations because it does not affect the level of protection provided to human health or the environment under the SO_2 NAAQS. The purpose of this rule is to make a finding that Texas failed to submit the required SIPs to provide for timely attainment of the 1-hour primary SO_2 NAAQS, which will result in certain CAA-required deadlines for actions to provide for such attainment. In finding that Texas failed to submit a complete SIP that satisfies the nonattainment area plan requirements under section 172 and subpart 5 of part D of Title I of the CAA (sections 191 and 192) for the 1-hour primary SO_2 NAAQS, this action does not adversely affect the level of protection provided for human health or the environment. Rather, it is intended that the actions and deadlines resulting from this notice will in fact lead to greater protection for United States citizens, including minority, low-income, or indigenous populations, by ensuring that states meet their statutory obligation to develop and submit SIPs to ensure that areas make progress toward attaining the 1-hour primary SO_2 NAAQS.

VI. Statutory and Executive Order Reviews

A. Executive Orders 12866: Regulatory Planning and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because it finds that Texas failed to meet the requirement in the CAA to submit SIPs under section 172 and subpart 5 of part D of Title I of the CAA (sections 191 and 192) for the SO_2 NAAQS.

C. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act. This final rule does not establish any new information collection requirement apart from what is already required by law. This rule relates to the requirement in the CAA for states to submit SIPs under section 172 and subpart 5 of part D of Title I of the CAA (sections 191 and 192) which address the statutory requirements that apply to areas designated as nonattainment for the SO_2 NAAQS.

D. Regulatory Flexibility Act (RFA)

I certify that this rule will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. The rule is a finding that Texas has not made the necessary SIP submission for certain nonattainment areas to meet the requirements of part D of title I of the CAA.

E. Unfunded Mandates Reform Act of 1995 (UMRA)

This action does not contain any unfunded mandate as described in UMRA 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on Texas, on the relationship between the national government and Texas, or on the distribution of power and

responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This rule finds that Texas has failed to complete the requirement in the CAA to submit SIPs under section 172 and subpart 5 of part D of Title I of the CAA (sections 191 and 192) for the SO_2 NAAQS. No tribe is subject to the requirement to submit an implementation plan under section 172 or under subpart 5 of part D of Title I of the CAA. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it is a finding that Texas has failed to submit a complete SIP that satisfies the nonattainment area plan requirements under section 172 and subpart 5 of part D of Title I of the CAA and does not directly or disproportionately affect children.

I. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations. In finding that Texas has failed to submit a complete SIP that satisfies the nonattainment area planning requirements under section 172 and subpart 5 of part D of Title I of the CAA, this action does not adversely affect the level of protection provided to human health or the environment.

L. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

M. Judicial Review

This final action consists of a Finding of Failure to Submit certain required SIP provisions for the three identified areas in Texas designated nonattainment for the 2010 SO_2 NAAQS. In accordance with the CAA Section 307(b)(1), petitions for judicial review of this action must be filed in the United States Court of Appeals for the 5th Circuit within 60 days from the date this final action is published in the **Federal Register**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Administrative practice and procedures, Air pollution control, Approval and promulgation of implementation plans, Incorporation by reference, Intergovernmental relations, and Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: July 28, 2020.

Kenley McQueen,

Regional Administrator, Region 6.

[FR Doc. 2020–16672 Filed 8–5–20; 4:15 pm]

BILLING CODE 6560–50–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 328

[Docket ID FEMA–2020–0018]

RIN 1660–AB01

Prioritization and Allocation of Certain Scarce and Critical Health and Medical Resources for Domestic Use

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Temporary final rule; extension of effective date with modifications.

SUMMARY: In April, the Federal Emergency Management Agency (FEMA) issued a temporary final rule to allocate certain health and medical resources for domestic use, so that these resources may not be exported from the United States without explicit approval by FEMA. The rule covered five types of personal protective equipment (PPE), outlined below. While this rule remains in effect, and subject to certain exemptions stated below, no shipments of such designated materials may leave the United States without explicit approval by FEMA. Through this extension, FEMA modifies the types of PPE covered and extends the duration of the temporary final rule.

DATES: *Effective date:* This rule is effective from August 10, 2020 until December 31, 2020.

ADDRESSES: You may review the docket by searching for Docket ID FEMA–2020–0018, via the Federal eRulemaking Portal: *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Daniel McMasters, Office of Policy and Program Analysis, 202–709–0661, *FEMA-DPA@fema.dhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

On April 10, 2020, FEMA published a temporary final rule in the **Federal Register** allocating certain health and medical resources for domestic use, so that these resources may not be exported from the United States without explicit approval by FEMA.[1] The rule aids the response of the United States to the spread of Coronavirus Disease 2019 (COVID–19) by ensuring that certain health and medical resources are appropriately allocated for domestic use. On April 21, 2020, FEMA

[1] 85 FR 20195 (Apr. 10, 2020). *See also* 85 FR 22622 (Apr. 23, 2020) (correcting the date filed from ''4–8–20'' to'' 4–7–20'').

published a notification of exemptions to the rule.[2] With the continued goal of ensuring that such materials are appropriately allocated for domestic use, FEMA is extending the temporary final rule and modifying the list of covered materials to reflect current domestic supply needs. The temporary final rule will remain in effect until December 31, 2020, unless sooner modified or terminated by the Administrator.

A. The Current COVID–19 Pandemic

COVID–19 is a communicable disease caused by severe acute respiratory syndrome coronavirus 2 (SARS–CoV–2), that was first identified as the cause of an outbreak of respiratory illness that began in Wuhan, Hubei Province, People's Republic of China. On January 30, 2020, the Director-General of the World Health Organization (WHO) declared that the outbreak of COVID–19 is a Public Health Emergency of International Concern under the International Health Regulations.[3] The following day, the Secretary of Health and Human Services (HHS) declared COVID–19 a public health emergency under Section 319 of the Public Health Service (PHS) Act.[4] On March 11, 2020, the WHO declared COVID–19 a pandemic. On March 13, 2020, the President issued a Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID–19) Outbreak under sections 201 and 301 of the National Emergencies Act, 50 U.S.C. 1601 *et seq.,* and consistent with section 1135 of the Social Security Act, 42 U.S.C. 1320b–5.[5] On March 13, 2020, the President declared a nationwide emergency under section 501(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, authorizing FEMA to provide assistance for emergency protective measures to respond to the COVID–19 pandemic.[6] FEMA subsequently issued 57 major disaster declarations in response to COVID–19 in every State, 5 territories, the Seminole Tribe of Florida, and the District of Columbia.[7]

Within the United States, widespread transmission of COVID–19 has occurred. Widespread transmission of COVID–19 has resulted and will continue to result in large numbers of people needing medical care at the same time. Public health and healthcare systems have become overwhelmed in some areas, with elevated rates of hospitalizations and deaths, as well as elevated demand for PPE, including the PPE covered by this rule.

B. Legal Authorities

FEMA is extending and modifying this temporary final rule as part of its response to the COVID–19 pandemic. The rule is issued pursuant to the following authorities, among others:

- The Defense Production Act of 1950, as amended (''DPA'' or ''the Act''), and specifically sections 101 and 704 of the Act, 50 U.S.C. 4511, 4554;
- Executive Order 13909, 85 FR 16227 (Mar. 23, 2020);
- Executive Order 13911, 85 FR 18403 (Apr. 1, 2020);
- Department of Homeland Security (DHS) Delegation Number 09052 Rev. 00.1, ''Delegation of Defense Production Act Authority to the Administrator of the Federal Emergency Management Agency'' (Apr. 1, 2020); and
- The Presidential Memorandum on Allocating Certain Scarce or Threatened Health and Medical Resources to Domestic Use (April 3, 2020).[8]

Under subsection 101(a) of the Act, 50 U.S.C. 4511(a), the President may (1) require that performance under contracts or orders (other than contracts of employment) which he deems necessary or appropriate to promote the national defense shall take priority over performance under any other contract or order, and, for the purpose of assuring such priority, require acceptance and performance of such contracts or orders in preference to other contracts or orders by any person he finds to be capable of their performance. The President may also (2) allocate materials, services, and facilities in such manner, upon such conditions, and to such extent as he shall deem necessary or appropriate to promote the national defense. FEMA refers to these authorities as relating to ''priority ratings'' and ''allocation,'' respectively.

Under subsection 101(b) of the Act, 50 U.S.C. 4511(b), the President may not use the aforementioned authorities to control the general distribution of any material in the civilian market unless the President finds (1) that such material is a scarce and critical material essential to the national defense, and (2) that the requirements of the national defense for such material cannot otherwise be met without creating a significant dislocation of the normal distribution of such material in the civilian market to such a degree as to create appreciable hardship.

Under subsection 101(d) of the Act, 50 U.S.C. 4511(d), the head of each Federal agency to which the President delegates authority under section 101 of the Act (1) shall issue, and annually review and update whenever appropriate, final rules, in accordance with 5 U.S.C. 553, that establish standards and procedures by which the priorities and allocations authority under section 101 is used to promote the national defense, under both emergency and nonemergency conditions; and (2) as appropriate and to the extent practicable, consult with the heads of other Federal agencies to develop a consistent and unified Federal priorities and allocations system.

On March 18, 2020, the President signed Executive Order 13909, which (among other things) contained a finding that health and medical resources needed to respond to the spread of COVID–19, including personal protective equipment and ventilators, meet the criteria specified in section 101(b) of the Act (50 U.S.C. 4511(b)).[9]

[2] 85 FR 22021 (Apr. 21, 2020).

[3] Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019–nCoV) (January 30, 2020), *available at https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov).*

[4] HHS, ''Determination that a Public Health Emergency Exists,'' *available at https://www.phe.gov/emergency/news/healthactions/phe/Pages/2019-nCoV.aspx* (Jan. 31, 2020).

[5] ''Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID–19) Outbreak,'' March 13, 2020, *available at https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/.*

[6] COVID–19 Emergency Declaration *available at https://www.fema.gov/news-release/2020/03/13/covid-19-emergency-declaration* (accessed July 28, 2020).

[7] See *https://www.fema.gov/disasters/ (accessed July 28, 2020).*

[8] *See* Memorandum on Allocating Certain Scarce or Threatened Health and Medical Resources to Domestic Use for the Secretary of Health and Human Services, the Secretary of Homeland Security, and the Administrator of the Federal Emergency Management Agency (Apr. 3, 2020), *https://www.whitehouse.gov/presidential-actions/memorandum-allocating-certain-scarce-threatened-health-medical-resources-domestic-use/* (last visited July 28, 2020).

[9] Executive Order 13909 also delegated to the Secretary of HHS authority under the DPA for the prioritization and allocation of health and medical resources to respond to the spread of COVID–19. Further, on March 23, 2020, the President signed Executive Order 13910, in which the President delegated to the Secretary of HHS the authority under section 102 of the Act to prevent hoarding and price gouging with respect to health and medical resources necessary to respond to the spread of COVID–19. On March 25, 2020, the Secretary of Health and Human Services designated under section 102 of the Act 15 categories of health and medical resources as scarce materials or materials the supply of which would be threatened by accumulation in excess of the reasonable demands of business, personal, or home consumption, or for the purpose of resale at prices

On March 27, 2020, the President signed Executive Order 13911, which (among other things) delegated to the Secretary of Homeland Security the President's authority under section 101 of the Act with respect to health and medical resources needed to respond to the spread of COVID–19 within the United States. The Executive Order provides that the Secretary of Homeland Security may use the authority under section 101 of the Act to determine, in consultation with the heads of other executive departments and agencies as appropriate, the proper nationwide priorities and allocation of health and medical resources, including by controlling the distribution of such materials (including applicable services) in the civilian market, for responding to the spread of COVID–19 within the United States.[10] The Secretary of Homeland Security has delegated his authorities under Executive Order 13911 to FEMA. *See* DHS Delegation 09052, Rev. 00.1 (Apr. 1, 2020).

Additionally, on April 3, 2020, the President signed a Memorandum on Allocating Certain Scarce or Threatened Health and Medical Resources to Domestic Use (the Memorandum). The Memorandum reaffirmed the delegations and findings contained in Executive Orders 13909 and 13911, including that health and medical resources needed to respond to the spread of COVID–19, including personal protective equipment (PPE), meet the criteria specified in section 101(b) of the Act, *i.e.,* that (1) such material is a scarce and critical material essential to the national defense, and (2) that the requirements of the national defense for such material cannot otherwise be met without creating a significant dislocation of the normal distribution of such material in the civilian market to such a degree as to create appreciable hardship. The Memorandum identified certain categories of PPE materials that the Secretary of HHS had previously designated as ''scarce or threatened'' for purposes of section 102 of the DPA, and further stated that to ensure that these materials remain in the United States for use in responding to the spread of COVID–19, it is the policy of the United States to prevent domestic brokers, distributors, and other intermediaries from diverting such PPE materials overseas.

In furtherance of such policy, the President directed the Secretary of Homeland Security, through the FEMA Administrator, and in consultation with the Secretary of HHS, to use any and all authority available under section 101 of the Act to allocate to domestic use, as appropriate, the five types of PPE identified in the Memorandum. On April 10, 2020, FEMA executed this direction by issuing the allocation order as a temporary final rule pursuant to the Memorandum, and with the authority delegated to the Secretary of Homeland Security in E.O. 13911 and re-delegated to the FEMA Administrator in DHS Delegation 09052 Rev. 00.1.[11]

Finally, on May 13, 2020, FEMA published an interim final rule to establish standards and procedures by which the priorities and allocations authority under section 101 is used to promote the national defense, under both emergency and nonemergency conditions.[12]

As the COVID–19 pandemic continues in the United States, the FEMA Administrator, in consultation with other agencies as appropriate, has determined that it must continue to allocate some materials contained in the April 10, 2020 temporary final rule for domestic use, but that it is no longer appropriate to continue the allocation of certain covered materials listed in the Memorandum due to changes in domestic supply and demand. In addition, FEMA has determined, consistent with the Memorandum and FEMA's authorities under section 101 of the DPA, that it is appropriate to designate an additional category of such materials. In short, FEMA has determined that the original temporary final rule must be extended, but the list of covered materials under such rule must be modified.

Consistent with the authority delegated to the Secretary of Homeland Security in E.O. 13911 and re-delegated to the FEMA Administrator in DHS Delegation 09052 Rev. 00.1, FEMA now issues this temporary final rule to extend and modify the allocation order.

II. Provisions of the Temporary Final Rule

Following consultation with the appropriate Federal agencies; pursuant to the President's direction; and as an exercise of the Administrator's priority order, allocation, and regulatory authorities under the Act, the Administrator has determined that the April 10, 2020 temporary final rule (''covered materials'') shall be extended temporarily, and that the list of scarce and critical materials identified in such temporary final rule shall be modified to reflect current domestic needs. The materials identified in this rule will continue to be allocated for domestic use, and may not be exported from the United States without explicit approval by FEMA. *See* 44 CFR 328.102(a).

The rule is necessary and appropriate to promote the national defense with respect to the covered materials because the domestic need for them exceeds the supply. Under this temporary final rule extension, before any shipments of such covered materials may leave the United States, U.S. Customs and Border Protection (CBP) will continue to detain the shipment temporarily, during which time FEMA will determine whether to return for domestic use, issue a rated order for, or allow the export of part or all of the shipment under section 101(a) of the Act, 50 U.S.C. 4511(a). FEMA will continue to make such a determination within a reasonable time of being notified of an intended shipment and will make all decisions consistent with promoting the national defense. *See* 44 CFR 328.102(b). FEMA will work to review and make determinations quickly and will endeavor to minimize disruptions to the supply chain.

In determining whether it is necessary or appropriate to promote the national defense to purchase covered materials, or allocate materials for domestic use, FEMA may continue to consult other agencies and will consider the totality of the circumstances, including the following factors: (1) The need to ensure that these items are appropriately allocated for domestic use; (2) minimization of disruption to the supply chain, both domestically and abroad; (3) the circumstances surrounding the distribution of the materials and potential hoarding or price-gouging concerns; (4) the quantity and quality of the materials; (5) humanitarian considerations; and (6) international relations and diplomatic considerations.

in excess of prevailing market prices (''anti-hoarding designation''). *See* 85 FR 17592 (Mar. 30, 2020). The Secretary of HHS later modified and extended this designation. *See* 85 FR 45895 (July 30, 2020). The anti-hoarding designation relates to domestic hoarding and price-gouging activity, and is conceptually distinct from, and serves different purposes than, this rulemaking.

[10] The Executive Order also delegated to the Secretary of Homeland Security the authority under section 102 of the Act to prevent hoarding and price gouging with respect to such resources, and requires that before exercising the authority under section 102 of the Act, the Secretary of Homeland Security shall consult with the Secretary of Health and Human Services.

[11] *See* 85 FR 20195 (Apr. 10, 2020).

[12] *See* 85 FR 28500 (May 13, 2020) (codified at 44 CFR part 333). In that interim final rule, FEMA noted that although FEMA effectuated the April allocation order via a temporary rule that predated the interim final rule, FEMA retains authority to administer and enforce that allocation order according to its terms, and to issue future allocation orders consistent with the procedures announced in the interim final rule. *See* 85 FR at 28505. FEMA has opted to extend the April allocation, with modifications, consistent with the form of the April order.

This extension to the rule continues the eleven exemptions that the Administrator has determined to be necessary or appropriate to promote the national defense. *See* 44 CFR 328.102(c).

Specifically, the Administrator has determined that FEMA will not purchase covered materials from shipments made by or on behalf of U.S. manufacturers with continuous export agreements with customers in other countries since at least January 1, 2020, so long as at least 80 percent of such manufacturer's domestic production of covered materials, on a per item basis, was distributed in the United States in the preceding 12 months. The Administrator decided that this exemption is necessary or appropriate to promote the national defense because it would limit the impact of this order on pre-existing commercial relationships, in recognition of the importance of these commercial relationships to the international supply chain, and for humanitarian reasons, in consideration of the global nature of the COVID–19 pandemic. If FEMA determines that a shipment of covered materials falls within this exemption, such materials may be transferred out of the United States without further review by FEMA, provided that the Administrator may waive this exemption and fully review shipments of covered materials subject to this exemption for further action by FEMA, if the Administrator determines that doing so is necessary or appropriate to promote the national defense. FEMA may develop additional guidance regarding which exports are covered by this exemption and encourages manufacturers to contact FEMA with specific information regarding their status under this exemption.

On April 21, 2020, FEMA published notification of ten additional exemptions to the original temporary final rule.[13] These exemptions will remain in effect for the new effective period of this rule, subject to the Administrator's discretion to waive, modify, or terminate such exemptions at any time in the future. The Administrator has determined that it continues to be necessary and appropriate in order to promote the national defense to exempt these categories of covered materials from the requirements of 44 CFR 328.102(a) and (b). The Administrator may establish, in his discretion, additional exemptions that he determines are necessary or appropriate to promote the national defense and will announce any such exemptions by notice in the **Federal Register**.

FEMA will continue to implement this rule with the cooperation and assistance of other U.S. Government agencies, including CBP, and will work with manufacturers, brokers, distributors, exporters, and shippers to ensure that the applicable requirements are carried out. Any covered materials intended for export may be detained by CBP while FEMA conducts its review of the shipment. FEMA will review the shipment and provide notification as soon as possible regarding the disposition of the covered materials under this order, provided that any goods that have been detained by CBP and are subsequently made subject to a DPA-rated order will be consigned to FEMA pending further distribution or agency direction. FEMA may provide additional guidance regarding the application of any exemptions to this temporary final rule, as appropriate.

FEMA is modifying the original temporary final rule at section 328.103(a) to update the designation of covered materials under the rule. FEMA is reducing the list of covered materials to four types of PPE as these modifications reflect current domestic demand, as indicated by the number of open requests for such materials from State, local, Tribal, and territorial (SLTT) jurisdictions. Specifically—

- FEMA is continuing the designation of N95 Filtering Facepiece Respirators as covered materials, with one modification. In the original temporary final rule, FEMA designated ''N95 Filtering Facepiece Respirators, including devices that are disposable half-face-piece non-powered air-purifying particulate respirators intended for use to cover the nose and mouth of the wearer to help reduce wearer exposure to pathogenic biological airborne particulates.'' This temporary final rule modifies the existing language by adding the word, ''surgical'' to clarify the types of N95 Filtering Facepiece Respirators subject to this order. N95 respirators for medical use are still subject to high demand within the United States, and supply is not expected to catch up with demand until January 2021. As of August 4, 2020, FEMA had open requests for over 6 million N95 respirators from SLTT jurisdictions. Because this demand is specific to surgical N95 respirators and does not include industrial respirators, FEMA is clarifying that the list only covers surgical N95 respirators.
- FEMA is continuing the designation of PPE surgical masks as covered materials due to the continued inability of domestic supply to meet current demands. As of August 4, 2020, FEMA had open requests for over 28 million surgical masks from SLTT jurisdictions.
- FEMA is also continuing the designation of PPE gloves or surgical gloves as covered materials, with modification. FEMA is narrowing the scope of the materials covered to PPE nitrile gloves, specifically those defined at 21 CFR 880.6250 (exam gloves) and 878.4460 (surgical gloves) and other such nitrile gloves intended for the same purposes. Domestic supply for latex and vinyl examination and surgical gloves has largely caught up with demand, but there is still a significant shortage of nitrile gloves. As of August 4, 2020, FEMA had open requests for over 139 million nitrile gloves from SLTT jurisdictions.
- FEMA is adding designations for Level 3 and 4 Surgical Gowns and Surgical Isolation Gowns that meet all of the requirements in ANSI/AAMI PB70[14] and ASTM F2407–06[15] and are classified by Surgical Gown Barrier Performance based on AAMI PB70 to the covered materials list at this time as domestic supply is not meeting demand. As of August 4, 2020, FEMA had open requests for over 11 million of these gowns from SLTT jurisdictions.
- FEMA is eliminating two items from the covered materials list as there are currently no indications that supply is not meeting domestic demand to require these items to continue to be subject to this order. FEMA is removing other filtering facepiece respirators as this category of respirator has seen a significant drop in the number of orders received from SLTT jurisdictions and the current supply is sufficient to fill demand from these jurisdictions. FEMA is also removing elastomeric, air-purifying respirators and appropriate particulate filters/cartridges from the list of covered materials as these items have seen low demand from SLTT jurisdictions and FEMA has been able to fill all orders that have been placed for these items in the past 45 days, as of July 16, 2020.

Note that this rule covers only those PPE items described above; it does not cover other forms of PPE not described in the rule, such as cloth-based masks.

Consistent with the DPA and the original temporary final rule, FEMA may continue to conduct such

[13] 85 FR 22021 (Apr. 21, 2020).

[14] ANSI/AAMI PB70 is the second edition of the standard for liquid barrier performance of protective apparel.

[15] The American Society for Testing and Material (ASTM) F2407 is an umbrella document which describes testing for surgical gowns: Tear resistance, seam strength, lint generation, evaporative resistance, and water vapor transmission.

investigations and issue such requests for information as may be necessary for the enforcement of the Act, including this rule. *See* 44 CFR 328.104(a); *see also* section 705 of the Act, 50 U.S.C. 4555; Executive Order 13911, 85 FR 18403 (Apr. 1, 2020). FEMA may seek an injunction or other order whenever, in the Administrator's judgment, a person has engaged or is about to engage in any acts or practices which constitute or will constitute a violation of the Act or any rule or order issued thereunder. *See* 44 CFR 328.104(b); *see also* section 706 of the Act, 50 U.S.C. 4556. In addition to an injunction, failure to comply fully with this rule is a crime punishable by a fine of not more than $10,000 or imprisonment for not more than one year, or both. *See* 44 CFR 328.104(c); *see also* section 103 of the Act, 50 U.S.C. 4513. In addition, pursuant to 18 U.S.C. 554, whoever fraudulently or knowingly exports or sends from the United States, or attempts to export or send from the United States, any merchandise, article, or object contrary to any U.S. law or regulation, or receives, conceals, buys, sells, or in any manner facilitates the transportation, concealment, or sale of such merchandise, article, or object, prior to exportation, knowing the same to be intended for exportation contrary to any U.S. law or regulation, faces up to 10 years' imprisonment, a fine, or both, if convicted.

At any point in time, and to the extent consistent with United States policy, the FEMA Administrator may determine additional materials to be subject to this allocation order. Upon a determination under section 101(b) of the DPA that an additional material is a scarce and critical material essential for national defense, and that being allocated to domestic use under this allocation order is the only way to meet national defense requirements without significant disruption to the domestic markets, the Administrator will include these additional materials in this allocation order, and will provide notification of this decision through publication in the **Federal Register**.

III. Regulatory Procedure and Analyses

A. Temporary Final Rule With Immediate Effective Date

As explained in the original temporary final rule,[16] agency rulemaking is generally governed by the agency rulemaking provisions of the Administrative Procedure Act (APA). *See* 5 U.S.C. 553. Such provisions generally require that, unless the rule falls within one of a number of enumerated exceptions, or unless another statute exempts the rulemaking from the requirements of the APA, FEMA must publish a notice of proposed rulemaking in the **Federal Register** that provides interested persons an opportunity to submit written data, views, or arguments, prior to finalization of regulatory requirements. Section 553(b)(B) authorizes a department or agency to dispense with the prior notice and opportunity for public comment requirement when the agency, for ''good cause,'' finds that notice and public comment thereon are impracticable, unnecessary, or contrary to the public interest.

This rule is exempt from the APA under section 709(a) of the Act, 50 U.S.C. 4559(a). Instead, this rule is issued subject to the provisions of section 709(b). Pursuant to section 709(b)(2) of the Act, the Administrator has concluded, based on the facts related to the COVID–19 pandemic, which already have been summarized in this document, that, with respect to this temporary final rule, urgent and compelling circumstances make compliance with the notice and comment requirements of section 709(b)(1) of the Act, 50 U.S.C. 4559(b)(1), impracticable. If final regulations become necessary, an opportunity for public comment will be provided for not less than 30 days before such regulations become final, pursuant to section 709(b)(2)(C) of the Act, 50 U.S.C. 4559(b)(2)(C).

Furthermore, the same facts that warrant waiver under section 709(b)(2) of the Act would constitute good cause for FEMA to determine, under the APA, that notice and public comment thereon are impractical, unnecessary, or contrary to the public interest, and that the temporary final rule should become effective on August 10, 2020, the date on which the original temporary final rule would expire. The exigent need for this rule is related to the COVID–19 pandemic.

Although the Federal Government, along with State and local governments, have taken preventative and proactive measures to slow the spread of COVID–19, and to treat those affected, the ongoing spread of COVID–19 within the Nation's communities is straining the Nation's healthcare systems. It is imperative that health and medical resources needed to respond to the spread of COVID–19, including the PPE affected by this rule, continue to be allocated for domestic use as appropriate. Given the evolving nature of this pandemic and the frequently changing supply of and demand for the health and medical resources needed to combat it, full public notice and comment proceedings are impracticable. As explained earlier in the preamble, the volume of requests for certain health and medical resources continues to outpace domestic supply in some cases, while the domestic supply of other health and medical resources is now sufficient to meet the requests of SLTT jurisdictions. In addition, the number of requests fluctuates widely from day-to-day as FEMA receives the requests, evaluates them, and satisfies them.

FEMA is continuously monitoring SLTT jurisdictions' demand for these scarce and critical health and medical resources. This immediate action is needed to continue to ensure that such resources are appropriately allocated for domestic use, and to tailor the scope of such allocation to current needs as of the prior TFR's scheduled end-date.

In short, given the national and international emergency caused by COVID–19 and the continuously evolving nature of the situation, FEMA finds that urgent and compelling circumstances have made it impracticable and contrary to the public health—and, by extension, the public interest—to delay these implementing regulations until a full public notice-and-comment process is completed. This temporary final rule modification and extension is needed to appropriately allocate scarce and critical materials for domestic use, based on current needs.

The measures described in this rule are being issued on a temporary basis. This temporary final rule will cease to be in effect on December 31, 2020, unless sooner modified or terminated by the Administrator.

B. Executive Orders 12866 and 13563

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, and public health and safety effects; distributive impacts; and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. Section 3(f) of Executive Order 12866 defines a ''significant regulatory action'' as an action that is likely to result in a regulation (1) having an annual effect on the economy of $100 million or more in any one year, or adversely and materially affecting a sector of the

[16] 85 FR 20195 (Apr. 10, 2020).

economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities (also referred to as ''economically significant''); (2) creating a serious inconsistency or otherwise interfering with an action taken or planned by another agency; (3) materially altering the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raising novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The Office of Management and Budget has designated this temporary final rule as an economically significant regulatory action. Given that the temporary final rule is a significant regulatory action, FEMA proceeds under the emergency provision of Executive Order 12866, section 6(a)(3)(D) based on the need for immediate action, as described above, based on the need for immediate action to ensure these health and medical resources are appropriately allocated for domestic use.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires that when an agency issues a proposed rule, or a final rule that the agency issues under 5 U.S.C. 553 after being required by that section or any other law to publish a general notice of proposed rulemaking, the agency must prepare a regulatory flexibility analysis that meets the requirements of the RFA and publish such analysis in the **Federal Register**. 5 U.S.C. 603, 604.

This is neither a proposed rule, nor a final rule that the agency has issued under 5 U.S.C. 553 of this title after being required by that section or any other law to publish a general notice of proposed rulemaking. This is a temporary final rule issued without a prior proposed rule, under the separate authority of the Defense Production Act of 1950. Accordingly, a regulatory flexibility analysis is not required.

D. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), 2 U.S.C. 1532, requires that covered agencies prepare a budgetary impact statement before promulgating a rule that includes any Federal mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector, of $100 million in 1995 dollars, updated annually for inflation. Currently, that threshold is approximately $172 million. If a budgetary impact statement is required, section 205 of the Unfunded Mandates Act also requires covered agencies to identify and consider a reasonable number of regulatory alternatives before promulgating a rule. DHS has determined that this rule is not expected to result in expenditures by State, local, and Tribal governments, or by the private sector, of $172 million or more in any one year. This rule imposes no requirements on State, local, and Tribal governments and, therefore, cannot require them to expend any funds, let alone $172 million. To the extent that this rule affects the private sector, it only prohibits conduct, namely certain exports. It does not require any private sector expenditures within the meaning of the Unfunded Mandates Act. Further, the rule is excluded from the Unfunded Mandates Act under 2 U.S.C. 1503(4) and (5).

E. National Environmental Policy Act (NEPA)

Under the National Environmental Policy Act of 1969 (NEPA), as amended, 42 U.S.C. 4321 *et seq.,* an agency must prepare an environmental assessment or environmental impact statement for any rulemaking that significantly affects the quality of the human environment. FEMA has determined that this rulemaking does not significantly affect the quality of the human environment and consequently has not prepared an environmental assessment or environmental impact statement.

Rulemaking is a major Federal action subject to NEPA. Categorical exclusion A3 included in the list of exclusion categories at Department of Homeland Security Instruction Manual 023–01–001–01, Revision 01, Implementation of the National Environmental Policy Act, Appendix A, issued November 6, 2014, covers the promulgation of rules, issuance of rulings or interpretations, and the development and publication of policies, orders, directives, notices, procedures, manuals, and advisory circulars if they meet certain criteria provided in A3(a–f). This temporary final rule meets Categorical Exclusion A3(a), ''Those of a strictly administrative or procedural nature''.

F. Executive Order 13132: Federalism

This rule has been reviewed under Executive Order 13132, Federalism, 64 FR 43255 (August 4, 1999). That Executive Order imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. DHS has determined that this temporary final rule will not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of Government. Furthermore, there are no provisions in this rule that impose direct compliance costs on State and local governments. Accordingly, DHS believes that the rule does not warrant additional analysis under Executive Order 13132.

G. Congressional Review Act

Under the Congressional Review Act (CRA), 5 U.S.C. 801–808, before a rule can take effect, the Federal agency promulgating the rule must: Submit to Congress and to the Government Accountability Office (GAO) a copy of the rule; a concise general statement relating to the rule, including whether it is a major rule; the proposed effective date of the rule; a copy of any cost-benefit analysis; descriptions of the agency's actions under the Regulatory Flexibility Act and the Unfunded Mandates Reform Act; and any other information or statements required by relevant executive orders.

FEMA has sent this rule to the Congress and to GAO pursuant to the CRA. The Office of Information and Regulatory affairs has determined that this rule is a ''major rule'' within the meaning of the CRA. As this rule contains FEMA's finding for good cause that notice and public procedure are impracticable, unnecessary, or contrary to the public interest, there is not a required delay in the effective date. *See* 5 U.S.C. 808.

List of Subjects in 44 CFR Part 328

Administrative practice and procedure, Business and industry, Government contracts, Health or medical resource, Hoarding, Investigations, Materials, National defense, Scarce materials, Strategic and critical materials, Threatened materials.

■ Accordingly, for the reasons set forth in the preamble, and effective from August 10, 2020 until December 31, 2020, chapter I of title 44 of the Code of Federal Regulations is amended by revising part 328 to read as follows:

PART 328—COVID–19 ALLOCATION ORDERS AND PRIORITY ORDER REVIEW UNDER THE DEFENSE PRODUCTION ACT

Sec.

328.101 Basis and purpose.
328.102 Requirements.
328.103 Designation of covered materials.
328.104 Investigations and injunctions; penalties.

Authority: Sections 101 *et seq.* of the Defense Production Act of 1950, 50 U.S.C. 4511, *et seq.;* Executive Order 13909, 85 FR 16227 (Mar. 23, 2020); Executive Order 13911, 85 FR 18403 (Apr. 1, 2020); DHS Delegation 09052, Rev. 00.1 (Apr. 1, 2020); Presidential Memorandum on Allocating Certain Scarce or Threatened Health and Medical Resources to Domestic Use (April 3, 2020).

§ 328.101 Basis and purpose.

(a) *Basis.* These rules are issued pursuant to section 101 of the Defense Production Act of 1950, as amended, 50 U.S.C. 4511, and complementary authorities, including such authorities as are contained in subchapter III of chapter 55 of title 50, United States Code (50 U.S.C. 4554, 4555, 4556, and 4559), which have been delegated to FEMA.

(b) *Purpose.* The purpose of these rules is to aid the response of the United States to the spread of COVID–19 by ensuring that scarce or threatened health and medical resources are appropriately allocated for domestic use.

§ 328.102 Requirements.

(a) *Allocation Order and Requirement for the Administrator's Approval.* All shipments of covered materials, as designated in § 328.103, shall be allocated for domestic use, and may not be exported from the United States without explicit approval by FEMA.

(b) *Procedures.* U.S. Customs and Border Protection (CBP), in coordination with such other officials as may be appropriate, will notify FEMA of an intended export of covered materials. CBP must temporarily detain any shipment of such covered materials, pending the Administrator's determination whether to return for domestic use or issue a rated order for part or all of the shipment, pursuant to the Administrator's delegated authorities. The Administrator will make such a determination within a reasonable timeframe after notification of an intended export.

(c) *Administrator's Determination.* In making the determination described in paragraph (b) of this section, the Administrator may consult other agencies and will consider the totality of the circumstances, including the following factors:

(1) The need to ensure that scarce or threatened items are appropriately allocated for domestic use;

(2) Minimization of disruption to the supply chain, both domestically and abroad;

(3) The circumstances surrounding the distribution of the materials and potential hoarding or price-gouging concerns;

(4) The quantity and quality of the materials;

(5) Humanitarian considerations; and

(6) International relations and diplomatic considerations.

(d) *Exemption.* (1) The Administrator has determined in the interest of promoting the national defense to generally allow the export of covered materials from shipments made by or on behalf of U.S. manufacturers with continuous export agreements with customers in other countries since at least January 1, 2020, so long as at least 80 percent of such manufacturer's domestic production of such covered materials, on a per item basis, was distributed in the United States in the preceding 12 months. If FEMA determines that a shipment of covered materials falls within this exemption, such materials may be exported without further review by FEMA, provided that the Administrator may waive this exemption and fully review shipments of covered materials under paragraph (b) of this section, if the Administrator determines that doing so is necessary or appropriate to promote the national defense. FEMA will communicate to CBP regarding the application of this exemption to shipments identified by CBP.

(2) The Administrator may establish, in his discretion, additional exemptions that he determines necessary or appropriate to promote the national defense and will announce any such exemptions by notice in the **Federal Register**.

(e) *Exportations prohibited.* The exportation of covered materials other than in accordance with this section is prohibited.

§ 328.103 Designation of covered materials.

(a) The Administrator has designated the following materials as ''covered materials'' under this part:

(1) Surgical N95 Filtering Facepiece Respirators, including devices that are disposable half-face-piece non-powered air-purifying particulate respirators intended for use to cover the nose and mouth of the wearer to help reduce wearer exposure to pathogenic biological airborne particulates;

(2) PPE surgical masks, including masks that cover the user's nose and mouth and provide a physical barrier to fluids and particulate materials;

(3) PPE nitrile gloves, including those defined at 21 CFR 880.6250 (exam gloves) and 878.4460 (surgical gloves) and such nitrile gloves intended for the same purposes; and

(4) Level 3 and 4 Surgical Gowns and Surgical Isolation Gowns that meet all of the requirements in ANSI/AAMI PB70 and ASTM F2407–06 and are classified by Surgical Gown Barrier Performance based on AAMI PB70.

(b) Upon determination that additional items are scarce and necessary for national defense, and that consideration under this allocation order is the only way to meet national defense requirements without significant disruption to the domestic markets, the Administrator may designate additional materials as ''covered materials'' in the list provided above. The Administrator will publish notice of these additional ''covered materials'' in the **Federal Register**.

§ 328.104 Investigations and injunctions; penalties.

(a) To administer or enforce this subpart, the Administrator may exercise the authorities available under section 705 of the Defense Production Act of 1950, as amended, 50 U.S.C. 4555, including the conduct of investigations, requests for information or testimony, and inspections of records or premises. Before such authorities are utilized, the Administrator will determine the scope and purpose of the investigation, inspection, or inquiry, and be assured that no adequate and authoritative data are available from any Federal or other responsible agency.

(b) Whenever, in the judgment of the Administrator, any person has engaged or is about to engage in any acts or practices that constitute or will constitute a violation of any provision of this subpart, or order issued thereunder, the Administrator may exercise the authorities available under section 706 of the Defense Production Act of 1950, as amended, 50 U.S.C. 4556, including applying for a preliminary, permanent, or temporary injunction, restraining order, or other order to enforce compliance with this subpart.

(c) Any person who willfully engages in violations of this part is subject to penalties available under section 103 of the Defense Production Act of 1950, as amended, 50 U.S.C. 4513, or other available authority.

Pete Gaynor,

Administrator, Federal Emergency Management Agency.

[FR Doc. 2020–17467 Filed 8–6–20; 11:15 am]

BILLING CODE 9111–19–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[FRS 16933; DA 20–719]

Radio Broadcasting Services; Various Locations

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: This document amends the FM Table of Allotments, of the Commission's rules, by reinstating certain vacant FM allotments. These FM allotments are considered vacant because of the cancellation of the associated authorizations and licenses, or the dismissal of long-form auction applications. Theses vacant FM allotments have previously undergone notice and comment rule making. Reinstatement of the vacant allotments is merely a ministerial action to effectuate licensing procedures. Therefore, we find for good cause that further notice and comment are unnecessary.

DATES: Effective August 10, 2020.

FOR FURTHER INFORMATION CONTACT: Rolanda F. Smith, Media Bureau, (202) 418–2700.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's *Order,* adopted July 10, 2020 and released July 10, 2020. The full text of this Commission decision is available online at *http://apps.fcc.gov/ecfs/.* This document does not contain information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. The Commission will not send a copy of the *Order* in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A) because the *Order* is a ministerial action.

List of Subjects in 47 CFR Part 73

Radio, Radio broadcasting.

Federal Communications Commission.

Nazifa Sawez,

Assistant Chief, Audio Division, Media Bureau.

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.

■ 2. In § 73.202 in paragraph (b) amend Table 1 by:

■ a. Under California adding, in alphabetical order, ''Avenal, Channel 269A,'', Coalinga, Channel 261B'', ''Dos Palos, Channel 240A'', ''Firebaugh, Channel 234A'', ''Ford City, Channel 271A'', ''King City, Channel 275A'', and ''Lindsay, Channel 277B1'';

■ b. Under Colorado adding, in alphabetical order, ''Calhan, Channel 284C3'', and ''Idalia, Channel 231A'';

■ c. Under Iowa revising the entry for ''Asbury'';

■ e. Under Texas adding, in alphabetical order, ''Hereford, Channel 278C2'', and ''Palacios, Channel 259C1'';

■ f. Under Virgin Islands adding, in alphabetical order, ''Charlotte Amalie, Channel *275A''.

§ 73.202 Table of Allotments.

* * * * *

(b) * * *

TABLE 1 TO PARAGRAPH (b)

	Channel No.
California	
* * *	* *
Avenal	269A
* * *	* *
Coalinga	261B
Dos Palos	240A
* * *	* *
Firebaugh	234A
Ford City	271A
* * *	* *
King City	275A
* * *	* *
Lindsay	277B1
* * *	* *
Colorado	
* * *	* *
Calhan	284C3
* * *	* *
Idalia	231A
* * *	* *
Iowa	
* * *	* *
Asbury	*254A

TABLE 1 TO PARAGRAPH (b)—Continued

	Channel No.
* * *	* *
Texas	
* * *	* *
Hereford	278C2
* * *	* *
Palacios	259C1
* * *	* *
Virgin Islands	
Charlotte Amalie	*275A
* * *	* *

[FR Doc. 2020–16152 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 635

[Docket No. 180117042–8884–02; RTID 0648–XA316]

Atlantic Highly Migratory Species; Atlantic Bluefin Tuna Fisheries

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.

SUMMARY: NMFS closes the Harpoon category fishery for large medium and giant (*i.e.,* measuring 73 inches (185 cm) curved fork length or greater) Atlantic bluefin tuna (BFT) through the end of the 2020 Harpoon category fishing season. Current regulations provide that the 2021 Harpoon category season begins June 1, 2021. The intent of this closure is to prevent further overharvest of the available Harpoon category BFT quota of 76 metric tons (mt).

DATES: Effective 11:30 p.m., local time, August 5, 2020, through November 15, 2020.

FOR FURTHER INFORMATION CONTACT: Sarah McLaughlin, 978–281–9260, Nicholas Velseboer, 978–675–2168, or Larry Redd, 301–420–8503.

SUPPLEMENTARY INFORMATION: Regulations implemented under the authority of the Atlantic Tunas Convention Act (ATCA; 16 U.S.C. 971 *et seq.*) and the Magnuson-Stevens Fishery Conservation and Management Act

(Magnuson-Stevens Act; 16 U.S.C. 1801 *et seq.*) governing the harvest of BFT by persons and vessels subject to U.S. jurisdiction are found at 50 CFR part 635. Section 635.27 subdivides the U.S. BFT quota recommended by the International Commission for the Conservation of Atlantic Tunas (ICCAT) among the various domestic fishing categories, per the allocations established in the 2006 Consolidated Highly Migratory Species Fishery Management Plan (2006 Consolidated HMS FMP) (71 FR 58058, October 2, 2006) and amendments, and in accordance with implementing regulations.

Under § 635.28(a)(1), NMFS files a closure notice with the Office of the Federal Register for publication when a BFT quota is reached or is projected to be reached. Retaining, possessing, or landing BFT under a quota category is prohibited on or after the effective date and time of a closure notice for that category until the opening of the relevant subsequent quota period or until such date as specified.

Harpoon Category Closure

The base quota for the Harpoon category is 46 mt. See § 635.27(a). Effective July 13, 2020, NMFS transferred 30 mt from the Reserve category to the Harpoon category, resulting in an adjusted subquota of 76 mt for the Harpoon category and 113 mt for the Reserve category (85 FR 43148, July 16, 2020).

Based on the best available landings information for the Harpoon category BFT fishery, NMFS has determined that the adjusted Harpoon category quota of 76 mt has been reached and exceeded (*i.e.,* as of August 4, reported landings total approximately 77.4 mt) and that the Harpoon category fishery should be closed. Therefore, retaining, possessing, or landing large medium or giant BFT by persons aboard vessels permitted in the Atlantic tunas Harpoon category must cease at 11:30 p.m. local time on August 5, 2020. The Harpoon category will reopen automatically on June 1, 2021, for the 2021 fishing season. This action applies to Atlantic tunas Harpoon category (commercial) permitted and is taken consistent with the regulations at § 635.28(a)(1). The intent of this closure is to prevent further overharvest of the available Harpoon category quota.

Monitoring and Reporting

NMFS will continue to monitor the BFT fisheries closely. Dealers are required to submit landing reports within 24 hours of a dealer receiving BFT. Late reporting by dealers compromises NMFS' ability to timely implement actions such as quota and retention limit adjustment, as well as closures, and may result in enforcement actions. Additionally, and separate from the dealer reporting requirement, Harpoon category vessel owners are required to report the catch of all BFT retained or discarded dead within 24 hours of the landing(s) or end of each trip, by accessing *hmspermits.noaa.gov,* using the HMS Catch Reporting app, or calling (888) 872–8862 (Monday through Friday from 8 a.m. until 4:30 p.m.).

Depending on the level of fishing effort and catch rates of BFT, NMFS may determine that additional adjustments are necessary to ensure available subquotas are not exceeded or to enhance scientific data collection from, and fishing opportunities in, all geographic areas. If needed, subsequent adjustments will be published in the **Federal Register**. In addition, fishermen may call the Atlantic Tunas Information Line at (978) 281–9260, or access *hmspermits.noaa.gov,* for updates on quota monitoring and inseason adjustments.

Classification

NMFS issues this action pursuant to section 305(d) of the Magnuson-Stevens Act. This action is required by 50 CFR part 635, which was issued pursuant to section 304(c), and is exempt from review under Executive Order 12866.

The Assistant Administrator for NMFS (AA) finds that pursuant to 5 U.S.C. 553(b)(B), there is good cause to waive prior notice of, and an opportunity for public comment on, for the following reasons: The regulations implementing the 2006 Consolidated HMS FMP and amendments provide for inseason retention limit adjustments to respond to the unpredictable nature of BFT availability on the fishing grounds, the migratory nature of this species, and the regional variations in the BFT fishery. This fishery is currently underway and delaying this action would be contrary to the public interest as it could result in BFT landings exceeding the Harpoon category quota. For all of the above reasons, there is good cause under 5 U.S.C. 553(d) to waive the 30-day delay in effectiveness.

Authority: 16 U.S.C. 971 *et seq.* and 1801 *et seq.*

Dated: August 5, 2020.

Jennifer M. Wallace,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17390 Filed 8–5–20; 4:15 pm]

BILLING CODE 3510–22–P

Proposed Rules

Federal Register
Vol. 85, No. 154
Monday, August 10, 2020

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2020–0680; Product Identifier 2020–NM–079–AD]

RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2016–25–29, which applies to certain The Boeing Company Model 767–200 and –300 series airplanes. AD 2016–25–29 requires replacing the cargo compartment insulation blankets on the left and right sides with new insulation blankets that incorporate fire stops. Since the FAA issued AD 2016–25–29, it was determined that an incorrect part number was specified for certain insulation blankets, and the FAA has determined that additional insulation blankets need to be replaced and that additional airplanes are subject to the unsafe condition. This proposed AD would continue to require the actions in AD 2016–25–29 for certain airplanes. This proposed AD would also add airplanes to the applicability and would require a general visual inspection of the replacement insulation blankets to determine if the blankets are in serviceable condition and correctly installed, and applicable on-condition actions. For certain airplanes, this AD would also require an inspection to determine the insulation blanket part number installed; replacement of additional insulation blankets; and applicable on-condition actions. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by September 24, 2020.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; internet *https://www.myboeingfleet.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available on the internet at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2020–0680.

Examining the AD Docket

You may examine the AD docket on the internet at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2020–0680; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3584; email: *Julie.Linn@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2020–0680; Product Identifier 2020–NM–079–AD'' at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *https://www.regulations.gov,* including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to the person identified in the **FOR FURTHER INFORMATION CONTACT** section. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The FAA issued AD 2016–25–29, Amendment 39–18755 (81 FR 94956, December 27, 2016) (''AD 2016–25–29''), for certain The Boeing Company Model 767–200 and –300 series airplanes. AD 2016–25–29 requires replacing the cargo compartment

insulation blankets on the left and right sides with new insulation blankets that incorporate fire stops. AD 2016–25–29 resulted from a report of a fire in the bilge area of the cargo compartment that burned through the insulation blankets that were intended to prevent smoke from migrating behind the cargo compartment sidewall liners and upward into the main cabin. The FAA issued AD 2016–25–29 to address a fire in the bilge area of the cargo compartment burning through the insulation blankets and consequently allowing smoke to migrate behind the cargo compartment sidewall liners and upward into the main cabin.

Actions Since AD 2016–25–29 Was Issued

Since the FAA issued AD 2016–25–29, it was determined that an incorrect part number was specified for certain insulation blankets. Based on those findings, the FAA determined that certain insulation blankets that were replaced, as required by AD 2016–25–29, must be replaced with those having the improved design. In addition, the FAA determined that additional insulation blankets need to be replaced and that additional airplanes are subject to the unsafe condition.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019. The service information describes procedures for replacing cargo compartment insulation blankets between stringers 29 and 33, on the left and right sides, with new insulation blankets that incorporate fire stops; an inspection to determine the insulation blanket part number installed between stringers 29 and 33, on the left and right sides; a general visual inspection of the replacement insulation blankets between stringers 29 and 33, on the left and right sides to determine if the blankets are in serviceable condition and correctly installed; and applicable on-condition actions. On-condition actions include repair, replacement, and correction of insulation blanket installations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

FAA's Determination

The FAA is proposing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

Although this proposed AD does not explicitly restate the requirements of AD 2016–25–29, this proposed AD would retain certain of the requirements of AD 2016–25–29. Those requirements are referenced in the service information identified previously, which, in turn, is referenced in paragraph (g) of this proposed AD. This proposed AD would add airplanes to the applicability. This proposed AD would also require accomplishment of the actions identified as ''RC'' (required for compliance) in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019, described previously.

For information on the procedures and compliance times, see this service information at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2020–0680.

Costs of Compliance

The FAA estimates that this proposed AD affects 329 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement (retained actions from AD 2016–25–29).	Up to 54 work-hours × $85 per hour = Up to $4,590.	*	Up to $4,590	Up to $1,510,110.
Inspections and replacements (new proposed action).	Up to 62 work-hour × $85 per hour = Up to $5,270.	Up to $35,900	Up to $41,170	Up to $13,944,530.

*The FAA has received no definitive data that would enable providing parts cost estimates for the retained actions specified in this proposed AD.

The FAA has received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all available costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative,

on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2016–25–29, Amendment 39–18755 (81 FR 94956, December 27, 2016), and adding the following new AD:

The Boeing Company: Docket No. FAA–2020–0680; Product Identifier 2020–NM–079–AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by September 24, 2020.

(b) Affected ADs

This AD replaces AD 2016–25–29, Amendment 39–18755 (81 FR 94956, December 27, 2016) (''AD 2016–25–29'').

(c) Applicability

This AD applies to The Boeing Company Model 767–200, –300, –300F, and –400ER series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019.

(d) Subject

Air Transport Association (ATA) of America Code 25, Equipment/furnishings.

(e) Unsafe Condition

This AD was prompted by a report of a fire in the bilge area of the cargo compartment that burned through the insulation blankets that were intended to prevent smoke from migrating behind the cargo compartment sidewall liners and upward into the main cabin. The FAA is issuing this AD to address a fire in the bilge area of the cargo compartment, which if not contained could lead to a possible smoke and fire event in the passenger compartment.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in paragraph 1.E., ''Compliance,'' of Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019, do all applicable actions identified as ''RC'' (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019.

(h) Exception to Service Information Specifications

Where Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019, uses the phrase ''the Revision 1 date of this service bulletin,'' this AD requires using ''the effective date of this AD.''

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to: *9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved previously for AD 2016–25–29 are approved as AMOCs for the corresponding provisions of Boeing Special Attention Service Bulletin 767–25–0550, Revision 1, dated December 4, 2019, that are required by paragraph (g) of this AD.

(5) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (i)(5)(i) and (ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled ''RC Exempt,'' then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(j) Related Information

(1) For more information about this AD, contact Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3584; email: *Julie.Linn@faa.gov.*

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; internet *https://www.myboeingfleet.com.* You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

Issued on July 29, 2020.

Gaetano A. Sciortino,

Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2020–17362 Filed 8–7–20; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 112

[Docket No. FDA–2020–N–1119]

Request for Information and Comments on Consumption of Certain Uncommon Produce Commodities in the United States; Establishment of a Public Docket

AGENCY: Food and Drug Administration, HHS.

ACTION: Notification; establishment of docket; request for comments.

SUMMARY: The Food and Drug Administration (FDA, the Agency, or we) is opening a docket to receive information and comments related to certain produce commodities with no or low reported consumption in the database relied on to create the list of rarely consumed raw commodities that are exempt from the Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption regulation. FDA intends to use the information to consider whether any of these commodities should be added to the rarely consumed raw list.

DATES: Submit either electronic or written comments by November 9, 2020.

ADDRESSES: You may submit comments as follows. Please note that late, untimely filed comments will not be

considered. Electronic comments must be submitted on or before November 9, 2020. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of November 9, 2020. Comments received by mail/hand delivery/courier (for written/paper submissions) will be considered timely if they are postmarked or the delivery service acceptance receipt is on or before that date.

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• Mail/Hand delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2020–N–1119 for ''Request for Information and Comments on Consumption of Certain Uncommon Produce Commodities in the United States.'' Received comments, those filed in a timely manner (see **ADDRESSES**), will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday, 240–402–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852, 240–402–7500.

FOR FURTHER INFORMATION CONTACT: Samir Assar, Center for Food Safety and Applied Nutrition (HFS–317), Food and Drug Administration, 5001 Campus Dr., College Park, MD 20740, 240–402–1636.

SUPPLEMENTARY INFORMATION:

I. Background

In the **Federal Register** of November 27, 2015, we issued the final rule, ''Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption'' (80 FR 74354), which established at 21 CFR part 112 science-based minimum standards for fruits and vegetables grown for human consumption (produce safety regulation). The produce safety regulation is one of the seven foundational regulations that we issued as part of our implementation of the FDA Food Safety Modernization Act (Pub. L. 111–353), which directs FDA to better protect public health by, among other things, adopting a modern, preventive, and risk-based approach to food safety.

Produce is subject to the produce safety regulation (*i.e.,* is ''covered produce'') unless it is ''not covered'' because it is: (1) Rarely consumed raw (RCR) (§ 112.2(a)(1) (21 CFR 112.2(a)(1))) (the RCR exemption); (2) produced for personal or on-farm consumption (§ 112.2(a)(2)); or (3) not a raw agricultural commodity (§ 112.2(a)(3)). This request for information pertains to certain commodities that were not categorized as RCR.

The RCR list is a list of produce commodities that we determined are almost always consumed in the United States only after being cooked. Cooking is a kill step that can be expected to adequately reduce the presence of microorganisms of public health significance in most cases. FDA concluded that it is not reasonably necessary to subject RCR commodities to the produce safety regulation.

FDA's classification of produce as RCR was based on food consumption patterns reported in a robust dataset: The National Health and Nutritional Examination Survey/What We Eat in America (NHANES/WWEIA) dataset (Ref. 1), which is the most comprehensive, robust, and nationally representative dataset currently available on dietary intake in the United States. We also used the U.S. Environmental Protection Agency's Food Commodity Intake Database (Ref. 2), which is a recipe database that identifies proportions of commodity ingredients in NHANES/WWEIA codes, and also identifies the cooking status (uncooked or cooked) and the food forms (*e.g.,* fresh, frozen, canned) associated with each commodity ingredient. We provided background information and data analyses informing the inclusion of produce commodities in the RCR list in a memorandum (the Produce RCR memorandum) that we made available in the administrative record of the produce safety rulemaking (Ref. 3).

Note that the identification of a commodity on the RCR list does not mean the produce is never eaten raw or that it is not eaten raw, typically or occasionally, in specific regions of the United States (or among specific ethnic

communities in the United States). The RCR list also does not reflect the form in which these commodities are consumed by populations in other countries.

Consumption patterns for a commodity had to meet three criteria that were used to determine if a commodity qualified as rarely consumed raw. First, the commodity had to be consumed uncooked by less than 0.1 percent of the United States population. Second, the commodity had to be consumed uncooked on less than 0.1 percent of eating occasions. Third, at least 1 percent of the weighted number of survey respondents must have reported consuming the commodity in any form for the data to provide a reasonable representation of how that commodity is consumed by U.S. consumers. The purpose of the third criteria was to ensure that we had sufficient data to provide a reasonable representation of how the commodity is consumed in the United States for the purpose of exempting commodities from the coverage of the produce safety regulation (80 FR 74354 at 74388). For commodities not reported as consumed by at least 1 percent of the weighted number of respondents, we consider the overall reported rate to be too low to justify relying on these data as a reasonable representation of consumption among all U.S. consumers.

Commodities that failed to satisfy all three NHANES/WWEIA food consumption criteria were not included in the RCR list. Several produce commodities satisfied the first two NHANES/WWEIA food consumption criteria for demonstrating that the commodities are almost always eaten only after being cooked, but are covered by the produce safety regulation because the 2003–2010 NHANES/WWEIA dataset did not demonstrate consumption of the commodities in any form by at least 1 percent of survey respondents. (See Response to Comments 68 and 69, 80 FR 74354 at 74392 to 74394.) In the remainder of this document, we refer to these commodities as ''produce commodities with low reported consumption.'' The following is an exhaustive list [1] of these produce commodities with low reported consumption according to the methodology used in developing the RCR list: Artichoke, globe-type; artichoke, Jerusalem; arugula; balsam pear; boysenberry; Brazil nut; breadfruit; broccoli, Chinese; brussels sprouts; burdock; cabbage, Chinese, bok choy; cabbage, Chinese, mustard; cabbage, Chinese, Napa; cactus; celeriac; chayote fruit; chestnut; Chinese waxgourd; chrysanthemum garland; citron; cress, garden; currant; dandelion leaves; dasheen (taro) (leaves and corm); fennel, Florence; genip; gooseberry; grape, leaves; guava; huckleberry; jicama; kale; kohlrabi; kumquat; leek; lime; lotus root; lychee; macadamia nut; mulberry; mustard greens; palm heart, leaves; parsnip; passion fruit; persimmon; pine nut; plantain; pomegranate; quince; radish, oriental, roots; rhubarb; rutabaga; shallot; soursop; soybean, sprouts; starfruit; swamp cabbage; sweetsop; Swiss chard; turnip (roots and greens); and yam.

Some produce commodities did not appear in the NHANES/WWEIA at all; a commodity is added to NHANES/WWEIA partly based on the number of times the new food is reported and partly based on whether a new reported food has nutrient contents that are very different from the nutrient contents of a food that already exists in the database. In the remainder of this document we refer to these commodities as ''produce commodities with no reported consumption.'' Arrowroot and fiddleheads are examples of produce commodities with no reported consumption.

As we stated when we issued the produce safety final rule, we will consider updating the list of RCR commodities if new data become available (80 FR 74354 at 74390). We therefore invite interested persons to submit data, information, and/or comment to support whether particular commodities with either no or low reported consumption in NHANES/WWEIA should be categorized as RCR. We seek commodity-specific data that would indicate whether that particular fruit or vegetable is consumed cooked by almost all consumers across the United States at this time. To be most useful, newly submitted data should be quantitative data of U.S. consumption patterns that are sufficiently robust such that we could draw from them scientifically valid conclusions. The data should clearly indicate what proportion of the population consumes the commodity in the uncooked form and/or how often the commodity is consumed uncooked compared to the cooked form. Results of a well-designed consumer survey would be one possible type of data that may be submitted. Market data that closely parallels consumer consumption data may also be helpful. Another type of data that could be useful is data indicating that a commodity cannot safely be consumed uncooked, *e.g.,* because in its uncooked state it contains toxic properties. We also request information on any kill steps other than cooking (*e.g.,* fermentation that adequately reduces microorganisms of public health significance) that are always or almost always applied to produce commodities with no or low reported consumption and data on the extent to which this kill step is applied consistently across the industry.

For this Request for Information, FDA is requesting data, information, and comments from all interested parties, including, but not limited to, academic and government researchers, industry, and any other source. When submitting information, please include details about how the data were collected, including information on the study design and sample population, year(s) of data collection, a detailed summary of the methods and measures used (*e.g.,* any surveys utilized) and if available, the survey results (*i.e.,* raw data).

II. References

The following references are on display in the Dockets Management Staff (see **ADDRESSES**) and are available for viewing by interested persons between 9 a.m. and 4 p.m., Monday through Friday; they are also available electronically at *https://www.regulations.gov.* FDA has verified the website address, as of the date this document publishes in the **Federal Register**, but websites are subject to change over time.

1. Center for Disease Control and Prevention, National Center for Health Statistics. ''National Health and Nutrition Examination Survey/What We Eat in America (NHANES/WWEIA).'' Available at *https://www.cdc.gov/nchs/nhanes/wweia.htm.* Last accessed July 23, 2020.
2. Environmental Protection Agency Office of Pesticide Programs and University of Maryland Joint Institute for Food Safety and Applied Nutrition. ''What We Eat in America—Food Commodity Intake Database, 2005–2010 (WWEIA–FCID 2005–10).'' Available at *https://fcid.foodrisk.org/.* Last accessed July 23, 2020.
3. Tijerina, M. J., J. Johanson, J. Spungen, and S. Briguglio, ''Memorandum to the File—Produce Rarely Consumed Raw,''

[1] The original analysis included amaranth, which we have not included here because it is a grain, and grains are not ''produce'' as that term is defined by the produce safety regulation. See 21 CFR 112.3(c). We have also omitted from this list several pulse commodities (*e.g.,* dry pea) because that group of commodities is under separate consideration. See the discussion related to pulses in our guidance entitled ''Guidance for Industry: Enforcement Policy for Entities Growing, Harvesting, Packing, or Holding Hops, Wine Grapes, Pulse Crops, and Almonds;'' available at *https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-enforcement-policy-entities-growing-harvesting-packing-or-holding-hops-wine-grapes.*

October 2015. Available in Docket No. FDA–2011–N–0921 at *https://www.regulations.gov.*

Dated: July 28, 2020.

Lauren K. Roth,

Associate Commissioner for Policy.

[FR Doc. 2020–16800 Filed 8–5–20; 4:15 pm]

BILLING CODE 4164–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2020–0136; FRL–10012–22–Region 9]

Air Plan Partial Approval and Partial Disapproval; California; San Diego

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to partially approve and partially disapprove revisions to the San Diego Air Pollution Control District (SDAPCD) portion of the California State Implementation Plan (SIP). These revisions concern the District's demonstration regarding reasonably available control technology (RACT) requirements and negative declarations for the 2008 ozone national ambient air quality standards (NAAQS or ''standards'') in the San Diego ozone nonattainment area (NAA) under the jurisdiction of the SDAPCD. We are taking comments on this proposal and plan to follow with a final action.

DATES: Comments must be received on or before September 9, 2020.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–2020–0136 at *https://www.regulations.gov.* For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov.* The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Nancy Levin, EPA Region IX, 75 Hawthorne St., San Francisco, CA 94105. By phone: (415) 972–3848 or by email at *levin.nancy@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us'' and ''our'' refer to the EPA.

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I. The State's Submittal

A. What document did the State submit?

Table 1 lists the document addressed by this proposal with the date that it was adopted by the local air agency and submitted by the California Air Resources Board (CARB).

TABLE 1—SUBMITTED DOCUMENT

Local agency	Document	Adopted	Submitted
SDAPCD	2008 Eight-Hour Ozone Reasonably Available Control Technology Demonstration for San Diego County (''2016 RACT SIP'').	12/14/16	4/12/2017

On October 12, 2017, the submittal for the SDAPCD 2016 RACT SIP was deemed by operation of law to meet the completeness criteria in 40 CFR part 51 Appendix V, which must be met before formal EPA review.

B. Are there other versions of this document?

There are no previous versions of the RACT SIP and negative declarations in the SDAPCD portion of the California SIP for the 2008 ozone NAAQS.

C. What is the purpose of the submitted document?

Emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_X) contribute to the production of ground-level ozone, smog and particulate matter (PM), which harm human health and the environment. Section 110(a) of the CAA requires states to submit regulations that control VOC and NO_X emissions. Sections 182(b)(2) and (f) require that SIPs for ozone NAAs classified as Moderate or above implement RACT for any source covered by a Control Techniques Guidelines (CTG) document and for any major source of VOCs or NO_X. The SDAPCD is subject to this requirement as it regulates the San Diego ozone NAA that was designated and classified as a Moderate NAA for the 2008 ozone NAAQS at the time of submittal.[1] Therefore, the SDAPCD must, at a minimum, adopt RACT-level controls for all sources covered by a CTG document and for all major non-CTG sources of VOC or NO_X emissions within the ozone NAA that it regulates. Any stationary source that emits or has the potential to emit at least 100 tons per year (tpy) of VOCs or NO_X is a major stationary source in a Moderate ozone NAA (CAA section 182(b)(2), (f) and 302(j)).

Section III.D of the preamble to the EPA's final rule to implement the 2008 ozone NAAQS discusses RACT requirements.[2] It states, in part, that RACT SIPs must contain adopted RACT regulations, certifications where appropriate that existing provisions are RACT, and/or negative declarations that

[1] The EPA has since reclassified the San Diego ozone nonattainment area to ''Serious'' because the EPA determined that the area had not attained the 2008 ozone standard by the ''Moderate'' applicable attainment date (July 20, 2018) and did not qualify for a 1-year extension of the Moderate area attainment date. 84 FR 44238 (August 23, 2019). SDAPCD will be required to make a separate, updated RACT submittal based on this new classification.

[2] 80 FR 12264, (March 6, 2015).

no sources in the NAA are covered by a specific CTG.[3] It also provides that states must submit appropriate supporting information for their RACT submissions as described in the EPA's implementation rule for the 1997 ozone NAAQS.[4] The submitted 2016 RACT SIP and negative declarations provide SDAPCD's analyses of its compliance with the CAA section 182 RACT requirements for the 2008 ozone NAAQS.

The EPA's technical support document (TSD) has more information about the District's RACT SIP, negative declarations, and the EPA's evaluations thereof. Our TSD is included in the docket materials.

II. The EPA's Evaluation and Action

A. How is the EPA evaluating the submitted document?

SIP rules must require RACT for each category of sources covered by a CTG document and for each major source of VOCs or NO_X in ozone NAAs classified as Moderate or above (CAA section 182(b)(2), (f)). At the time of submittal, the SDAPCD regulated a Moderate ozone NAA (40 CFR 81.305) for the 2008 ozone standard, so the District's rules must implement RACT for that standard.

States should also submit for SIP approval negative declarations for those source categories for which they have not adopted CTG-based regulations (because they have no sources above the CTG-recommended applicability threshold), regardless of whether such negative declarations were made for an earlier SIP.[5] To do so, the submittal should provide reasonable assurance that no sources subject to the CTG requirements currently exist in the portion of the ozone NAA that is regulated by the SDAPCD.

The District's analysis must demonstrate that each major source of VOCs or NO_X in the ozone NAA is covered by a RACT-level rule. In addition, for each CTG source category, the District must either demonstrate that a RACT-level rule is in place, or submit a negative declaration. Guidance and policy documents that we use to evaluate CAA section 182 RACT requirements include the following:

1. ''State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,'' 57 FR 13498 (April 16, 1992); 57 FR 18070 (April 28, 1992).
2. EPA Office of Air Quality Planning and Standards, ''Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations,'' May 25, 1988 (''the Bluebook,'' revised January 11, 1990).
3. EPA Region IX, ''Guidance Document for Correcting Common VOC & Other Rule Deficiencies,'' August 21, 2001 (''the Little Bluebook'').
4. ''State Implementation Plans; Nitrogen Oxides Supplement to the General Preamble; Clean Air Act Amendments of 1990 Implementation of Title I; Proposed Rule,'' (the NO_X Supplement), 57 FR 55620, (November 25, 1992).
5. Memorandum dated May 18, 2006, from William T. Harnett, Director, Air Quality Policy Division, to Regional Air Division Directors, Subject: ''RACT Qs & As—Reasonably Available Control Technology (RACT): Questions and Answers.''
6. ''Final Rule to Implement the 8-hour Ozone National Ambient Air Quality Standard—Phase 2,'' 70 FR 71612 (November 29, 2005).
7. ''Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements,'' 80 FR 12264 (March 6, 2015).

Rules that are submitted for inclusion into the SIP must be enforceable (CAA section 110(a)(2)), must not interfere with applicable requirements concerning attainment and reasonable further progress or other CAA requirements (CAA section 110(l)), and must not modify certain SIP control requirements in NAAs without ensuring equivalent or greater emissions reductions (CAA section 193).

In addition to the documents listed above, guidance and policy documents that we use to evaluate enforceability, stringency, and revision/relaxation requirements include the following:

1. Control Techniques Guidelines and Alternative Control Techniques Documents for Reducing Ozone-Causing Emissions. *https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques.*
2. ''Model Volatile Organic Compound Rules for Reasonably Available Control Technology,'' June 1992.
3. Memorandum dated March 17, 2011, from Scott Mathias, Interim Director, Air Quality Policy Division, U.S. EPA to Regional Air Division Directors, Subject: ''Approving SIP Revisions Addressing VOC RACT Requirements for Certain Coatings Categories.''

B. Does the document meet the evaluation criteria?

SDAPCD's 2016 RACT SIP provides the District's demonstration that the applicable SIP for the SDAPCD satisfies CAA section 182 RACT requirements for the 2008 ozone NAAQS. This conclusion is based on the District's analysis of SIP-approved requirements that apply to the following: (1) Source categories for which a CTG has been issued, and (2) major non-CTG stationary sources of VOC or NO_X emissions.

With respect to CTG source categories, SDAPCD analyzed in Attachment A of the 2016 RACT SIP those source categories that had sources within the District subject to the recommendations in the various CTGs, and the District rules regulating these sources. Based on our analysis, the EPA concludes that, with the exception of the deficiencies identified in section II.C below and described in more detail in the TSD, SDAPCD's analysis has demonstrated that the required RACT rules are in place. Where there are no existing sources covered by a particular CTG document, or no major non-CTG stationary sources of VOCs or NO_X, states may, in lieu of adopting RACT requirements for those sources, adopt negative declarations certifying that there are no such sources in the relevant NAA. In Attachment B of the 2016 RACT SIP, the District lists the CTGs for which it is certifying a negative declaration for the 2008 ozone NAAQS. These negative declarations are re-listed in Table 2 below. The District concludes that it has no sources subject to the specified CTGs based on a review of its permit files and emissions inventory, various print and online business listings, and through consultation with District inspectors and permit engineers.

We reviewed SDAPCD's list of negative declarations in the 2016 RACT SIP Attachment B and the CARB facility database for 2016 to verify the District's conclusion that it has no stationary sources subject to the CTG source categories for which it has adopted a negative declaration. We agree with the District's negative declarations in the 2016 RACT SIP Attachment B, and propose to approve them into the SIP.

[3] Id. at 12278.

[4] Id. and 70 FR 71612, 71652 (November 29, 2005).

[5] 57 FR 13498, 13512 (April 16, 1992).

TABLE 2—NEGATIVE DECLARATIONS

CTG document	CTG document title
EPA–450/2–77–008	Control of Volatile Organic Emissions from Existing Stationary Sources—Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (Automobiles, and light-duty truck coatings only).[a]
EPA–450/2–77–025	Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds.
EPA–450/2–77–032	Control of Volatile Organic Emissions from Existing Stationary Sources—Volume III: Surface Coating of Metal Furniture.
EPA–450/2–77–033	Control of Volatile Organic Emissions from Existing Stationary Sources—Volume IV: Surface Coating of Insulation of Magnet Wire.
EPA–450/2–77–034	Control of Volatile Organic Emissions from Existing Stationary Sources—Volume V: Surface Coating of Large Appliances.
EPA–450/2–78–030	Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires.
EPA–450/2–78–032	Control of Volatile Organic Emissions from Existing Stationary Sources—Volume VII: Factory Surface Coating of Flat Wood Paneling.
EPA–450/2–78–036	Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment.
EPA–450/3–82–009	Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners.[b]
EPA–450/3–83–006	Control of Volatile Organic Compound Leaks from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment.
EPA–450/3–83–007	Control of Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants.
EPA–450/3–83–008	Control of Volatile Organic Compound Emissions from Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins.
EPA–450/3–84–015	Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry.
EPA–450/4–91–031	Control of Volatile Organic Compound Emissions from Reactor Processes and Distillation Operations in Synthetic Organic Chemical Manufacturing Industry.
EPA–453/R–97–004; 59 FR 29216 (6/06/94).	Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations; Aerospace MACT[b].
EPA–453/R–06–004	Control Techniques Guidelines for Flat Wood Paneling Coatings.
EPA 453/R–07–004	Control Techniques Guidelines for Large Appliance Coatings.
EPA 453/R–07–005	Control Techniques Guidelines for Metal Furniture Coatings.
EPA 453/R–08–006	Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings.

[a] SDAPCD claims a negative declaration only for the portions of this CTG related to Automobiles and Light-Duty Trucks.
[b] Negative declarations for CTG categories where the District states it has facilities, but emissions are below the CTG's applicability threshold.

The 2016 RACT SIP Attachment D—Major Sources in San Diego Country Subject to District Rules lists major sources of VOC emissions and the rules that the District evaluated as applying to those facilities. The two facilities that exceed the major source threshold for VOCs are the San Diego City of Miramar Landfill, and National Steel & Shipbuilding. The District has documented that the 168.5 tpy emissions from the Miramar Landfill are fugitive. The Miramar Landfill therefore does not constitute a major stationary source under the Act, and the District is not required to demonstrate that this source is implementing RACT-level controls.[6]

National Steel & Shipbuilding is a major source of VOC emissions, and is regulated primarily by Rule 67.18. It is therefore evaluated as a CTG source. Accordingly, we conclude that the District does not have any major non-CTG sources of VOCs in the NAA, and must adopt a negative declaration for major non-CTG sources of VOCs.

The District does not list any major sources of NO_X. However, we have determined that one facility, Solar Turbines, Inc., is a major source of NO_X. As explained in the TSD, we have concluded that this source is currently implementing RACT-level controls. Accordingly, we propose to find that the District has met its RACT obligation for major sources of NO_X.

Our review found that certain CTG categories were not addressed by either a negative declaration or a RACT rule. These deficiencies are described in section II.C below and explained in greater detail in the TSD. These approvability issues preclude full approval of the 2016 RACT SIP. Our TSD has more information on our evaluation of the 2016 RACT SIP.

C. What are the deficiencies?

The following provisions do not satisfy the requirements of section 110 and part D of title I of the Act and prevent full approval of the 2016 RACT SIP.

1. Missing negative declaration (or rule) for the following CTG and Major Source categories.

TABLE 3—MISSING NEGATIVE DECLARATION OR RACT RULE

EPA document No.	CTG title.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 3. Plastic Parts and Products.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 4. Automotive/Transportation and Business Machine Plastic Parts.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 6. Motor Vehicle Materials.
Not applicable	Non-CTG Major Sources of VOC emissions.

[6] 42 U.S.C. 7511a(b)(2), 42 U.S.C. 7602(j).

2. Existing rule does not represent RACT for the 2008 ozone standard.

TABLE 4—CTG SOURCE RULES THAT DO NOT REPRESENT RACT

EPA document No.	CTG title	Remedy
EPA–450/R–75–102	Design Criteria for Stage I Vapor Control Systems—Gasoline Service Stations.	Re-notice Rule 61.3.1.
EPA–450/2–77–026	Tank Truck Gasoline Loading Terminals	Revise Rule 61.2.
EPA–450/2–78–029	Manufacture of Synthesized Pharmaceutical Products	Revise Rule 67.15 or submit negative declaration for this CTG source category.
EPA–453/R–06–001	Industrial Cleaning Solvents	Revise Rule 67.6.1.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 5. Pleasure Craft Surface Coating.	Revise Rule 67.18 or submit negative declaration for this CTG source category.
EPA–453/R–08–004	Fiberglass Boat Manufacturing Materials	Revise Rule 67.12.1 or submit negative declaration for this CTG source category.

Our TSD has detailed information on these deficiencies.

D. EPA Recommendations To Further Improve the RACT SIP

Our TSD includes recommendations for future rule improvements and suggested revisions related to the required RACT SIP submittal for the 2015 ozone standard.

E. Public Comment and Proposed Action

Under CAA section 110(k)(3), we propose to partially approve and partially disapprove CARB's submittal of the SDAPCD 2016 RACT SIP, as reflected in Tables 5 and 6. As discussed, the RACT SIP must document current RACT for sources covered by CTGs and for major non-CTG sources of VOC and NO_X emissions. We have determined that the 2016 RACT SIP documents RACT for many, but not all, CTG sources and major sources. In addition, the RACT SIP does not include a rule or negative declaration for several CTGs, or a negative declaration for major non-CTG sources of VOCs. For these reasons and the reasons discussed above, we are proposing to partially approve and partially disapprove the District's certification that it has met the RACT requirement for the 2008 8-hour ozone NAAQS as demonstrated in its 2016 RACT SIP.

TABLE 5—RACT EVALUATION FOR CTG SOURCES IN SDAPCD FOR THE 2008 OZONE STANDARD MODERATE NONATTAINMENT AREA

EPA document No.	CTG title	Covered by SIP Rule as current RACT	Neg dec submitted	Proposed action
EPA–450/R–75–102	Design Criteria for Stage I Vapor Control Systems—Gasoline Service Stations.			Disapproval.[a]
EPA–450/2–77–008	Surface Coating of Cans	67.4		Approval.
EPA–450/2–77–008	Surface Coating of Coils	67.4		Approval.
EPA–450/2–77–008	Surface Coating of Paper	67.5		Approval.
EPA–450/2–77–008	Surface Coating of Fabrics	67.5		Approval.
EPA–450/2–77–008	Surface Coating of Automobiles and Light-Duty Trucks.		4/12/2017	Approval.
EPA–450/2–77–022	Solvent Metal Cleaning	67.6.2		Approval.
EPA–450/2–77–025	Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds.		4/12/2017	Approval.
EPA–450/2–77–026	Tank Truck Gasoline Loading Terminals			Disapproval.[b]
EPA–450/2–77–032	Surface Coating of Metal Furniture		4/12/2017	Approval.
EPA–450/2–77–033	Surface Coating of Insulation of Magnet Wire		4/12/2017	Approval.
EPA–450/2–77–034	Surface Coating of Large Appliances		4/12/2017	Approval.
EPA–450/2–77–035	Bulk Gasoline Plants	61.2		Approval.
EPA–450/2–77–036	Storage of Petroleum Liquids in Fixed-Roof Tanks	61.1		Approval.
EPA–450/2–77–037	Cutback Asphalt	67.7		Approval.
EPA–450/2–78–015	Surface Coating of Miscellaneous Metal Parts and Products.	67.3		Approval.
EPA–450/2–78–029	Manufacture of Synthesized Pharmaceutical Products			Disapproval.[c]
EPA–450/2–78–030	Manufacture of Pneumatic Rubber Tires		4/12/2017	Approval.
EPA–450/2–78–032	Factory Surface Coating of Flat Wood Paneling		4/12/2017	Approval.
EPA–450/2–78–033	Graphic Arts-Rotogravure and Flexography	67.16		Approval.
EPA–450/2–78–036	Leaks from Petroleum Refinery Equipment		4/12/2017	Approval.
EPA–450/2–78–047	Petroleum Liquid Storage in External Floating Roof Tanks.	61.1		Approval.
EPA–450/2–78–051	Leaks from Gasoline Tank Trucks and Vapor Collection Systems.	61.2		Approval.
EPA–450/3–82–009	Large Petroleum Dry Cleaners		4/12/2017	Approval.
EPA–450/3–83–006	Leaks from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment.		4/12/2017	Approval.

TABLE 5—RACT EVALUATION FOR CTG SOURCES IN SDAPCD FOR THE 2008 OZONE STANDARD MODERATE NONATTAINMENT AREA—Continued

EPA document No.	CTG title	Covered by SIP Rule as current RACT	Neg dec submitted	Proposed action
EPA–450/3–83–007	Equipment Leaks from Natural Gas/Gasoline Processing Plants.		4/12/2017	Approval.
EPA–450/3–83–008	Manufacture of High-Density Polyethylene, Polypropylene, and Polystyrene Resins.		4/12/2017	Approval.
EPA–450/3–84–015	Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry.		4/12/2017	Approval.
EPA–450/4–91–031	Reactor Processes and Distillation Operations in Synthetic Organic Chemical Manufacturing Industry.		4/12/2017	Approval.
EPA–453/R–96–007	Wood Furniture Manufacturing Operations	67.11		Approval.
EPA–453/R–94–032, 61 FR 44050; 8/27/96.	ATC—Surface Coating Operations at Shipbuilding and Ship Repair Facilities. Shipbuilding and Ship Repair Operations (Surface Coating).	67.18		Approval.
EPA–453/R–97–004, 59 FR 29216; 6/06/94.	Aerospace MACT and Aerospace (CTG & MACT)		4/12/2017	Approval.
EPA–453/R–06–001	Industrial Cleaning Solvents			Disapproval.[d]
EPA–453/R–06–002	Offset Lithographic Printing and Letterpress Printing	67.16		Approval.
EPA–453/R–06–003	Flexible Package Printing	67.16		Approval.
EPA–453/R–06–004	Flat Wood Paneling Coatings		4/12/2017	Approval.
EPA–453/R–07–003	Paper, Film, and Foil Coatings	67.5		Approval.
EPA–453/R–07–004	Large Appliance Coatings		4/12/2017	Approval.
EPA–453/R–07–005	Metal Furniture Coatings		4/12/2017	Approval.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 2. Metal Parts and Products.	67.3		Approval.
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 3. Plastic Parts and Products.			Disapproval.[e]
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 4. Automotive/Transportation and Business Machine Plastic Parts.			Disapproval.[f]
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 5. Pleasure Craft Surface Coating.			Disapproval.[g]
EPA–453/R–08–003	Miscellaneous Metal and Plastic Parts Coatings, Table 6. Motor Vehicle Materials.			Disapproval.[h]
EPA–453/R–08–004	Fiberglass Boat Manufacturing Materials			Disapproval.[i]
EPA–453/R–08–005	Miscellaneous Industrial Adhesives	67.21		Approval.
EPA–453/R–08–006	Automobile and Light-Duty Truck Assembly Coatings		4/12/2017	Approval

[a] As explained in greater detail in the TSD, Rule 61.3.1, which regulates sources in this category, was not properly noticed, and is thus not approvable. The District intends to re-notice Rule 61.3.1, which together with 61.3 would establish current RACT for this category.
[b] The applicable rule is Rule 61.2, which does not establish RACT because of several deficiencies described in detail in the TSD.
[c] As described in greater detail in the TSD, Rule 67.15 has deficiencies that prevent it from establishing RACT level controls. The District has determined that there are no sources that meet the CTG applicability threshold and plans to submit a negative declaration for both the 2008 and 2015 ozone standards.
[d] As explained in greater detail in the TSD, the applicable rule for this category is Rule 67.6.1, but this rule does not establish RACT because of an inappropriate NESHAP exemption.
[e] No adopted applicable RACT rule or adopted negative declaration for 2008 ozone standard.
[f] No adopted applicable RACT rule or adopted negative declaration for 2008 ozone standard.
[g] As explained in greater detail in the TSD, the applicable rule for this category is Rule 67.18, but this rule does not establish RACT based on the recommended controls for pleasure craft coatings in the CTG for Miscellaneous Metal and Plastic Parts Coatings (2008).
[h] No adopted applicable RACT rule or adopted negative declaration for 2008 ozone standard.
[i] As explained in greater detail in the TSD, the applicable rule is Rule 67.12.1, but this rule does not establish RACT based on the Fiberglass Boat CTG (2008) recommended controls for fiberglass boat coatings.

TABLE 6—RACT EVALUATION FOR MAJOR NON–CTG VOC/NO_X SOURCES IN SDAPCD FOR THE 2008 OZONE STANDARD MODERATE NONATTAINMENT AREA [7]

Category	Major sources in District?	Covered by SIP rule as current RACT	Neg Dec	Proposed action
Major (100+ tpy) non-CTG VOC sources.	None listed [a]	N/A		Disapproval.
Major (100+ tpy) NOx sources	Yes	N/A		Approval.

[a] The only major VOC source listed by the District is National Steel & Shipbuilding, which is a CTG source. Therefore, there appears to be no non-CTG major sources of VOC in the District and the District should adopt a negative declaration for major non-CTG VOC sources.

The EPA is committed to working with CARB and SDAPCD to resolve the identified RACT deficiencies. However, should we finalize the proposed partial disapproval of the elements identified in Tables 5 and 6 for of the 2016 RACT SIP, the action would trigger a 2-year clock for the federal implementation plan (FIP) requirement under section 110(c). In addition, final disapproval would trigger the offset section in CAA section 179(b)(2) 18 months after the effective date of a final disapproval, and the highway funding sanctions in CAA section 179(b)(1) would apply in the area six months after the offset sanction is imposed. Neither sanction will be imposed under the CAA if the State submits and we approve, prior to the implementation of the sanctions, a SIP revision that corrects the deficiencies that we identify in our final action. We will accept comments from the public on the proposed partial approval and partial disapproval for the 2016 RACT SIP for the next 30 days. If finalized, this action would add to the California SIP as additional materials those portions of the 2016 RACT SIP and negative declarations associated with approvals in Tables 5 and 6.

III. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *http://www2.epa.gov/laws-regulations/laws-and-executive-orders.*

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not expected to be an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA because this action does not impose additional requirements beyond those imposed by state law.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities beyond those imposed by state law.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action does not impose additional requirements beyond those imposed by state law. Accordingly, no additional costs to state, local, or tribal governments, or to the private sector, will result from this action.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175, because the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, and will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not impose additional requirements beyond those imposed by state law.

I. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

Section 12(d) of the NTTAA directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The EPA believes that this action is not subject to the requirements of section 12(d) of the NTTAA because application of those requirements would be inconsistent with the CAA.

K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Population

The EPA lacks the discretionary authority to address environmental justice in this rulemaking.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: July 22, 2020.

John Busterud,

Regional Administrator, Region IX.

[FR Doc. 2020–16279 Filed 8–7–20; 8:45 am]

BILLING CODE 6560–50–P

[7] See section 3.1 of the TSD.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA–HQ–SFUND–1983–0002; FRL–10012–98–Region 8]

National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List: Partial Deletion the Anaconda Co. Smelter Superfund Site

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; notice of intent.

SUMMARY: The Environmental Protection Agency (EPA) Region 8 is issuing a Notice of Intent to Delete the Beryllium Operable Unit 9 (OU9), the Flue Dust OU11 and the Arbiter OU12 of the Anaconda Co. Smelter Superfund Site (Site) located in Anaconda, MT, from the National Priorities List (NPL) and requests public comments on this proposed action. The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and

Hazardous Substances Pollution Contingency Plan (NCP). The EPA and the State of Montana, through the Department of Environmental Quality (MDEQ), have determined that all appropriate response actions at these identified parcels under CERCLA, other than operation and maintenance, monitoring and five-year reviews, have been completed. However, this deletion does not preclude future actions under Superfund.

This partial deletion pertains to three Operable Units; the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12). The other areas of the Site will remain on the NPL and are not being considered for deletion as part of this action.

DATES: Comments must be received by September 9, 2020.

ADDRESSES: Submit your comments, identified by Docket ID no. EPA–HQ–SFUND–1983–0002, by one of the following methods:

- *https://www.regulations.gov.* Follow on-line instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www2.epa.gov/dockets/commenting-epa-dockets.*
- *Email:* Charles Coleman at *coleman.charles@epa.gov.*
- *Phone:* Public comment by phone may be made by calling (406) 457–5038 and following the directions provided for public comment.
- Written comments submitted by mail are temporarily suspended and no hand deliveries will be accepted. We encourage the public to submit comments via *https://www.regulations.gov.*

Instructions: Direct your comments to Docket ID no. EPA–HQ–SFUND–1983–0002. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *https://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *https://www.regulations.gov* or email. The *https://www.regulations.gov* website is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *https://www.regulations.gov,* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the *https://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in the hard copy. Publicly available docket materials are available electronically in *https://www.regulations.gov.*

The EPA is temporarily suspending its Docket Center and Regional Records Centers for public visitors to reduce the risk of transmitting COVID–19. In addition, many site information repositories are closed and information in these repositories, including the deletion docket, has not been updated with hardcopy or electronic media. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID.

FOR FURTHER INFORMATION CONTACT: Charles Coleman, Remedial Project Manager, U.S. Environmental Protection Agency, Region 8, 10 West 15th Street, Suite 3200, Helena, Montana 59626, (406) 457–5038, email: *coleman.charles@epa.gov.*

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction
II. NPL Deletion Criteria
III. Deletion Procedures
IV. Basis for Partial Site Deletion

I. Introduction

EPA Region 8 announces its intent to delete three Operable Units of the Anaconda Co. Smelter Superfund Site (Site); the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12), from the National Priorities List (NPL) and request public comment on this proposed action. The NPL constitutes appendix B of 40 CFR part 300 which is the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. EPA maintains the NPL as those sites that appear to present a significant risk to public health, welfare, or the environment. Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). This partial deletion of the three Operable Units of the Anaconda Co. Smelter Superfund Site (Site); the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12), is proposed in accordance with 40 CFR 300.425(e) and is consistent with the Notice of Policy Change: Partial Deletion of Sites Listed on the National Priorities List. 60 FR 55466 (November 1, 1995). As described in 300.425(e)(3) of the NCP, a portion of a site deleted from the NPL remains eligible for Fund-financed remedial action if future conditions warrant such actions.

EPA will accept comments on the proposal to partially delete this site for thirty (30) days after publication of this document in the **Federal Register**.

Section II of this preamble explains the criteria for deleting sites from the NPL. Section III of this preamble discusses procedures that EPA is using for this action. Section IV of this preamble discusses where to access and review information that demonstrates how the deletion criteria have been met for the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12) of the Anaconda Co. Smelter Superfund Site

II. NPL Deletion Criteria

The NCP establishes the criteria that EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR 300.425(e), EPA will consider, in consultation with the State, whether any of the following criteria have been met:

i. Responsible parties or other persons have implemented all appropriate response actions required;

ii. All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA section 121(c) and the NCP, EPA conducts five-year reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure. EPA conducts such five-year reviews even if a site is deleted from the NPL. EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

III. Deletion Procedures

The following procedures apply to deletion of the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12) of the Site:

(1) The EPA consulted with the State before developing this Notice of Intent for Partial Deletion.

(2) The EPA has provided the state 30 working days for review of this action prior to publication of it today.

(3) In accordance with the criteria discussed above, EPA has determined that no further response is appropriate.

(4) The State of Montana, through the MDEQ, has concurred with the deletion of the the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12) of the Anaconda Co. Smelter Superfund Site from the NPL.

(5) Concurrently, with the publication of this Notice of Intent for Partial Deletion in the **Federal Register**, a notice is being published in the Anaconda Leader and Montana Standard. The newspaper announces the 30-day public comment period concerning the Notice of Intent for Partial Deletion of the Site from the NPL.

(6) The EPA placed copies of documents supporting the proposed partial deletion in the deletion docket, made these items available for public inspection, and copying at the Site information repositories identified above.

If comments are received within the 30-day comment period on this action, EPA will evaluate and respond accordingly to the comments before making a final decision to delete the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12). If necessary, EPA will prepare a Responsiveness Summary to address any significant public comments received. After the public comment period, if EPA determines it is still appropriate to delete the Beryllium (OU9), the Flue Dust (OU11) and the Arbiter (OU12) of the Anaconda Co. Smelter Superfund Site, the Regional Administrator will publish a final Notice of Partial Deletion in the **Federal Register**. Public notices, public submissions and copies of the Responsiveness Summary, if prepared, will be made available to interested parties and included in the site information repositories listed above.

Deletion of a portion of a site from the NPL does not itself create, alter, or revoke any individual's rights or obligations. Deletion of a portion of a site from the NPL does not in any way alter EPA's right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.

IV. Basis for Partial Site Deletion

The EPA placed copies of documents supporting the proposed partial deletion in the deletion docket. The material provides explanation of EPA's rationale for the partial deletion and demonstrates how it meets the deletion criteria. This information is made available for public inspection in the docket identified above.

List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

Authority: 33 U.S.C. 1251 *et seq.*

Dated: July 29, 2020.

Gregory Sopkin,

Regional Administrator, Region 8.

[FR Doc. 2020–16860 Filed 8–7–20; 8:45 am]

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1 and 54

[WC Docket No. 18–89; FCC 20–99; FRS 16964]

Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) takes further steps to protect the nation's communications networks from potential security threats as the Commission integrates provisions of the recently enacted Secure and Trusted Communications Networks Act of 2019 (Secure Networks Act) into its existing supply chain rulemaking proceeding. The Commission seeks comment on proposals to implement further Congressional direction in the Secure Networks Act.

DATES: Comments are due on or before August 31, 2020, and reply comments are due on or before September 14, 2020.

ADDRESSES: Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments and reply comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- *Electronic Filers:* Comments may be filed electronically using the internet by accessing the ECFS: *https://www.fcc.gov/ecfs/.*
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial

overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW, Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID–19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20–304 (March 19, 2020). *https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy.*
- During the time the Commission's building is closed to the general public and until further notice, if more than one docket or rulemaking number appears in the caption of a proceeding, paper filers need not submit two additional copies for each additional docket or rulemaking number; an original and one copy are sufficient.

Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with § 1.49 and all other applicable sections of the Commission's rules. The Commission directs all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to use a table of contents, regardless of the length of their submission. The Commission also strongly encourages parties to track the organization set forth in the Further Notice in order to facilitate its internal review process.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (tty).

FOR FURTHER INFORMATION CONTACT: For further information, please contact Brian Cruikshank, Telecommunications Access Policy Division, Wireline Competition Bureau, at *Brian.Cruikshank@fcc.gov* or (202) 418–7400.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Second Further Notice of Proposed Rulemaking (Further Notice) in WC Docket No. 18–89, adopted July 16, 2020 and released July 17, 2020. Due to the COVID–19 pandemic, the Commission's headquarters will be closed to the general public until further notice. The full text of this document is available at the following internet address: *https://www.fcc.gov/document/implementing-secure-networks-act-0.* The Declaratory Ruling that was adopted concurrently with this Further Notice will be published elsewhere in the **Federal Register**.

I. Introduction

1. America's communications networks have become the indispensable infrastructure of our economy and our everyday lives. The COVID–19 pandemic has demonstrated as never before the importance of these networks for employment and economic opportunity, education, health care, social and civic engagement, and staying connected with family and friends. It is therefore imperative that the Commission safeguards this critical infrastructure from potential security threats.

2. The Commission has taken a number of targeted steps in this regard. For example, in November 2019, the Commission prohibited the use of public funds from the Commission's Universal Service Fund (USF) to purchase or obtain any equipment or services produced or provided by companies posing a national security threat to the integrity of communications networks or the communications supply chain. The Commission also initially designated Huawei Technologies Company (Huawei) and ZTE Corporation (ZTE) as covered companies for purposes of this rule, and it established a process for designating additional covered companies in the future. Additionally, last month, the Commission's Public Safety and Homeland Security Bureau issued final designations of Huawei and ZTE as covered companies, thereby prohibiting the use of USF funds on equipment or services produced or provided by these two suppliers.

3. The Commission takes further steps to protect the nation's communications networks from potential security threats as it integrates provisions of the recently enacted Secure Networks Act into the Commission's existing supply chain rulemaking proceeding. The Commission seeks comment on proposals to implement further Congressional direction in the Secure Networks Act.

II. Second Further Notice of Proposed Rulemaking

4. The concurrently adopted Declaratory Ruling finds that the *2019 Supply Chain Order,* 85 FR 230, January 3, 2020, satisfies the Secure Networks Act's requirement that the Commission prohibit the use of funds for covered equipment and services. The Commission now seeks comment on sections 2, 3, 5, and 7 of the Secure Networks Act, including on how these provisions interact with our ongoing efforts to secure the communications supply chain. As required by section 2, the Commission proposes several processes by which to publish a list of covered communications equipment and services. Consistent with sections 3, 5, and 7 of the Secure Networks Act, the Commission proposes to (1) ban the use of federal subsidies for any equipment or services on the new list of covered communications equipment and services; (2) require that all providers of advanced communications service report whether they use any covered communications equipment and services; and (3) establish regulations to prevent waste, fraud, and abuse in the proposed reimbursement program to remove, replace, and dispose of insecure equipment.

5. After the Commission has adopted rules to further implement the Secure Networks Act, the Commission may prohibit the use of federal funds for potentially insecure communications equipment and services through two separate methods. First, pursuant to the *2019 Supply Chain Order* and section 254 of the Communications Act, no USF funds may be used to purchase or maintain any equipment or services produced or provided by a covered company. Second, pursuant to the Secure Networks Act, providers of advanced communications service will be prohibited from using federal subsidies, including the USF, to purchase or maintain communications equipment and services listed pursuant to section 2. The Commission seeks comment on this view.

6. As an initial matter, the Commission seeks comment on the definition of two terms used throughout the Secure Networks Act. Specifically, the Act's requirements apply to ''communications equipment or service'' and to providers of ''advanced communications service.'' The Act defines ''communications equipment or service'' as ''any equipment or service

that is essential to the provision of advanced communications service.'' The Act defines ''advanced communications service'' in turn as the ''advanced telecommunications capability'' described in section 706 of the Telecommunications Act of 1996, which encompasses ''high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.''

7. The Commission proposes to include within this definition of ''communications equipment or service[s]'' all equipment or services used in fixed and mobile broadband networks, provided they include or use electronic components. The Commission believes that all equipment or services that include or use electronic components can be reasonably considered essential to broadband networks. Moreover, the presence of electronic components provides a bright-line rule that will ease regulatory compliance and administrability. The Commission seeks comment on this interpretation.

8. The Commission also proposes to include within the definition of ''advanced communications service'' any connection at least 200 kbps in either direction. Such a reading is consistent with the Commission's historic interpretation of section 706 of the Telecommunications Act and the requirements that the Commission has imposed on providers of advanced telecommunications capability for purposes of reporting their broadband deployments. The Commission thus believes its consistent with congressional intent to capture the same pool of facilities-based providers who are currently required to report broadband deployment to comply with the requirements of the Secure Networks Act.

9. The Commission recognizes the greater than 200 kbps reporting threshold reflects historical considerations as to speeds needed to provide advanced telecommunications capability. The Commission has since determined, with advancements in technology, that fixed services with download speeds of at least 25 Megabits per second (Mbps) and upload speeds of at least 3 Mbps ''meet the statutory definition of advanced telecommunications capability.'' For mobile services, the Commission evaluates deployment using ''multiple metrics instead of relying on a single benchmark,'' starting first ''where service providers claim a minimum advertised speed of 5/1 Mbps.'' However, importing a narrower definition of advanced communications service could leave insecure equipment in our nation's interconnected broadband networks even though it has been determined to pose a threat to national security. The Commission seeks comment on this interpretation and any alternatives.

10. Section 2(a) of the Secure Networks Act directs the Commission to publish, no later than one year after enactment, a list of covered communications equipment and services (Covered List). The remainder of section 2 lays out how the Commission is to construct this list. *First,* the Commission ''shall place on the list any communications equipment or service that poses an unacceptable risk to the national security of the United States or the security and safety of United States persons based solely on'' a ''determination'' by other federal agencies or Congress, as outlined in section 2(c). *Second,* the Commission ''shall place'' on the Covered List ''any communications equipment or service'' ''if, based exclusively on the determinations'' under section 2(c), ''such equipment or service poses an unacceptable risk to the national security of the United States and the security and safety of United States persons'' and is ''capable'' of ''(A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles; (B) causing the network of a provider of advanced communications service to be disrupted remotely; or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons.'' *Third,* section 2(d) requires that the Commission ''shall periodically update the list published under subsection (a) to address changes in the determinations'' under section 2(c). The Commission seeks comment on each part in turn.

11. Section 2(c) of the Secure Networks Act states that ''in taking action under subsection (b)(1), the Commission shall place'' on the Covered List ''any communications equipment or service that poses an unacceptable risk to the national security of the United States or the security and safety of United States persons based solely on one or more of the following determinations,'' and then lists four separate sources for such determinations. The Commission believes that the Secure Networks Act's use of the term ''shall'' provides the Commission no discretion to accept determinations from other sources not listed in the Secure Networks Act because the Commission must rely ''solely'' on one or more of the determinations listed in section 2(c) for the purposes of taking the steps required under section 2(b)(1) to compile the Covered List. The Commission seeks comment on this interpretation.

12. The external determinations as to whether communications equipment or services pose ''an unacceptable risk to the national security of the United States and the security and safety of United States persons'' come from the following agencies or legislation, pursuant to section 2(c):

(1) ''A specific determination made by any executive branch interagency body with appropriate national security expertise, including the Federal Acquisition Security Council'';

(2) ''A specific determination made by the Department of Commerce pursuant to Executive Order No. 13873 . . . relating to securing the information and communications technology and services supply chain'';

(3) ''The communications equipment or service being covered telecommunications equipment or services, as defined in section 889(f)(3)'' of the 2019 NDAA; or

(4) ''A specific determination made by an appropriate national security agency.''

13. The Secure Networks Act defines ''executive branch interagency body'' as ''an interagency body established in the Executive Branch.'' One of these bodies is the Federal Acquisition Security Council, established by 41 U.S.C. 1322(a). The Federal Acquisition Security Council is tasked with developing criteria and processes for assessing threats and vulnerabilities to the supply chain posed by the acquisition of information technology. The Commission believes other executive agency bodies that could make determinations relevant to section 2(c) include the National Security Council, Homeland Security Council, Interagency Policy Committees, and other committees created for or chartered with a national security purpose. The Commission seeks comment on this view and asks if there are additional executive branch interagency bodies with appropriate national security expertise that can make the external determinations under section 2(c)(1). What role do the Committee on Foreign Investment in the United States (CFIUS) and Team Telecom have in this process? The Commission also seeks comment on the process and procedures it should use to incorporate executive branch interagency body determinations into the Covered List.

14. Section 2(c) also requires the Commission to rely on determinations made by the Department of Commerce. Executive Order No. 13873 grants the Secretary of Commerce the authority to prohibit any transaction of any information and communications technology or service where the Secretary, in consultation with other relevant agency heads, determines that the transaction: (i) Involves property in which a foreign country or national has an interest; (ii) includes information and communications technology or services designed, developed, manufactured, or supplied by persons owned by, controlled by, or subject to the jurisdiction or direction of a foreign adversary; and (iii) poses certain undue risks to the critical infrastructure or the digital economy in the United States or certain unacceptable risks to U.S. national security or U.S. persons. In November 2019, the Department of Commerce commenced a rulemaking to implement Executive Order No. 13873. The Commission seeks comment on the process and procedures it should use to incorporate Department of Commerce external determinations into the Covered List.

15. The Commission is also required to incorporate into the Covered List equipment or services identified in section 889(f)(3) of the 2019 NDAA. The Commission seeks comment on section 889(f)(3) generally and each of its subparts. Section 889(f)(3) of the 2019 NDAA defines ''covered telecommunications equipment or services'' to include ''(A) telecommunications equipment produced by Huawei or ZTE; (B) for the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation (Hytera), Hangzhou Hikvision Digital Technology Company (Hikvision), or Dahua Technology Company (Dahua); [and] (C) telecommunications or video surveillance services provided by such entities or using such equipment.'' Additionally, section 889(f)(3)(D) provides that covered telecommunications equipment or services includes ''[t]elecommunications or video surveillance equipment or services produced or provided by an entity that the Department of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of [the People's Republic of China].''

16. The Commission seeks comment on how it must use section 889(f)(3) of the 2019 NDAA to add communications equipment and services to the Covered List. The plain language of section 2(c) provides that because telecommunications equipment from Huawei and ZTE are covered in section 889(f)(3)(A) of the 2019 NDAA, such equipment poses an unacceptable threat to U.S. national security or the safety and security of U.S. persons. The Commission reads section 2(c) as providing that video surveillance and telecommunications equipment from Hytera, Hikvision, and Dahua, to the extent it is used for public safety or security, poses an unacceptable threat to U.S. national security or the safety and security of U.S. persons. And the Commission reads section 2(c) as saying that ''telecommunications or video surveillance services provided by'' Huawei, ZTE, Hytera, Hikvision, or Dahua—those entities listed earlier in the paragraph—as well as any ''telecommunications or video surveillance services'' that use the equipment specified under subparagraphs (A) and (B) all pose an unacceptable threat to U.S. national security or the safety and security of U.S. persons. The Commission seeks comment on each of these interpretations. Does video surveillance equipment produced by Hytera, Hikvision, or Dahua or video surveillance service offered by Huawei, ZTE, Hytera, Hikvision, or Dahua qualify as ''communications equipment or service'' for the purposes of the Secure Networks Act? How should the Commission interpret section 889(f)(3)(D) and any subsequent designations made by the Department of Defense? What other considerations are relevant to its interpretation of section 889(f)(3)?

17. The final potential source of an external determination in section 2(c) of the Secure Networks Act is an appropriate national security agency. Section 9(2) of the Secure Networks Act defines ''appropriate national security agency'' as the Department of Homeland Security, the Department of Defense, the Office of the Director of National Intelligence, the National Security Agency, and the Federal Bureau of Investigation. Some of these agencies, such as the Department of Homeland Security, include sub-agencies that may be involved in national security determinations, such as the Cybersecurity and Infrastructure Security Agency. The Commission interprets the term ''appropriate national security agency'' to include any determination by a sub-agency of the Department of Homeland Security, the Department of Defense, the Office of the Director of National Intelligence, the National Security Agency, and the Federal Bureau of Investigation, and seek comment on this interpretation. The Commission also seeks comment on the process and procedures it should use to incorporate their determinations into the Covered List.

18. The Commission seeks comment on what constitutes a specific determination that triggers its obligations under section 2(b)(1). Do the entities listed in section 2(c) have different processes to identify the equipment and services that the Commission should publish as covered equipment? For example, the Federal Acquisition Security Council makes a confidential recommendation to the Secretary of Homeland Security, the Secretary of Defense, and the Director of National Intelligence, who then review the recommendation and decide whether or not to issue exclusion or removal orders. Should the Commission interpret the term ''specific determination'' broadly to ensure that any guidance or order from the entities listed in section 2(c) can be incorporated into our list? How specific must these determinations be? Must external determinations list specific information, such as model numbers of equipment, or detailed descriptions of prohibited services that the external source determines poses an unacceptable national security risk, or will the external source identify classes or categories of equipment at a less granular level? If an external source declines to specify equipment or services, or classes or categories thereof but instead simply provides the name of an entity, would that qualify as a ''determination'' under section 2(c)? Must a determination use the precise words of the statute (that certain ''communications equipment or service . . . poses an unacceptable risk to the national security of the United States or the security and safety of United States persons'') or should the Commission consider determinations that convey the same concept even if using different wording? Given the Commission's limited control over the format of a determination from an external source, what should the Commission do if it is unclear whether a particular decision by a section 2(c) source qualifies as a determination?

19. Relatedly, the Commission seeks comment generally on the mechanics of

using these determinations to publish the Covered List. The Commission expects that any determinations covered under sections 2(c) will be publicly released by the original decisionmaker. If such a determination is public, the Commission does not believe it must issue any notice regarding their receipt of this determination. The Commission seeks comment on this understanding. Section 2(a) provides that the first Covered List must be published on the Commission's website no later than March 12, 2021. In order to meet this deadline, by what date does the Commission need to receive the external determinations? Should the Commission affirmatively solicit these determinations from other agencies and, if so, how? Are there any other procedures the Commission should consider to comply with section 2(c) of the Secure Networks Act?

20. Section 2(b) of the Secure Networks Act states that the Commission ''shall place'' on the Covered List ''any communications equipment or service'' that (1) ''is produced or provided by any entity'' ''if, based exclusively on the determinations'' under section 2(c), ''such equipment or service poses an unacceptable risk to the national security of the United States and the security and safety of United States persons'' and (2) is ''capable'' of ''(A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles; (B) causing the network of a provider of advanced communications service to be disrupted remotely; or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons.''

21. The Commission starts with an observation: Specifically, if certain equipment or services have been found under section 2(c) to ''pose[] an unacceptable risk to the national security of the United States and the security and safety of United States persons'' (and thus fulfills the section 2(b)(1) criterion), isn't such equipment or service necessarily ''capable'' of ''posing an unacceptable risk to the national security of the United States or the security and safety of United States persons'' (and thus fulfilling the section 2(b)(2) criterion)?

22. The Commission resolves this potential for surplusage by recognizing that external determinations may be done at different levels of generality. For example, a section 2(c) source may determine a particular model of equipment (or a particular service) ''poses an unacceptable risk'' at a very granular level. In making such a determination, the Commission would expect the section 2(c) source to consider whether the particular model of equipment (or particular service) is ''capable'' of ''(A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles; (B) causing the network of a provider of advanced communications service to be disrupted remotely; or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons'' precisely because those are the types of consideration necessary to determine whether that particular equipment or service actually ''poses an unacceptable risk'' under the law. And so, in such a case, the Commission believes that the specific equipment or service must be placed on the Covered List because another agency has already concluded that the particular equipment or service poses an unacceptable national security risk (and thus it must be ''capable'' of posing such a risk under section 2(b)(2)(C) regardless of whether it also meets the section 2(b)(2)(A) or (B) criteria). Thus, the Commission's placement of the equipment or service on the Covered List in such a case is a non-discretionary, ministerial act. The Commission seeks comment on this view.

23. In contrast, a section 2(c) source may determine that a broader class of equipment or services ''poses an unacceptable risk''—as section 889(f)(3)(A) of the 2019 NDAA does when it lists all ''telecommunications equipment produced by Huawei or ZTE (or any subsidiary or affiliate of such entities).'' When an external source identifies classes or categories of equipment or services as part of its external determination, the Commission believes that the best reading of the Secure Networks Act is to apply the external determination to particular models of equipment or services in light of the section 2(b)(2) criteria. So in applying the general determination that telecommunications equipment from ZTE or Huawei poses an unacceptable risk to a particular piece of equipment, the Commission would look to whether that equipment is ''capable'' of ''(A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles; (B) causing the network of a provider of advanced communications service to be disrupted remotely; or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons.'' As such, the Covered List would include ''Telecommunications equipment produced by Huawei or ZTE that is capable of (A) routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles, (B) causing the networks of a provider or advanced communications service to be disrupted remotely, or (C) otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons.'' The Commission seeks comment on this proposal. In turn, the Commission seeks comment on how it should define ''capable'' for purposes of section 2(b)(2) of the Secure Networks Act. The Commission believes ''capable'' should be read broadly, and equipment or services may be ''capable'' of fulfilling section 2(b)(2)(A) or (B) even if they are not ordinarily used to perform the functions in 2(b)(2)(A) or (B), so long as they can possibly perform those functions. The Commission seeks comment on this view. How will interested parties determine whether specific equipment or services are capable of posing an unacceptable national security risk, pursuant to section 2(b)(2)(C)?

24. The Commission seeks comment on alternatives to its lead proposal. For example, once the Commission receives an external determination that communications equipment or services pose an unacceptable security risk, should the Commission conduct an independent analysis of the capabilities of each specific piece of communications equipment or services before including it on the Covered List? If so, could the Commission permissibly find that equipment is not ''capable'' of posing an unacceptable risk even if it must ''exclusively'' rely on a section 2(c) source to determine that it does actually pose such a risk? Must the Commission identify the specific capability from section 2(b)(2)(A)–(C) that warrants inclusion on the Covered List for every piece of communications equipment and service? Is such an analysis of each and every piece of equipment included in a section 2(c) determination even possible in light of the one-year deadline for creating such a list? Even if such an analysis could be done, would a particularized Covered List be easily evaded given how frequently communications equipment is updated? Are there best practices for producing a detailed list that is

informative and easy to consult and understand? What would be the administrative burden of an equipment-by-equipment determination under section 2(b)(2), and do any benefits of such an approach outweigh the burdens of the slower process of identifying covered equipment and services? The Commission seeks comment on other potential methods of interpreting and complying with section 2 of the Secure Networks Act and their costs and benefits.

25. Finally, regardless of how the Commission interprets the interplay of section 2(b)'s various provisions, it seeks comment on the process for allowing interested parties to clarify whether a specific piece of communications equipment or a specific service is on the Covered List. What is the best method for allowing the interested party to seek clarity? For example, the Commission's rules provide for declaratory rulings to remove uncertainty. How can the Commission provide interested parties adequate opportunities to demonstrate that specific equipment or services are or are not included on the Covered List while meeting its obligations under the Secure Networks Act?

26. Section 2(d) of the Secure Networks Act sets out certain requirements for the Commission to maintain the Covered List. Section 2(d)(1) requires the Commission to update the Covered List ''periodically'' to address changes in the determinations made by other governmental agencies. The Commission must monitor the Covered List to add additional communications equipment or services or remove equipment or services if the basis for its inclusion no longer exists. For each 12-month period during which the Covered List is not updated, the Commission must notify the public that no updates were necessary to protect national security or to address changes in existing determinations. The Commission reads the language of section 2(d) to be mandatory—precluding it from altering the list beyond the specific updates (all tied to changes in section 2(c) determinations) required by its terms. The Commission seeks comment on this interpretation. The Commission also seeks comment on the process to update and publish the Covered List and solicit ideas and best practices for ways to maintain the Covered List and keep it current and readily available.

27. Consistent with the Secure Networks Act, which establishes no notice period before the publication of the Covered List, the Commission proposes to publish the Covered List without first seeking public comment on the contents. The Commission notes that section 2(d) uses mandatory language and thus does not appear to give the Commission discretion not to update the Covered List based on changes in determinations, and hence it would be unclear what purpose a notice period would serve. The Commission seeks comment on this proposal.

28. In the concurrently adopted Declaratory Ruling, the Commission found that the prohibition adopted in § 54.9 of the Commission's rules substantially implements the prohibition contained in section 3 of the Secure Networks Act. That is, the Commission's current § 54.9 prohibition on spending USF funds, adopted pursuant to the Communications Act, broadly applies to all equipment and services produced or provided by entities designated as ''posing a national security threat.'' Section 3 of the Secure Networks Act, in comparison, applies to Federal programs subsidizing capital expenditures necessary for the provision of advanced communications service and more narrowly to covered communications equipment and services identified in the Covered List.

29. The Commission proposes and seeks comment on the designation of covered communications equipment and services on the Covered List. If the Commission's proposal here is adopted, it would have two different designation processes, one for the designation of an entity, as currently provided by the Commission's rules and another, more targeted process, for the designation of specific communications equipment and services per section 2 of the Secure Networks Act. To accommodate this outcome, the Commission proposes a new rule, independent of the § 54.9 prohibition, that would prohibit, going forward, the use of federal subsidies made available through a program administered by the Commission to purchase, rent, lease, otherwise obtain, or maintain any covered communications equipment and services identified and published on the Covered List. The Commission proposes that the new prohibition on the use of USF funds pursuant to the Secure Networks Act would be effective 60 days after communications equipment or services are placed on the Covered List. The Commission seeks comment on this proposal, which tracks the text of section 3 of the Secure Networks Act and would more closely align the Commission's rules with the Secure Networks Act than currently provided for under § 54.9.

30. As discussed in the concurrently adopted Declaratory Ruling, the Commission reads the prohibition in section 3 as intending to apply to all universal service programs but not other Federal subsidy programs to the extent those programs may at times tangentially or indirectly involve expenditures related to the provision of advanced communications services. The Commission seeks comment on this proposal. The Commission believes that applying this prohibition to USF programs furthers its responsibility to ensure that public funds are not spent on equipment or services from companies that present a risk to the supply chain, whether that responsibility arises from its own statutory imperatives or from the Secure Networks Act. The prohibition would also apply to any other programs administered by the Commission that primarily support the provision of advanced communications services, as well as any future USF programs implemented by the Commission. The Commission seeks comment on this approach.

31. The Commission seeks comment on how the proposed rule would affect multiyear contracts or contracts with voluntary extensions between fund recipients and companies producing or providing communications equipment or services posing a supply chain security risk, if any such contracts exist. The Commission specifically seeks comment on whether the Secure Networks Act, which states that the prohibition shall apply 60 days after the date on which it places a service or piece of equipment on the Covered List, permits the Commission to grandfather any such arrangements. If the Commission does grandfather contracts, should it only grandfather unexpired annual or multiyear contracts, or also grandfather one-year contracts with voluntary extensions? The Commission notes that in the *2019 Supply Chain Order,* it declined to grandfather existing contracts, finding that ''[e]xempting existing multiyear contracts would negate the purpose behind its rule and allow federal funds to be used to perpetuate existing security risks to communications networks and the communications supply chain.'' To what extent would the Commission's adoption of the proposed rule trigger any change-of-law provisions?

32. Are there other practical issues raised by the Commission's proposals that it should address in implementing this proposed rule? Would section 3, any other section of the Secure Networks Act, or the Secure Networks

Act as a whole provide us independent authority to require ETCs or other providers to remove and replace equipment on the Covered List?

33. Section 5 of the Secure Networks Act requires each ''provider of advanced communications service'' to report annually, ''in a form to be determined by the Commission,'' if it has ''purchased, rented, leased, or otherwise obtained any covered communications equipment or service.'' All covered communications equipment or services on the initial Covered List published under section 2(a) of the Secure Networks Act that was purchased, leased, or otherwise obtained by a provider on or after August 14, 2018 must be reported, and any additional covered equipment or services must be reported within 60 days after the list is updated.

34. The Secure Networks Act also requires providers to include ''a detailed justification'' for procuring such communications equipment or services, information about whether the equipment or service has subsequently been removed and replaced, and information about any plans for the continued purchase, rent, lease, installation, or use of such covered communications equipment or services. If a provider does not have any covered communications equipment or services in its network, then subsequent annual reports beyond an initial certification are not required unless subsequent purchases or other actions make the initial certification inaccurate.

35. While the Commission recently conducted an information collection to better understand the extent of Huawei and ZTE equipment in our communications networks, it recognizes the annual reporting requirement contained in section 5 goes beyond the scope and frequency of that collection. The Commission limited the earlier collection requirement to ETCs, their subsidiaries, and their affiliates, but allowed service providers with pending ETC designations and others to participate on a voluntary basis. The type of information reported in the earlier collection did not track the requirements of section 5. For example, the earlier collection did not require any justification as to purchasing decisions. Accordingly, the collection would not satisfy section 5 of the Secure Networks Act absent significant modification.

36. The Commission therefore proposes and seeks comment on a new information collection requirement to implement section 5. Specifically, the Commission proposes to require that all ''providers of advanced communications services'' must comply with the new reporting requirement contained in section 5 of the Secure Networks Act. The information contained in the report would generally encompass the requirements in section 5. Consistent with section 5, the Commission proposes to require that filers report the type, location, date obtained, and any removal and replacement plans of covered equipment and services in their network. Filers will also have to provide a ''detailed justification'' explaining why they obtained covered equipment or services. The Commission seeks comment on what the detailed justification should include and on these other proposals. Is there additional information the Commission should require, to be consistent with the Secure Networks Act's purpose and obligations, that would prove helpful in monitoring and assessing the presence and replacement of covered equipment and services? For example, would it be helpful to know the amount paid for the covered equipment and services or the supplier from whom the equipment was purchased? The Commission also seeks comment on how it could use the information it has already collected to reduce potentially duplicative reporting requirements for carriers.

37. To what extent should the Commission make reported information publicly available or treat it as presumptively confidential and not subject to routine public inspection? Consistent with the *2019 Supply Chain Order,* the Commission does not propose to treat as confidential whether a particular provider has covered equipment or services in its network. Moreover, because information on the magnitude of covered equipment and services among individual service providers would be of public interest, the Commission proposes to make such information publicly available. Provider-specific information on the location of covered equipment and services could raise security and confidentiality concerns. Accordingly, the Commission proposes to treat that specific information as presumptively confidential. The Commission seeks comment on these proposals and any alternative proposals.

38. Section 7(a) requires the Commission to treat violations of the Secure Networks Act and violations of the regulations pursuant to that statute as violations of the Communications Act. Accordingly, the Commission would have authority to subject those found in violation of the Secure Networks Act to forfeitures as authorized under section 503(b) of the Communications Act and § 1.80 of the Commission's rules. Additional regulations to implement this particular provision appear unnecessary as there are already regulations governing Commission processes regarding forfeiture proceedings. The Commission seeks comment on the assumptions that it needs not propose any new procedural enforcement requirements associated with section 7(a) of the Secure Networks Act.

39. Separately, section 7(b) requires the repayment of funds disbursed per the reimbursement program prescribed in section 4 of the Secure Networks Act by recipients if they are found to have violated section 4, the Commission's regulations promulgated pursuant to section 4, or the ''commitments made by the recipient in the application for the reimbursement.'' Section 4 establishes the reimbursement program providers may use to help pay for the removal, replacement, and disposal of covered communications equipment and services. The statute further calls for the referral of such violations to ''all appropriate law enforcement agencies or officials for further action under applicable criminal and civil laws.'' The statute bars violators from further participation in the section 4 reimbursement program, and violators may be barred from participating in other Commission programs, ''including the Federal universal service support programs.'' Before requiring repayment and triggering the additional penalty actions, the Commission must first give alleged violators notice and a 180-day opportunity to cure the violation. The Commission proposes to adopt regulations tracking the language contained in section 7 and seek comment on this proposal.

40. The Commission is also required by section 7(c) to ''immediately take action to recover all reimbursement funds awarded'' when a recipient is required to repay reimbursement under section 7(b)(1)(A) due to a violation. The Commission proposes to initiate such action by sending a request for repayment to the recipient immediately following the expiration of the opportunity to cure where the recipient does not respond to the notice of violation required by section 7(b)(2). If the alleged violator does respond to the notice but is ultimately determined by the Commission to have not cured the violation, the Commission will then request repayment following that determination. What additional clarifications and/or rules are needed to implement these enforcement provisions?

41. The proposals in the Further Notice generally reflect mandates from

the Secure Networks Act, and the Commission has no discretion to ignore such congressional direction. To the extent that the Commission seeks comment on multiple possible options to implement any given mandate, it urges commenters, where possible, to include an assessment of relative costs and benefits for competing options. The proposals in the Further Notice are intended to, consistent with the Secure Networks Act, identify and provide guidance on which communications equipment and services the Secure Networks Act prohibit the use of Federal subsidies to purchase or maintain. The Commission further seeks detailed comments on the costs of the proposals in the Further Notice. What are the upfront and recurring costs associated with each? How will these costs vary according to the size of the provider of advanced communications service? The Commission already completed an information collection to determine the costs to ETCs to remove and replace Huawei and ZTE equipment and services. How can the Commission best incorporate this information into its cost-benefit analysis? What are the expected costs and benefits associated with each of these proposals to providers, end users, and any other relevant parties? The Commission seeks comment, generally, on the impact the proposed rules will have on small businesses and steps it can take to mitigate the impact, if any, of these rules on those small businesses.

III. Procedural Matters

A. Paperwork Reduction Act Analysis

42. This document contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, will invite the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, *see* 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees.

43. *Ex Parte Presentations.* This proceeding is a ''permit-but-disclose'' proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.,* .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

44. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Further Notice. Written comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided on the first page of the item. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA). In addition, the Further Notice and IRFA (or summaries thereof) will be published in the **Federal Register**.

45. Consistent with the Commission's obligation to be responsible stewards of the public funds used in the USF programs and increasing concern about ensuring communications supply chain integrity, the Further Notice proposes and seeks comment on rules to implement sections 2, 3, 5, and 7 of the Secure Networks Act and their applicability to the Commission's ongoing efforts to secure the communications supply chain.

46. Specifically, the Commission proposes to establish the rules for the creation and maintenance of the Covered List, which will list communications equipment and services that providers of advanced communications services will be prohibited from using any Federal subsidy to purchase or maintain. The Commission also proposes to require advanced communications service providers to report their use of communications equipment and services published on the Covered List, and to adopt enforcement mechanisms the Commission may implement to as part of the reimbursement program established by section 4 of the Secure Networks Act.

47. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small governmental jurisdiction.'' In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. A small business concern is one that: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small SBA.

48. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* The Commission's actions, over time, may affect small entities that are not easily categorized at present. The Commission therefore describes in this document, at the outset, three broad groups of small entities that could be directly affected herein. First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees. These types of small businesses represent 99.9% of all businesses in the United States which translates to 28.8 million businesses.

49. Next, the type of small entity described as a ''small organization'' is generally ''any not-for-profit enterprise which is independently owned and

operated and is not dominant in its field.'' Nationwide, as of Aug 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).

50. Finally, the small entity described as a ''small governmental jurisdiction'' is defined generally as ''governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.'' U.S. Census Bureau data from the 2017 Census of Governments indicate that there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States. Of this number there were 36,931 general purpose governments (county, municipal and town or township) with populations of less than 50,000 and 12,040 special purpose governments—independent school districts with enrollment populations of less than 50,000. Accordingly, based on the 2017 U.S. Census of Governments data, the Commission estimates that at least 48,971 entities fall into the category of ''small governmental jurisdictions.''

51. Small entities potentially affected by the proposals herein include eligible schools and libraries, eligible rural non-profit and public health care providers, and the eligible service providers offering them services, including telecommunications service providers, internet Service Providers (ISPs), and vendors of the services and equipment used for telecommunications and broadband networks.

52. The Further Notice proposes rules that establish a Covered List of communications equipment and services that advanced communications providers are prohibited from using federal subsidies administered by the Commission to purchase or maintain. The Further Notice also proposes rules to create a reporting requirement for advanced communications providers to identify whether they use or maintain any equipment or services on the Covered List in their networks. The Commission seeks comment on this proposal, and its likely costs and benefits, as well as on alternative approaches and any other steps it should consider taking.

53. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): ''(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.''

54. In compliance with the Secure Networks Act, the Further Notice specifically proposes to establish the Covered List, reporting requirements for advanced communications providers, and enforcement mechanisms for violations of the prohibition on the use of federal subsidies to purchase or maintain communications equipment and services on the Covered List.

55. The Commission expects to take into account the economic impact on small entities, as identified in comments filed in response to the Further Notice and this IRFA, in reaching our final conclusions and promulgating rules in this proceeding. The Further Notice generally seeks comment on how to adopt enacted legislation that mandates action by the Commission and seeks specific comment on how to mitigate the impact on small entities.

IV. Ordering Clauses

56. Accordingly, *it is ordered* that, pursuant to the authority contained in sections 4(i), 201(b), 214, 254, 303(r), 403, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 201(b), 214, 254, 303(r), 403 and 503, sections 2, 3, 5, and 7 of the Secure Networks Act, 47 U.S.C. 1601, 1602, 1604, and 1606, and §§ 1.1 and 1.412 of the Commission's rules, 47 CFR 1.1 and 1.412, the Further Notice *is adopted*.

57. *It is further ordered* that the Further Notice will be *effective* upon publication in the **Federal Register**, with comment dates indicated therein.

List of Subjects

47 CFR Part 1

Administrative practice and procedure, Civil rights, Claims, Communications, Communications common carriers, Communications equipment, Cuba, Drug abuse, Environmental impact statements, Equal access to justice, Equal employment opportunity, Federal buildings and facilities, Government employees, Historic preservation, Income taxes, Indemnity payments, Individuals with disabilities, internet, Investigations, Lawyers, Metric system, Penalties, Radio, Reporting and recordkeeping requirements, Security measures, Satellites, Telecommunications, Telephone, Television, Wages.

47 CFR Part 54

Communications common carriers, Health facilities, Infants and children, internet, Libraries, Puerto Rico, Reporting and recordkeeping requirements, Schools, Telecommunications, Telephone, Virgin Islands.

Federal Communications Commission.

Cecilia Sigmund,

Federal Register Liaison Officer.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 1 as follows:

PART 1—PRACTICE AND PROCEDURE

■ 1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. chs. 2, 5, 9, 13; 28 U.S.C. 2461 note, unless otherwise noted.

■ 2. Add § 1.7004 to subpart V to read as follows:

§ 1.7004 Reports on covered communications equipment or services.

(a) *Scope.* Each facilities-based provider of broadband connections to end users, as defined herein, shall submit an annual report to the Commission indicating whether the provider has purchased, rented, leased or otherwise obtained any covered communications equipment or service identified in the list published pursuant to § 1.40002(b) of this chapter.

(b) *Definitions*—(1) *Broadband connection.* A wired line, wireless channel, or satellite service that terminates at an end user location or mobile device and enables the end user to receive information from and/or send information to the internet at information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction.

(2) *Facilities-based provider.* An entity is a facilities-based provider of a service if it supplies such service using facilities that satisfy any of the following criteria:

(i) Physical facilities that the entity owns and that terminate at the end-user premises;

(ii) Facilities that the entity has obtained the right to use from other entities, such as dark fiber or satellite transponder capacity, as part of its own network, or has obtained;

(iii) Unbundled network element (UNE) loops, special access lines, or other leased facilities that the entity uses to complete terminations to the end-user premises;

(iv) Wireless spectrum for which the entity holds a license or that the entity manages or has obtained the right to use via a spectrum leasing arrangement or comparable arrangement pursuant to subpart X of this part (§§ 1.9001–1.9080); or

(v) Unlicensed spectrum.

(3) *End user.* A residential, business, institutional, or government entity that subscribes to a service, uses that service for its own purposes, and does not resell that service to other entities.

(c) *Contents of report.* Each facilities-based provider of broadband service must:

(1) Identify any covered communications equipment or service that is purchased, rented, leased or otherwise obtained on or after:

(i) August 14, 2018, in the case of any covered communications equipment or service on the initial list published pursuant to § 1.40002(b) of this chapter; or

(ii) Within 60 days after the date on which the Commission places such equipment or service on the list required by § 1.40002(b) of this chapter;

(2) Provide details on the covered communications equipment or services in its network, including the type, location, date purchased, rented, leased or otherwise obtained, and any removal and replacement plans;

(3) Provide a detailed justification as to why the facilities-based provider of broadband service purchased, rented, leased or otherwise obtained the covered communications equipment or service;

(4) Provide information about whether any such covered communications equipment or service has subsequently been removed and replaced pursuant to Commission's reimbursement program contained in 47 CFR part 54, subpart P;

(5) Provide information about whether such provider plans to continue to purchase, rent, lease, or otherwise obtain, or install or use, such covered communications equipment or service and, if so, why; and

(6) Include a certification as to the accuracy of the information reported by an appropriate official of the filer, along with the title of the certifying official.

(d) *Reporting deadline.* Entities subject to this reporting requirement shall file initial reports within six months after the Office of Economics and Analytics issues a public notice announcing the availability of the new supply chain reporting platform. Thereafter, filers must submit reports once per year on or before June 30th, reporting information as of December 31st of the previous year.

(e) *Reporting exception.* If a facilities-based provider of broadband service certifies to the Commission that such provider does not have any covered communications equipment or service in the network of such provider, such provider is not required to submit a report under this section after making such certification, unless such provider later purchases, rents, leases or otherwise obtains any covered communications equipment or service.

(f) *Authority to update.* The Office of Economics and Analytics, in consultation with the Wireline Competition Bureau, the Wireless Telecommunications Bureau, the Public Safety and Homeland Security Bureau, and the International Bureau, may, consistent with these rules, implement any technical improvements, changes to the format and type of data submitted, or other clarifications to the report and its instructions.

■ 3. Add subpart CC to read as follows:

Subpart CC—Secure and Trusted Communications Networks

Sec.
1.40000 Purpose.
1.40001 Definitions.
1.40002 Covered List.
1.40003 Updates to the Covered List.

Subpart CC—Secure and Trusted Communications Networks

Authority: 47 U.S.C. chs. 5, 15.

§ 1.40000 Purpose.

The purpose of this subpart is to set out the terms by which the Commission will publish and maintain the Covered List in accordance with the Secure and Trusted Communications Networks Act of 2019, Public Law 116–124, 133 Stat. 158.

§ 1.40001 Definitions.

For purposes of this subpart:

(a) *Advanced communications service.* The term ''advanced communications service'' means high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology with connection speeds of at least 200 kbps in either direction.

(b) *Appropriate national security agency.* The term ''appropriate national security agency'' means:

(1) The Department of Homeland Security;

(2) The Department of Defense;

(3) The Office of the Director of National Intelligence;

(4) The National Security Agency; and

(5) The Federal Bureau of Investigation.

(c) *Communications equipment or service.* The term ''communications equipment or service'' means any equipment or service that includes or uses electronic components that is essential to the provision of fixed or mobile advanced communications service with connection speeds of at least 200 kbps in either direction.

(d) *Covered communications equipment or service.* The term ''covered communications equipment or service'' means any communications equipment or service that is on the Covered List found in § 1.40002.

(e) *External determinations.* The term ''external determination'' means any determination from sources identified in § 1.40002(b)(1)(i) through (iv) that certain communications equipment or service poses an unacceptable risk to the national security of the United States or the security and safety of United States persons.

(f) *Covered List.* The Covered List is a regularly updated list of covered communications equipment and services.

§ 1.40002 Covered List.

(a) *Publication of the Covered List.* The Wireline Competition Bureau and the Public Safety and Homeland Security Bureaus shall publish the Covered List on the Commission's website. The Bureaus shall maintain the Covered List in accordance with § 1.40003.

(b) *Inclusion on the Covered List.* The Commission shall place on the Covered List any and all communications equipment and services that:

(1) Is produced or provided by any entity if, based exclusively on the following determinations, such equipment or service produced or provided by such an entity poses an unacceptable risk to the national security of the United States or the security and safety of United States persons. The sources for these determinations are:

(i) A specific determination made by any executive branch interagency body with appropriate national security expertise, including the Federal Acquisition Security Council established under section 1222(a) of title 41, United States Code;

(ii) A specific determination made by the Department of Commerce pursuant to Executive Order No. 13873 (relating to securing the information and communications technology and services supply chain);

(iii) Equipment or service being covered telecommunications equipment or services, as defined in section 889(f)(3) of the John S. McCain National

Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115–232; 132 Stat. 1918); or

(iv) A specific determination made by an appropriate national security agency.

(2) And is capable of:

(i) Routing or redirecting user data traffic or permitting visibility into any user data or packets that such equipment or service transmits or otherwise handles;

(ii) Causing the networks of a provider of advanced communications services to be disrupted remotely; or

(iii) Otherwise posing an unacceptable risk to the national security of the United States or the security and safety of United States persons.

§ 1.40003 Updates to the Covered List.

(a) *Consultation with External Sources.* The Public Safety and Homeland Security Bureau shall monitor the status of external determinations in order to place additional communications equipment or services on the Covered List or to remove communications equipment and services from the Covered List.

(b) *External Determination Reversal.* If an external determination regarding communications equipment or service on the Covered List is reversed, the Commission shall remove such equipment or service from the Covered List, except the Commission may not remove such equipment or service if any other of the sources identified in § 1.40002(b)(1)(i) through (iv) maintains an external determination supporting inclusion on the Covered List of such equipment or service.

PART 54—UNIVERSAL SERVICE

■ 4. The authority citation for part 54 is revised to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 229, 254, 303(r), 403, 1004, 1302, and 1601–1609, unless otherwise noted.

■ 5. Add § 54.10 to subpart A to read as follows:

§ 54.10 Prohibition on use of certain Federal subsidies.

(a) A Federal subsidy made available through a program administered by the Commission that provides funds to be used for the capital expenditures necessary for the provision of advanced communications service may not be used to:

(1) Purchase, rent, lease, or otherwise obtain any covered communications equipment or service; or

(2) Maintain any covered communications equipment or service previously purchased, rented, leased, or otherwise obtained.

(b) The term ''covered communications equipment or service'' is defined in § 1.40001(c) of this chapter.

(c) The prohibition in paragraph (a) of this section applies with respect to any covered communications equipment or service beginning on the date that is 60 days after the date on which such equipment or service is placed on a published list pursuant to § 1.40002(b) of this chapter. In the case of any covered communications equipment or service that is on the initial list published pursuant to § 1.40002(b), such equipment or service shall be treated as being placed on the list on the date which such list is published.

■ 6. Add subpart P to read as follows:

Subpart P—Secure and Trusted Communications Networks Reimbursement Program

Sec.
54.1600 Purpose.
54.1601 [Reserved]
54.1602 Enforcement.

Subpart P—Secure and Trusted Communications Networks Reimbursement Program

§ 54.1600 Purpose.

The purpose of this subpart is to set out the terms by which providers of advanced communications service can seek and obtain reimbursements to replace covered communications equipment or services in accordance with the Secure and Trusted Communications Networks Act of 2019, Public Law 116–124, 133 Stat. 158.

§ 54.1601 [Reserved]

§ 54.1602 Enforcement.

(a) *General enforcement.* In addition to the penalties provided under the Communications Act of 1934, as amended, and § 1.80 of this chapter, if a recipient in the Secure and Trusted Communications Networks Reimbursement Program (Program) violates the Secure and Trusted Communications Networks Act of 2019, Public Law 116–124, 133 Stat. 158, the Commission's rules implementing that statute, or the commitments made by the recipient in the application for reimbursement, the recipient:

(1) Shall repay to the Commission all reimbursement funds provided to the recipient under the Program;

(2) Shall be barred from further participation in the Program;

(3) Shall be referred to all appropriate law enforcement agencies or officials for further action under applicable criminal and civil law; and

(4) May be barred by the Commission from participation in other programs of the Commission, including the Federal universal service support programs established under section 254 of the Communications Act of 1934, as amended.

(b) *Notice and opportunity to cure.* The penalties described in paragraph (a) of this section shall not apply to a recipient unless:

(1) The Commission, the Wireline Competition Bureau, or the Enforcement Bureau provides the recipient with notice of the violation; and

(2) The recipient fails to cure the violation within 180 days after the Commission or Bureau provides such notice.

(c) *Recovery of funds.* The Commission will immediately take action to recover all reimbursement funds awarded to a recipient under the Program in any case in which such recipient is required to repay reimbursement funds under paragraph (a) of this section.

[FR Doc. 2020–17223 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

[Docket No. 200715–0191; RTID 0648–XR113]

Endangered and Threatened Wildlife; 90-Day Finding on a Petition To List the Black Teatfish as Threatened or Endangered Under the Endangered Species Act

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: 90-Day petition finding, request for information, and initiation of status review.

SUMMARY: We, NMFS, announce a 90-day finding on a petition to list the black teatfish (*Holothuria nobilis*) as threatened or endangered under the Endangered Species Act (ESA). We find that the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Therefore, we are initiating a status review of the species to determine whether listing under the ESA is warranted. To ensure this status review is comprehensive, we are soliciting scientific and commercial information regarding this species.

DATES: Scientific and commercial information pertinent to the petitioned action must be received by October 9, 2020.

ADDRESSES: You may submit comments on this document, identified by NOAA–NMFS–2020–0093 by the following method:

• *Electronic Submissions:* Submit all electronic public comments via the Federal eRulemaking Portal. Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2020-0093.* Click the ''Comment Now'' icon, complete the required fields, and enter or attach your comments.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

Interested persons may obtain a copy of the petition online at the NMFS website: *https://www.fisheries.noaa.gov/national/endangered-species-conservation/petitions-awaiting-90-day-findings.*

FOR FURTHER INFORMATION CONTACT: Adrienne Lohe, NMFS Office of Protected Resources, (301) 427–8442, *Adrienne.Lohe@noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On May 14, 2020, we received a petition from the Center for Biological Diversity to list the black teatfish (*Holothuria nobilis*) as a threatened or endangered species under the ESA. The petition asserts that *H. nobilis* is threatened by four of the five ESA section 4(a)(1) factors: (1) Present and threatened modification of its habitat; (2) overutilization for commercial purposes; (3) inadequacy of existing regulatory mechanisms; and (4) other natural or manmade factors. The petition is available online (see **ADDRESSES**).

ESA Statutory, Regulatory, and Policy Provisions and Evaluation Framework

Section 4(b)(3)(A) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires, to the maximum extent practicable, that within 90 days of receipt of a petition to list a species as threatened or endangered, the Secretary of Commerce make a finding on whether that petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted, and to promptly publish such finding in the **Federal Register** (16 U.S.C. 1533(b)(3)(A)). When it is found that substantial scientific or commercial information in a petition indicates the petitioned action may be warranted (a ''positive 90-day finding''), we are required to promptly commence a review of the status of the species concerned during which we will conduct a comprehensive review of the best available scientific and commercial information. In such cases, we conclude the review with a finding as to whether, in fact, the petitioned action is warranted within 12 months of receipt of the petition. Because the finding at the 12-month stage is based on a more thorough review of the available information, as compared to the narrow scope of review at the 90-day stage, a ''may be warranted'' finding does not prejudge the outcome of the status review.

Under the ESA, a listing determination may address a species, which is defined to also include subspecies and, for any vertebrate species, any distinct population segment (DPS) that interbreeds when mature (16 U.S.C. 1532(16)). A joint NMFS–U.S. Fish and Wildlife Service (USFWS) (jointly, ''the Services'') policy clarifies the agencies' interpretation of the phrase ''distinct population segment'' for the purposes of listing, delisting, and reclassifying a species under the ESA (61 FR 4722; February 7, 1996). A species, subspecies, or DPS is ''endangered'' if it is in danger of extinction throughout all or a significant portion of its range, and ''threatened'' if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (ESA sections 3(6) and 3(20), respectively, 16 U.S.C. 1532(6) and (20)). Pursuant to the ESA and our implementing regulations, we determine whether species are threatened or endangered based on any one or a combination of the following five section 4(a)(1) factors: (1) The present or threatened destruction, modification, or curtailment of habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms to address identified threats; (5) or any other natural or manmade factors affecting the species' existence (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)).

ESA-implementing regulations issued jointly by NMFS and USFWS (50 CFR 424.14(h)(1)(i)) define ''substantial scientific or commercial information'' in the context of reviewing a petition to list, delist, or reclassify a species as credible scientific or commercial information in support of the petition's claims such that a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted. Conclusions drawn in the petition without the support of credible scientific or commercial information will not be considered ''substantial information.'' In reaching the initial (90-day) finding on the petition, we will consider the information described in sections 50 CFR 424.14(c), (d), and (g) (if applicable).

Our determination as to whether the petition provides substantial scientific or commercial information indicating that the petitioned action may be warranted will depend in part on the degree to which the petition includes the following types of information: (1) Information on current population status and trends and estimates of current population sizes and distributions, both in captivity and the wild, if available; (2) identification of the factors under section 4(a)(1) of the ESA that may affect the species and where these factors are acting upon the species; (3) whether and to what extent any or all of the factors alone or in combination identified in section 4(a)(1) of the ESA may cause the species to be an endangered species or threatened species (*i.e.,* the species is currently in danger of extinction or is likely to become so within the foreseeable future), and, if so, how high in magnitude and how imminent the threats to the species and its habitat are; (4) information on adequacy of regulatory protections and effectiveness of conservation activities by States as well as other parties, that have been initiated or that are ongoing, that may protect the species or its habitat; and (5) a complete, balanced representation of the relevant facts, including information that may contradict claims in the petition. *See* 50 CFR 424.14(d).

If the petitioner provides supplemental information before the initial finding is made and states that it is part of the petition, the new information, along with the previously submitted information, is treated as a new petition that supersedes the original petition, and the statutory timeframes will begin when such

supplemental information is received. *See* 50 CFR 424.14(g).

We may also consider information readily available at the time the determination is made. We are not required to consider any supporting materials cited by the petitioner if the petitioner does not provide electronic or hard copies, to the extent permitted by U.S. copyright law, or appropriate excerpts or quotations from those materials (*e.g.,* publications, maps, reports, letters from authorities). *See* 50 CFR 424.14(c)(6).

The ''substantial scientific or commercial information'' standard must be applied in light of any prior reviews or findings we have made on the listing status of the species that is the subject of the petition. Where we have already conducted a finding on, or review of, the listing status of that species (whether in response to a petition or on our own initiative), we will evaluate any petition received thereafter seeking to list, delist, or reclassify that species to determine whether a reasonable person conducting an impartial scientific review would conclude that the action proposed in the petition may be warranted despite the previous review or finding. Where the prior review resulted in a final agency action—such as a final listing determination, 90-day not-substantial finding, or 12-month not-warranted finding—a petition will generally not be considered to present substantial scientific and commercial information indicating that the petitioned action may be warranted unless the petition provides new information or analysis not previously considered. *See* 50 CFR 424.14(h)(1)(iii).

At the 90-day finding stage, we do not conduct additional research, and we do not solicit information from parties outside the agency to help us in evaluating the petition. We will accept the petitioners' sources and characterizations of the information presented if they appear to be based on accepted scientific principles, unless we have specific information in our files that indicates the petition's information is incorrect, unreliable, obsolete, or otherwise irrelevant to the requested action. Information that is susceptible to more than one interpretation or that is contradicted by other available information will not be dismissed at the 90-day finding stage, so long as it is reliable and a reasonable person conducting an impartial scientific review would conclude it supports the petitioners' assertions. In other words, conclusive information indicating the species may meet the ESA's requirements for listing is not required to make a positive 90-day finding. We will not conclude that a lack of specific information alone necessitates a negative 90-day finding if a reasonable person conducting an impartial scientific review would conclude that the unknown information itself suggests the species may be at risk of extinction presently or within the foreseeable future.

To make a 90-day finding on a petition to list a species, we first evaluate whether the information presented in the petition, in light of the information readily available in our files, indicates that the petitioned entity constitutes a ''species'' eligible for listing under the ESA. Next, if we conclude the petition presents substantial scientific or commercial information suggesting that the petitioned entity may constitute a ''species,'' we evaluate whether the information indicates that the species may face an extinction risk such that listing, delisting, or reclassification may be warranted; this may be indicated in information expressly discussing the species' status and trends, or in information describing impacts and threats to the species. We evaluate whether the petition presents any information on specific demographic factors pertinent to evaluating extinction risk for the species (*e.g.,* population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), and the potential contribution of identified demographic risks to extinction risk for the species. We then evaluate whether the petition presents information suggesting potential links between these demographic risks and the causative impacts and threats identified in section 4(a)(1) of the ESA.

Information presented on impacts or threats should be specific to the species and should reasonably suggest that one or more of these factors may be operative threats that act or have acted on the species to the point that it may warrant protection under the ESA. Broad statements about generalized threats to the species, or identification of factors that could negatively impact a species, do not constitute substantial information indicating that listing may be warranted. We look for information indicating that not only is the particular species exposed to a factor, but that the species may be responding in a negative fashion; then we assess the potential significance of that negative response.

Many petitions identify risk classifications made by nongovernmental organizations, such as the International Union on the Conservation of Nature (IUCN), the American Fisheries Society, or NatureServe, as evidence of extinction risk for a species. Risk classifications by other organizations or made under other Federal or state statutes may be informative, but such classification alone may not provide the rationale for a positive 90-day finding under the ESA. For example, as explained by NatureServe, their assessments of a species' conservation status do ''not constitute a recommendation by NatureServe for listing under the U.S. Endangered Species Act'' because NatureServe assessments ''have different criteria, evidence requirements, purposes and taxonomic coverage than government lists of endangered and threatened species, and therefore these two types of lists should not be expected to coincide'' (*https://explorer.natureserve.org/AboutTheData/DataTypes/ConservationStatusCategories*). Additionally, species classifications under IUCN and the ESA are not equivalent; data standards, criteria used to evaluate species, and treatment of uncertainty are also not necessarily the same. Thus, when a petition cites such classifications, we will evaluate the source of information that the classification is based upon in light of the standards on extinction risk and impacts or threats discussed above.

Taxonomy

Morphological characteristics were historically used to distinguish between teatfish species, though morphological features alone were determined to be unreliable markers of identification due to high interspecies variability (Uthicke *et al.* 2004). The more recent use of molecular analyses resolved taxonomic confusion between teatfish in the western Indian Ocean and southwestern Pacific Oceans, distinguishing between three species: (1) *Holothuria whitmaei:* Black/dark brown specimens found in waters of Australia and the southwest Pacific; (2) *H. fuscogilva:* White/beige specimens with dark markings broadly distributed throughout the tropical Indo-Pacific; and (3) *H. nobilis:* Black specimens with white ventro-lateral patches found in the western Indian Ocean (Uthicke *et al.* 2004). The two black teatfish (*H. whitmaei,* with distribution in the Pacific Ocean, and *H. nobilis,* with distribution in the Indian Ocean) appear to be allopatric with a genetic distance of 9.2 percent, implying a divergence during the Pliocene of approximately 1.8–4.6 million years (Uthicke *et al.* 2004). Further molecular analyses support the distinction between *H. nobilis* and *H. fuscogilva,* once considered synonyms, as different

species (Ahmed *et al.* 2016). We conclude that the petitioned entity, *H. nobilis,* constitutes a species eligible for listing under the ESA.

Distribution, Habitat, and Life History

The black teatfish occurs in coral reef habitats between 0 and 40 meters depth, and is most commonly found in reef flats and outer reef slopes with a preference for hard substrates (CITES 2019; Conand *et al.* 20013; Eriksson *et al.* 2012; Idreesbabu and Sureshkumar 2017; Lawrence *et al.* 2004). The species may also be found in shallow seagrass beds (CITES 2019; Conand *et al.* 2013). *H. nobilis* is distributed in the Indian Ocean, including along the east coast of Africa, the Red Sea, and coastal waters of Madagascar, La Reunion, Yemen, Oman, the west coast of India, Sri Lanka, Seychelles, Comoros, and the Maldives (Conand *et al.* 2013; Uthicke *et al.* 2004).

Sea cucumbers of the order Aspidochirotida, including *H. nobilis,* are deposit and detritus feeders that digest organic matter such as bacteria in the top few millimeters of sediment (as reviewed by Purcell *et al.* 2016). Teatfish are non-migratory and relatively sedentary, with slow growth rates and longevity estimated at several decades (FAO 2019). Teatfish generally mature at 3–7 years (FAO 2019), and *H. nobilis* is reported to mature at 4 years (Conand *et al.* 2013). Teatfish reproduce sexually through broadcast spawning, therefore successful fertilization depends upon density and proximity of male and female teatfish to one another (CITES 2019; FAO 2019; Purcell *et al.* 2010; Purcell *et al.* 2011). As teatfish generally exhibit low natural mortality rates, low to moderate population growth, and suspected high larval mortality, their overall productivity is low (CITES 2019; FAO 2019).

Abundance and Population Trends

Although data on abundance and population trends for *H. nobilis* are sparse, available data indicate that the species has declined by 60–70 percent across at least 80 percent of its range since the 1960s, and continues to decrease (CITES 2019; Conand *et al.* 2013). Intense pressure from harvest for international trade has resulted in extremely low densities or no black teatfish observed at surveyed sites throughout its range with few exceptions, and these observations are matched by decreased exports (FAO 2019). In Madagascar and Egypt, very few individuals of the species have been observed and stocks are considered depleted due to overexploitation (CITES 2019). In Tanzania, where *H. nobilis* once dominated the catch, the species now makes up a very small percentage of sea cucumber species harvested (CITES 20129; Conand *et al.* 2013). The species has also been depleted in Mozambique, India, Sri Lanka, the Red Sea, Maldives, and likely in Tanzania and Kenya, due to overfishing (Conand *et al.* 2013; Purcell *et al.* 2012). In Seychelles, harvest of *H. nobilis* was stable from 2003–2006 and harvest peaked at 10,371 individuals, and then fell in 2007 and 2008 to 5,687 individuals; this fishery is likely not depleted (Conand *et al.* 2013). Though teatfish harvest in small-scale, artisanal fisheries has generally not been monitored long-term, *H. nobilis* abundance is considered low compared to recognized baselines, and populations are declining throughout their range (FAO 2019).

Analysis of ESA Section 4(a)(1) Factors

The petition asserts that *H. nobilis* is threatened by four of the five ESA section 4(a)(1) factors: Present and threatened modification of coral reef and seagrass bed habitat, overutilization for commercial trade, inadequacy of existing regulatory mechanisms to control the threats of trade, fisheries and climate change, and other natural or manmade factors including a lack of basic biological and ecological information, risks of rarity, and bycatch. The primary threat facing the species is overharvest for commercial international trade (CITES 2019; FAO 2019), and we find that listing the black teatfish as a threatened or endangered species under the ESA may be warranted based on this threat alone. As such, we focus our discussion below on the evidence of overutilization for commercial purposes. However, we note that in the status review for this species, we will evaluate all ESA section 4(a)(1) factors to determine whether any one or a combination of these factors are causing declines in the species or likely to substantially negatively affect the species within the foreseeable future to such a point that the black teatfish is at risk of extinction or likely to become so in the foreseeable future.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

An estimated 10,000 tons of dried and processed sea cucumber are traded internationally each year, corresponding to about 200 million individuals harvested from marine ecosystems annually (Purcell *et al.* 2016). *H. nobilis* is one of the most highly valued sea cucumber species in the Indo-Pacific region (Bruckner 2006; Conand 2018; Conand *et al.* 2013; Muthiga & Conand 2013) and is sold dried and processed as ''beche-de-mer'' primarily to luxury food markets in Hong Kong, Singapore, Taiwan, China, Korea and Malaysia (CITES 2019; Purcell *et al.* 2012). Black teatfish is sold for $20 to $80/kg dry weight, depending on size and condition; prices in Hong Kong retail markets range from $106 to $139/kg dried (Purcell *et al.* 2012). Since the 1980s, the global sea cucumber fishery has dramatically increased in terms of number of producing countries, number of exploited species, increased fishing effort, and expanded fishing areas, leading to overexploitation and depletion of teatfish in most range countries (CITES 2019).

Several of the black teatfish's life history traits make it vulnerable to overexploitation, including its low mobility, slow growth, late maturity, density-dependent reproduction, and low recruitment rates (CITES 2019; FAO 2019). These traits, combined with its occurrence in shallow, easily accessible waters, and high value in international markets, have led to local extirpations and depletion of stocks throughout most of its range (CITES 2019; FAO 2019). The species is estimated to have declined between 60–70 percent over at least 80 percent of its range, as evidenced by vastly reduced catch per unit effort, reduced sizes of harvested individuals, and extremely low observed population densities (Conand *et al.* 2013). For example, transect data reveal population densities of 0.66 and 1.0 individuals per hectare in nearshore waters off Egypt and Eritrea, respectively, and range-wide density is estimated between 0.12 and 10 individuals per hectare (Conand *et al.* 2013). Even with fishery closures, sea cucumber stocks may recover slowly, potentially taking decades for populations to be restored (Anderson *et al.* 2011). Due to high demand that is not being met by current beche-de-mer production, fisheries pressure on the species is expected to continue (Conand *et al.* 2013; FAO 2019; Muthiga & Conand 2013). The information presented in the petition and briefly summarized here regarding the threat of overutilization for commercial purposes indicates that *H. nobilis* may be in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range.

Petition Finding

After reviewing the petition, the literature cited in the petition, and other information readily available in our files, we find that listing *H. nobilis* as a threatened or endangered species may

be warranted. Therefore, in accordance with section 4(b)(3)(A) of the ESA and NMFS' implementing regulations (50 CFR 424.14(h)(2)), we will commence a status review of this species. During the status review, we will determine whether *H. nobilis* is in danger of extinction (endangered) or likely to become so (threatened) throughout all or a significant portion of its range. As required by section 4(b)(3)(B) of the ESA, within 12 months of the receipt of the petition (May 14, 2020), we will make a finding as to whether listing the black teatfish as an endangered or threatened species is warranted. If listing is warranted, we will publish a proposed rule and solicit public comments before developing and publishing a final rule.

Information Solicited

To ensure that the status review is based on the best available scientific and commercial data, we are soliciting comments and information from interested parties on the status of the black teatfish. Specifically, we are soliciting information in the following areas:

(1) Historical and current abundance, density, and distribution of *H. nobilis;*

(2) Historical and current condition of habitat for *H. nobilis;*

(3) The effects of harvest for commercial international trade on the distribution and abundance of *H. nobilis* over the short- and long-term;

(4) The effects of other known or potential threats, including coral reef and seagrass bed degradation, climate change, disease and predation, and the inadequacy of existing regulatory mechanisms, on the distribution and abundance of *H. nobilis* over the short- and long-term; and

(5) Management or conservation programs for *H. nobilis,* including mitigation measures related to any of the threats listed above.

We request that all data and information be accompanied by supporting documentation such as maps, bibliographic references, or reprints of pertinent publications. Please send any comments to one of the **ADDRESSES** listed above. We will base our findings on a review of the best available scientific and commercial information available, including all information received during the public comment period.

References Cited

A complete list of all references cited herein is available upon request (See **FOR FURTHER INFORMATION CONTACT**).

Authority: The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: July 15, 2020.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 2020–15721 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register
Vol. 85, No. 154
Monday, August 10, 2020

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Board for International Food and Agricultural Development

Notice of Meeting

Pursuant to the Federal Advisory Committee Act, notice is hereby given of a public meeting of the Board for International Food and Agricultural Development (BIFAD), *COVID–19 and Nutrition: Impacts, Field Innovations, and the Way Forward.* The meeting will be held on September 14, 2020 from 10:00 a.m. to 12:30 p.m. EDT at *http://www.aplu.org/projects-and-initiatives/international-programs/bifad/bifad-meetings.html.* A public comment period is scheduled from 11:50 a.m. to 12:15 p.m. EDT.

This convening follows the June 4, 2020 181st BIFAD meeting, *Food Security and Nutrition in the Context of COVID–19,* to provide an update on the impacts of the pandemic on nutrition outcomes and to discuss USAID's response. The COVID–19 crisis risks backsliding on nutrition gains with irrevocable impacts on mortality and lost potential. Initial projections show likely significant increases in wasting and forthcoming analyses will quantify the potential impacts on small for gestational age, micronutrient deficiencies, stunting and declines in breastfeeding. Field reporting indicates significant reduction in coverage of key nutrition interventions. These will all translate in loss of life and development gains if not countered with adequate action on nutrition as global decision makers focus on response and recovery.

The meeting provides dedicated time to discuss how the global community can work together to protect and advance nutrition outcomes across sectors during COVID–19 response and recovery. In real time, researchers and implementers are gathering evidence to better understand the impacts of the pandemic and learning how to respond.

The meeting will be organized to achieve three objectives:

1. To provide an update on what emerging research and data can tell us about the current and expected impacts of COVID–19 containment and control measures on nutrition, and how we should use this emerging evidence to guide our response.

2. To learn from our implementing partners and USAID Missions across sectors that have pivoted their implementation to respond to COVID–19 and protect nutrition outcomes. To understand the realities on the ground, and to include the innovations and expertise of those on the frontlines in the discourse.

3. To discuss and prioritize actions for the near, medium, and long term to safeguard and accelerate nutrition progress.

The meeting is intended to help support decision making by USAID and its partners and stakeholders working to advance food security and nutrition at global, regional and national levels. On the basis of testimony, including public comments, shared at the meeting, BIFAD will provide formal findings, conclusions, and recommendations to the Agency on best-bet operational and programmatic investments.

BIFAD is a seven-member, presidentially appointed advisory board to USAID established in 1975 under Title XII of the Foreign Assistance Act, as amended. The provisions of Title XII concern bringing the assets of U.S. universities to bear on development challenges in agriculture and food security, and BIFAD's role is to help carry out this function.

Participants may register at *http://www.aplu.org/projects-and-initiatives/international-programs/bifad/bifad-meetings.html.* For questions about registration, please contact Jordan Merker at 202–478–6087 or *jmerker@aplu.org.* For questions about BIFAD, please contact Clara Cohen, Designated Federal Officer for BIFAD in the Bureau for Resilience and Food Security, USAID at *ccohen@usaid.gov* or (202) 712–0119.

Clara Cohen,

Designated Federal Officer, BIFAD.

[FR Doc. 2020–17387 Filed 8–7–20; 8:45 am]

BILLING CODE 6116–02–P

DEPARTMENT OF AGRICULTURE

Farm Service Agency

Commodity Credit Corporation

[Docket ID CCC–2016–0004]

Notice of Funds Availability (NOFA) for the Organic Certification Cost Share Program

AGENCY: Commodity Credit Corporation and Farm Service Agency, USDA.

ACTION: Notice.

SUMMARY: The Farm Service Agency (FSA), on behalf of the Commodity Credit Corporation (CCC), is announcing changes to the availability of funding and payment calculation for certified organic operations, which are required based on expected participation levels and limited funding, under the Organic Certification Cost Share Program (OCCSP). FSA is also announcing the opportunity for State Agencies to apply for grant agreements to administer the OCCSP program in fiscal year (FY) 2020.

DATES: *Applications for State Agency Agreements:* FSA will accept applications from State Agencies for funds for FY 2020 cost share assistance between the period of August 10, 2020, and September 9, 2020.

Producer and Handler Applications: FSA county offices will accept applications for OCCSP payments from producers and handlers for FY 2020 until October 31, 2020. For FY 2021 through 2023, FSA will accept applications from October 1 of the applicable FY through October 31 of the following FY.

FOR FURTHER INFORMATION CONTACT: Tona Huggins, Program Policy Branch Chief, (202) 720–6825, *Tona.Huggins@wdc.usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

OCCSP provides cost share assistance to producers and handlers of agricultural products for the costs of obtaining or maintaining organic certification under the National Organic Program (NOP). Funding for OCCSP is provided through two authorizations: (1) National Organic Certification Cost Share Program (National OCCSP)

funds [1] and (2) Agricultural Management Assistance (AMA) funds.[2] Section 10105 of the Agricultural Improvement Act of 2018 (2018 Farm Bill, Pub. L. 115–334) amended section 10606(d) of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 6523(d)), authorizing $2 million from CCC to be used for National OCCSP for each of FYs 2019 and 2020, $4 million for FY 2021, and $8 million for each of FYs 2022 and 2023, to remain available until expended. In addition, approximately $4 million in National funding remains available from previous FYs and will be used to fund OCCSP in 2020. An additional $1 million in AMA funding is authorized in 7 U.S.C. 1524 for each FY.

The purpose of this NOFA is to announce changes to the funding availability and payment calculation provisions for FY 2020 through 2023 and to notify State Agencies of the opportunity to apply to administer OCCSP in their State for FY 2020. On April 29, 2019, FSA published a NOFA in the **Federal Register** announcing general eligibility and administrative provisions for OCCSP for FY 2019 through 2023 (84 FR 17997). The 2019 NOFA provided that eligible certified organic operations could receive reimbursement of 75 percent of their eligible costs to obtain or maintain their organic certification, up to a maximum payment of $750 per scope, which is the maximum payment allowed by law. In FY 2019 and prior years, funds were available to cover all applications; however, the amount of funding available will not cover expected participation levels in FY 2020.

For FY 2020 through 2023, FSA is revising the reimbursement amount to 50 percent of the certified organic operation's eligible expenses, up to a maximum of $500 per scope. This change is due to the limited amount of funding available and will allow a larger number of certified organic operations to receive assistance. If additional funding is authorized at a later time, FSA may provide additional assistance to certified operations that have applied for OCCSP, not to exceed 75 percent of their eligible costs, up to $750 per scope.

The changes to the payment calculation and maximum payment amount are applicable to all certified organic operations, regardless of whether they apply through an FSA county office or a participating State Agency. Due to the changes, State Agencies that are interested in overseeing reimbursements to producers and handlers in their States must establish new agreements with FSA for FY 2020. FY 2020 agreements will include provisions that allow FSA to extend the agreements to provide additional funds and allow State Agencies to continue to administer OCCSP for future years. FSA has not yet determined whether an additional application period will be announced for later years for State Agencies that choose not to participate in FY 2020; State Agencies that would like to administer OCCSP for future years are encouraged to establish an agreement for FY 2020 to ensure that they will be able to continue to participate. If additional funds are authorized for OCCSP for FY 2020, FSA and State Agencies may amend the grant agreements to provide additional funds and increase the payment amount that a certified organic operation may receive.

To provide cost share assistance for FY 2020, State Agencies must complete an Application for Federal Assistance (Standard Form 424 and 424B) and enter into a grant agreement with FSA. State Agencies must submit the Application for Federal Assistance (Standard Form 424 and 424B) electronically via *Grants.gov*, the Federal grants website, at *http://www.grants.gov.* For information on how to use *Grants.Gov*, please consult *http://www.grants.gov/GetRegistered.* State Agencies intending to utilize subgrantees must refer to the FY 2020 Full Notice of Funding Opportunity Announcement on *Grants.Gov* for additional application requirements. FSA will accept applications from State Agencies for funds for FY 2020 cost share assistance between the period of August 10, 2020, and September 9, 2020.

Paperwork Reduction Act Requirements

There are no changes to the information collection request for OCCSP that has been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act. The OMB control number for the approval is 0560–0289.

Catalog of Federal Domestic Assistance

The title and number of the Federal assistance program in the Catalog of Federal Domestic Assistance to which this NOFA applies is 10.171, Organic Certification Cost Share Program (OCCSP).

Environmental Review

The environmental impacts of this NOFA have been considered in a manner consistent with the provisions of the National Environmental Policy Act (NEPA, 42 U.S.C. 4321–4347), the regulations of the Council on Environmental Quality (40 CFR parts 1500–1508), and the FSA regulations for compliance with NEPA (7 CFR part 799). The purpose of OCCSP is to provide cost share assistance to producers and handlers of agricultural products in obtaining organic certification. This NOFA merely announces funding availability and changes to general eligibility and administrative provisions for FY 2020 through 2023. FSA is not making substantive changes to OCCSP. As such, the Categorical Exclusions found at 7 CFR part 799.31 apply, specifically 7 CFR 799.31(b)(6)(iii) (that is, financial assistance to supplement income). No Extraordinary Circumstances (7 CFR 799.33) exist. As such, FSA has determined that this NOFA does not constitute a major Federal action that would significantly affect the quality of the human environment, individually or cumulatively. Therefore, FSA will not prepare an environmental assessment or environmental impact statement for this administrative action and this NOFA serves as documentation of the programmatic environmental compliance decision.

Steven Peterson,

Acting Administrator, Farm Service Agency.

Robert Stephenson,

Executive Vice President, Commodity Credit Corporation.

[FR Doc. 2020–17385 Filed 8–7–20; 8:45 am]

BILLING CODE 3410–05–P

[1] National OCCSP funds provide assistance for organic producers and handlers in in the 50 United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands. The funds can be used for cost share payments for the four categories, or ''scopes,'' recognized under the USDA organic regulations (crops, livestock, wild crops, and handling), and for the additional scope of State organic program fees.

[2] AMA funds provide assistance for producers in the following States: Connecticut, Delaware, Hawaii, Maryland, Massachusetts, Maine, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. The funds can be used for cost share payments for the three scopes of crops, wild crops, and livestock.

DEPARTMENT OF AGRICULTURE

Forest Service

Missoula Resource Advisory Committee; Meeting

AGENCY: Forest Service, USDA.

ACTION: Notice of meeting.

SUMMARY: The Missoula Resource Advisory Committee (RAC) will hold a virtual meeting. The committee is authorized under the Secure Rural Schools and Community Self-Determination Act (the Act) and operates in compliance with the Federal Advisory Committee Act. The purpose of the committee is to improve collaborative relationships and to provide advice and recommendations to the Forest Service concerning projects and funding consistent with the Act. RAC information can be found at the following website: *https://www.fs.usda.gov/detail/lolo/workingtogether/advisorycommittees/?cid=fsm9_021467.*

DATES: The meeting will be held on September 8, 2020, starting at 3 p.m. (MST).

All RAC meetings are subject to cancellation. For status of meeting prior to attendance, please contact the person listed under **FOR FURTHER INFORMATION CONTACT.**

ADDRESSES: The meeting will be held with virtual attendance only. For virtual meeting information, please contact the person listed under **FOR FURTHER INFORMATION CONTACT.**

Written comments may be submitted as described under **SUPPLEMENTARY INFORMATION.** All comments, including names and addresses when provided, are placed in the record and are available for public inspection and copying. The public may inspect comments received at Lolo National Forest Supervisor's Office. Please call ahead to facilitate entry into the building.

FOR FURTHER INFORMATION CONTACT: Quinn Carver, Designated Federal Officer (DFO), by phone at 406–677–3905 or email at *quinn.carver@usda.gov;* or Kate Jerman at 406–552–7944 or email at *katelyn.jerman@usda.gov.*

Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8:00 a.m. and 8:00 p.m., Eastern Standard Time, Monday through Friday.

SUPPLEMENTARY INFORMATION: The purpose of the meeting is to:

1. Hear proposal presentations;
2. Approve meeting minutes;
3. Discuss, recommend, and approve new Title II projects; and
4. Discuss and make recommendations on recreation fee proposals for sites located within Missoula County on the Lolo National Forest.

The meeting is open to the public. The agenda will include time for people to make oral statements of three minutes or less. Individuals wishing to make an oral statement should request in writing by September 3, 2020, to be scheduled on the agenda. Anyone who would like to bring related matters to the attention of the committee may file written statements with the committee staff before or after the meeting. Written comments and requests for time to make oral comments must be sent to Kate Jerman, RAC Coordinator, Lolo National Forest Supervisor's Office, 24 Fort Missoula Road, Missoula, Montana 59804; or by email to *katelyn.jerman@usda.gov.*

Meeting Accommodations: If you are a person requiring reasonable accommodation, please make requests in advance for sign language interpreting, assistive listening devices, or other reasonable accommodation. For access to the facility or proceedings, please contact the person listed in the section titled **FOR FURTHER INFORMATION CONTACT.** All reasonable accommodation requests are managed on a case-by-case basis.

Dated: August 4, 2020.

Cikena Reid,

USDA Committee Management Officer.

[FR Doc. 2020–17361 Filed 8–7–20; 8:45 am]

BILLING CODE 3411–15–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Delaware Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA), that a planning meeting of the Delaware Advisory Committee to the Commission will convene by conference call, on Wednesday, September 2, 2020 at 1:00 p.m. (EDT). The purpose of the meeting is for project planning and selection of additional Committee officers.

DATES: Wednesday, September 2, 2020 at 1:00 p.m. (EDT).

ADDRESSES: Conference call number: 1–800–367–2403 and conference call ID: 4195799.

FOR FURTHER INFORMATION CONTACT: Ivy L. Davis, at *ero@usccr.gov* or by phone at 202–376–7533.

SUPPLEMENTARY INFORMATION: Interested members of the public may listen to the discussion by calling the following toll-free conference call number: 1–800–367–2403 and conference call ID: 4195799. Please be advised that before placing them into the conference call, the conference call operator may ask callers to provide their names, their organizational affiliations (if any), and email addresses (so that callers may be notified of future meetings). Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number herein.

Persons with hearing impairments may also follow the discussion by first calling the Federal Relay Service at 1–800–877–8339 and providing the operator with the toll-free conference call number:1–800–822–2024 and conference call ID: 4195799.

Members of the public are invited make statements during the Public Comment section of the meeting or to submit written comments; the written comments must be received in the regional office approximately 30 days after each scheduled meeting. Written comments may be mailed to the Eastern Regional Office, U.S. Commission on Civil Rights, 1331 Pennsylvania Avenue, Suite 1150, Washington, DC 20425 or emailed to Evelyn Bohor at *ero@usccr.gov.* Persons who desire additional information may contact the Eastern Regional Office at (202) 376–7533.

Records and documents discussed during the meeting will be available for public viewing, as they become available at this FACA link, click the ''Meeting Details'' and ''Documents'' links. Records generated from this meeting may also be inspected and reproduced at the Eastern Regional Office, as they become available, both before and after the meetings. Persons interested in the work of this advisory committee are advised to go to the Commission's website, *www.usccr.gov,* or to contact the Eastern Regional Office at the above phone number, email or street address.

Agenda

Wednesday, September 2, 2020 at 1:00 p.m. (EDT)

I. Welcome and Roll Call
II. Project Planning
III. Other Business
IV. Next Planning Meeting
V. Public Comments
VI. Next Meeting
VII. Adjourn

Dated: August 5, 2020.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2020–17391 Filed 8–7–20; 8:45 am]

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DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–983]

Drawn Stainless Steel Sinks From the People's Republic of China: Partial Rescission of Antidumping Duty Administrative Review; 2019–2020

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) is partially rescinding its administrative review of the antidumping duty (AD) order on drawn stainless steel sinks (drawn sinks) from the People's Republic of China (China) for the period of review (POR) April 1, 2019 through March 31, 2020.

DATES: August 10, 2020.

FOR FURTHER INFORMATION CONTACT: Adam Simons, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–2972.

SUPPLEMENTARY INFORMATION:

Background

On April 1, 2019, Commerce published in the **Federal Register** a notice of ''Opportunity to Request Administrative Review'' of the AD order on drawn sinks from China for the POR.[1]

In April 2020, Commerce received timely requests from Elkay Manufacturing Company, KaiPing Dawn Plumbing Products, Inc. (KaiPing Dawn), and Zuhai Kohler Kitchen & Bathroom Products, Ltd. (Zuhai Kohler) to conduct an administrative review of the AD order on drawn sinks from China.[2]

On June 8, 2020, in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act), Commerce published in the **Federal Register** a notice of initiation of an administrative review of the AD order.[3] The administrative review was initiated with respect to 29 companies, and covers the period April 1, 2019 through March 31, 2020. Subsequent to the initiation of the administrative review, the petitioner in this proceeding, Elkay Manufacturing Company, timely withdrew its review requests for 23 of these companies, as discussed below.

Partial Rescission of Review

Pursuant to 19 CFR 351.213(d)(1), Commerce will rescind an administrative review, in whole or in part, if a party that requested a review withdraws its request within 90 days of the date of publication of notice of initiation of the requested review. The petitioner withdrew its request for an administrative review of the following companies within 90 days of the date of publication of the *Initiation Notice:*[4] B&R Industries Limited; Feidong Import and Export Co., Ltd.; Foshan Shunde MingHao Kitchen Utensils Co., Ltd.; Foshan Zhaoshun Trade Co., Ltd.; Franke Asia Sourcing Ltd.; Grand Hill Work Company; Guandong Dongyuan Kitchenware Industrial Co., Ltd.; Guangdong New Shichu Import & Export Company Limited; Guandong Yingao Kitchen Utensils Co., Ltd.; Hangzhou Heng's Industries Co., Ltd.; Hubei Foshan Success Imp & Exp Co. Ltd.; J&C Industries Enterprise Limited; Jiangmen Hongmao Trading Co., Ltd.; Jiangxi Zoje Kitchen & Bath Industry Co., Ltd.; Ningbo Afa Kitchen and Bath Co., Ltd./Yuyao Afa Kitchenware Co., Ltd.; Ningbo Oulin Kitchen Utensils Co., Ltd.; Primy Cooperation Limited; Shenzhen Kehuaxing Industrial Ltd.; Shunde Foodstuffs Import & Export Company Limited of Guangdong; Shunde Native Produce Import and Export Co., Ltd. of Guangdong; Xinhe Stainless Steel Products Co., Ltd.; Zhongshan Newecan Enterprise Development Corporation; and Zhongshan Silk Imp. & Exp. Group Co., Ltd. of Guangdong. Accordingly, Commerce is rescinding this review, in part, with respect to these companies, in accordance with 19 CFR 353.213(d)(1).[5]

The instant review will continue with respect to the following companies: Guangdong G-Top Import and Export Co., Ltd.; Jiangmen New Star Hi-Tech Enterprise Ltd.; Jiangmen Pioneer Import & Export Co., Ltd.; KaiPing Dawn Plumbing Products, Inc.; Zhongshan Superte Kitchenware Co., Ltd.; and Zhuhai Kohler Kitchen & Bathroom Products Co., Ltd.

Assessment

Commerce will instruct U.S. Customs and Border Protection (CBP) to assess antidumping duties on all appropriate entries. For the companies for which this review is rescinded, antidumping duties shall be assessed at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, in accordance with 19 CFR 351.212(c)(1)(i). Commerce intends to issue appropriate assessment instructions directly to CBP 15 days after the date of publication of this notice in the **Federal Register**.

Notification to Importers

This notice serves as the only reminder to importers whose entries will be liquidated as a result of this rescission notice, of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties and/or countervailing duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement may result in the presumption that reimbursement of antidumping duties and/or countervailing duties occurred and the subsequent assessment of double antidumping duties.

Notification Regarding Administrative Protective Order

This notice serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

[1] *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review,* 85 FR 18191 (April 1, 2020).

[2] *See* Letter from Elkay, ''Re: Drawn Stainless Steel Sinks from the People's Republic of China: Request for Administrative Review,'' dated April 30, 2020. *See also* Letter from KaiPing Dawn, ''RE: Drawn Stainless Steel Sinks from the People's Republic of China: Request for Antidumping Administrative Review,'' dated April 23, 2020; and Letter from Zuhai Kohler, ''RE: Antidumping Duty Review of Drawn Stainless Steel Sinks from the People's Republic of China: Request for Administrative Review,'' dated April 30, 2020.

[3] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 85 FR 35068 (June 8, 2020) (*Initiation Notice*).

[4] *See* Letter from the Petitioner, ''Re: Drawn Stainless Steel Sinks from the People's Republic of China: Notice of Partial Withdrawal of Request for Administrative Review,'' dated July 23, 2020.

[5] Commerce no longer considers the non-market economy entity as an exporter conditionally subject to administrative reviews. *See Antidumping Proceedings; Announcement of Change in Department Practice for Respondent Selection in Antidumping Duty Proceedings and Conditional Review of the Nonmarket Economy Entity in NME Antidumping Duty Proceedings,* 78 FR 65963 (November 3, 2013).

This notice is published in accordance with section 751 of the Act and 19 CFR 351.213(d)(4).

Dated: August 3, 2020.

James Maeder,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2020–17331 Filed 8–7–20; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA122]

Take of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Hampton Roads Bridge-Tunnel Expansion Project, Hampton-Norfolk, Virginia

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of an incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to the Hampton Roads Connector Partners (HRCP) to incidentally harass, by Level A and Level B harassment, marine mammals during pile driving and removal activities associated with the Hampton Roads Bridge-Tunnel (HRBT) Expansion Project, Hampton-Norfolk, Virginia.

DATES: This Authorization is effective for one year from July 10, 2020 to July 9, 2021.

FOR FURTHER INFORMATION CONTACT: Stephanie Egger, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.* In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be provided to the public for review. Under the MMPA, ''take'' is defined as meaning to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

Summary of Request

On September 18, 2019, NMFS received a request from the HRCP for an IHA to take marine mammals incidental to impact and vibratory pile driving activities associated with the HRBT, in Hampton and Norfolk, Virginia for one year from the date of issuance. The application was deemed adequate and complete on February 4, 2020. The HRCP request is for take of a small number of five species of marine mammals by Level A and B harassment. Neither the HRCP nor NMFS expects injury, serious injury or mortality to result from this activity and, therefore, an IHA is appropriate. The planned activities are part of a larger project and the applicant has requested rulemaking and a letter of authorization for the other components of this project.

Description of Specified Activity

Overview

The HRCP is working with the Virginia Department of Transportation (VDOT) and Federal and state agencies to advance the design, approvals, and multi-year construction of the Interstate (I)–64 HRBT Expansion project. The overall project will widen I–64 for approximately 15.93 kilometer (km) (9.9 miles) along I–64 from Settlers Landing Road in Hampton, Virginia to the I–64/I–564 interchange in Norfolk, Virginia. The project will create an eight-lane facility with six consistent use lanes. The project will include full replacement of the North and South Trestle Bridges, two new parallel tunnels constructed using a Tunnel Boring Machine (TBM), expansion of the existing portal islands, and widening of the Willoughby Bay Trestle Bridges, Bay Avenue Trestle Bridges, and Oastes Creek Trestle Bridges. Also, upland portions of I–64 will be widened to accommodate the additional lanes, the Mallory Street Bridge will be replaced, and the I–64 overpass bridges will be improved. The planned activities below are part of the overall project (see the application for additional details on the overall project). Only the activities relevant to the IHA requested by HRCP are discussed below. This includes the following components:

- TBM Platform at the South Island;
- Conveyor Trestle at the South Island;
- Temporary trestles for jet grouting at the South Island;
- Temporary trestle for bridge construction at the North Shore;
- Mooring piles at the South Trestle (located at the South Island), North Island, and Willoughby Bay; and
- Installation and removal of piles for test pile program.

Pile installation methods will include impact and vibratory driving, jetting, and drilling with a down-the-hole (DTH) hammer. Pile removal techniques for temporary piles will include vibratory pile removal or cutting below the mud line. Installation of steel pipe piles could be 24-, 36-, or 42-inches (in) in diameter to support temporary work trestles, platforms, and moorings. Test piles would consist of 30-in square concrete or 54-in concrete cylinder piles. Only load test piles will be removed under this IHA. In-water pile installation using impact and vibratory driving, and drilling with a DTH hammer, and pile removal using a vibratory hammer, have the potential to harass marine mammals acoustically and could result in incidental takes of individual marine mammals. Jetting is not likely to result in take.

Dates and Duration

Work could occur at any point during the year, and will occur during the day. Pile installation may extend into

evening or nighttime hours as needed to accommodate pile installation requirements (*e.g.,* once pile driving begins—a pile will be driven to design tip elevation). The overall number of anticipated days of pile installation is 312, based on a 6-day work week for one year. Pile installation can occur at variable rates, from a few minutes to several hours per pile. The HRCP anticipate that 1 to 10 piles could be installed per day. In order to account for inefficiencies and delays, the HRCP have estimated an average installation rate of six piles per day for most components.

Specific Geographic Region

The HRBT is located in the waterway of Hampton Roads adjacent to the existing bridge and island structures of the HRBT in Virginia. Hampton Roads is located at the confluence of the James River, the Elizabeth River, the Nansemond River, Willoughby Bay, and the Chesapeake Bay (Figure 1). Hampton Roads is a wide marine channel that provides access to the Port of Virginia and several other deep water anchorages upstream of the project area (VDOT and Federal Highway Administration (FHWA) 2016). Navigational channels are maintained by the U. S. Army Corps of Engineers within Hampton Roads to provide transit to the many ports in the region.

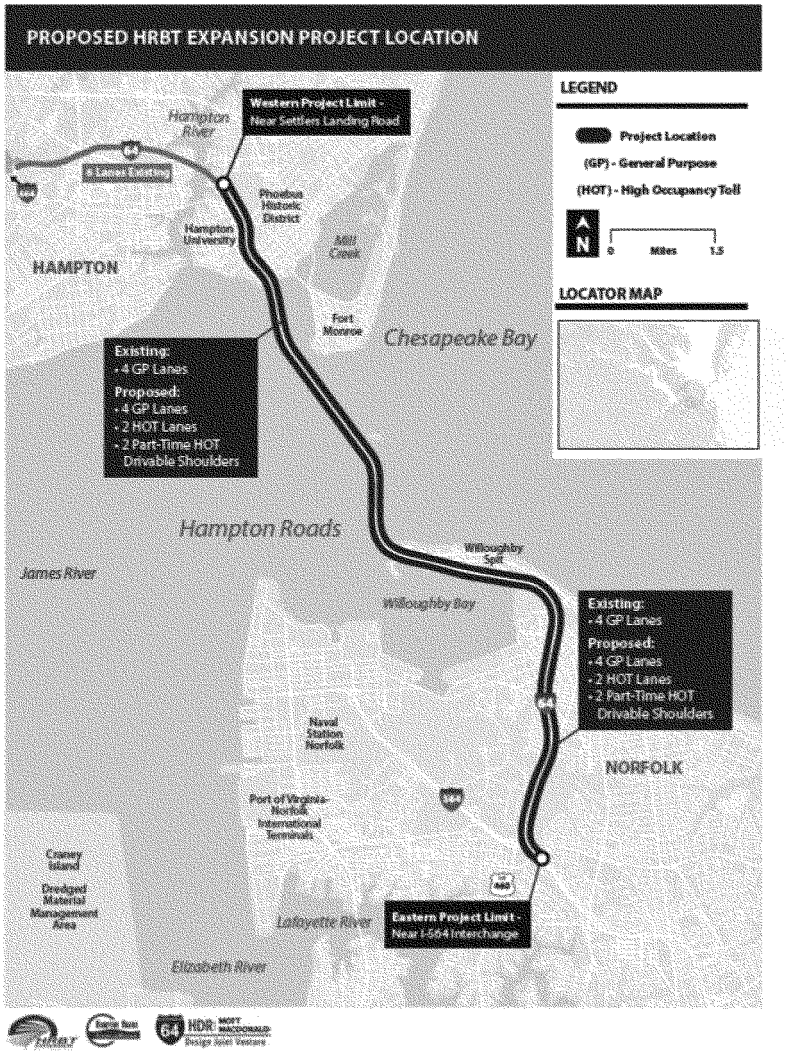

Figure 1. Project Area

Pile installation will occur in waters ranging in depth from less than 1 meter (m) (3.3 feet (ft)) near the shore to approximately 8 m (28 ft), depending on the structure and location. The majority of the piles will be in water depths of 3.6–4.6 m (12–15 ft).

Detailed Description of the Specific Activity

Three methods of pile installation are anticipated and expected to result in take of marine mammals. These include use of vibratory, impact, and DTH hammers. More than one installation method will be used within a day. Most piles will be installed using a combination of vibratory (ICE 416L or similar) and impact hammers (S35 or similar). Overall, steel pipe piles at the North Shore Work Trestle, Jet Grouting Trestle, and TBM Platform would be installed using the vibratory hammer approximately 80 percent of the time and impact hammer approximately 20 percent of the time, while all mooring piles and steel pipe piles at Conveyor Trestle would be installed using the

vibratory hammer approximately 90 percent and the impact hammer approximately 10 percent of the time. Depending on the location, the pile will be advanced using vibratory methods and then impact driven to final tip elevation. Where bearing layer sediments are deep, driving will be conducted using an impact hammer so that the structural capacity of the pile embedment can be verified. The pile installation methods used will depend on sediment depth and conditions at each pile location. Table 1 provides additional information on the pile driving operation including estimated pile driving times. The sum of the days of pile installation is greater than the anticipated number of days because more than one pile installation method will be used within a day.

Prior to installing steel pipe piles near shorelines protected with rock armor and/or rip rap (*e.g.,* South Island shorelines; North Shore shoreline), it will be necessary to temporarily shift the rock armoring that protects the shoreline to an adjacent area to allow for the installation of the piles. The rock armor should only be encountered at the shoreline and at relatively shallow depths below the mudline. The rock armor and/or rip rap will be moved and reinstalled near its original location following the completion of pile installation. Alternatively, the piles may be installed without moving the rock, by first drilling through the rock with a DTH hammer (*e.g.,* Berminghammer BH 80 drill or equivalent) to allow for the installation of the piles. It is estimated that a down-the-hole hammer will be used for approximately 1 to 2 hours per pile, when necessary. It is anticipated that approximately 5 percent of the North Shore Work Trestle piles, 10 percent of the Jet Grouting Trestle piles, 10 percent of the Conveyor Trestle piles, and 50 percent of the TBM Platform piles may require use of a down-the-hole hammer (Table 1).

Detailed descriptions of the project components for this IHA request are explained below.

Project Segments

The project design is divided into five segments (see also Figure 2) as follows:

- Segment 1a (Hampton) begins at the northern terminus of the Project in Hampton and ends at the north end of the north approach slabs for the north tunnel approach trestles. This segment has two interchanges and also includes improvements along Mallory Street to accommodate the bridge replacement over I–64. This segment covers approximately 1.2 miles along I–64;
- Segment 1b (North Trestle-Bridges) includes the new and replacement north tunnel approach trestles, including any approach slabs. This segment covers approximately 1 km (0.6 mi) along I–64;
- Segment 2a (Tunnel) includes the new bored tunnels, the tunnel approach structures, buildings, the North Island improvements for tunnel facilities, and South Island improvements. This segment covers approximately 2.9 km (1.8 mi) along I–64;
- Segment 3a (South Trestle-Bridge) includes the new South Trestle-Bridge and any bridge elements that interface with the South Island to the south end of the south abutments at Willoughby Spit. This segment covers approximately 1.93 km (1.2 mi) along I–64;
- Segment 3b (Willoughby Spit) continues from the south end of the south approach slabs for the south trestle and ends at the north end of the north approach slabs for the Willoughby Bay trestles. This segment includes a modified interchange connection to Bayville Street, and has a truck inspection station for the westbound tunnels. This segment covers approximately 1 km (0.6 mi) along I–64;
- Segment 3c (Willoughby Bay Trestle-Bridges) includes the entire structures over Willoughby Bay, from the north end of the north approach slabs on Willoughby Spit to the south end of south approach slabs near the 4th View Street interchange. This segment covers approximately 1.6 km (1.0 mi) along I–64;
- Segment 3d (4th View Street Interchange) continues from the Willoughby Trestle-Bridges south, leading to the north end of the north approach slabs of I–64 bridges over Mason Creek Road along mainline I–64. This segment covers approximately 1.6 km (1.0 mi) along I–64;
- Segment 4a (Norfolk-Navy) goes from the I–64 north end of the north approach slabs at Mason Creek Road to the north end of the north approach slabs at New Gate/Patrol Road. There are three interchange ramps in this segment: Westbound I–64 exit ramp to Bay Avenue, eastbound I–64 entrance ramp from Ocean Avenue, and westbound I–64 entrance ramp from Granby Street. The ramps in this segment are all on structure. This segment covers approximately 2.4 km (1.5 mi) along I–64; and
- Segment 5a (I–564 Interchange) starts from the north end of the north approach slab of the New Gate/Patrol Road Bridge to the southern Project Limit. This segment runs along the Navy property and includes an entrance ramp from Patrol Road, access ramps to and from the existing I–64 Express Lanes, ramps to and from I–564, and an eastbound I–64 entrance ramp from Little Creek Road. This segment covers approximately 1.93 km (1.2 mi) along I–64.

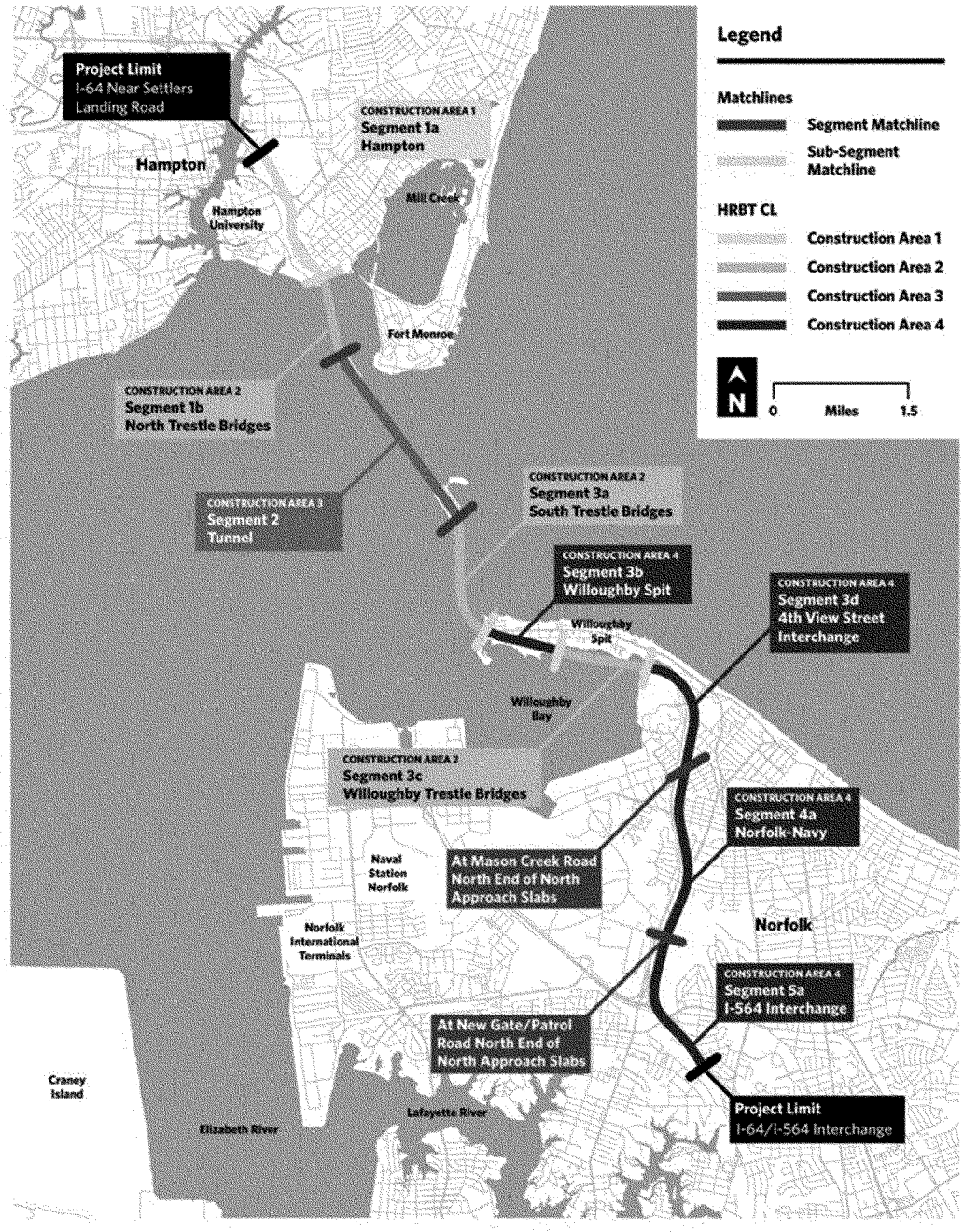

Figure 2. HRBT Expansion Project Design Segments

However, the only planned in-water marine construction activities that have potential to affect marine mammals and result in take would occur at the following locations in the following segments:

- North Trestle-Bridges (Segment 1b);
- Tunnel—North Island and South Island (Segment 2a);
- South Trestle-Bridge (Segment 3a); and
- Willoughby Bay Trestle-Bridges (Segment 3c).

Approximately, 1070 piles (of all sizes) would be installed (only some removed) under this IHA (Table 1). For 36-in steel piles, 698 piles would be installed. For 42-in steel piles, 257 piles would be installed. For 24-in piles, 66 piles would be installed. For 54-in concrete cylinder piles, 33 piles would be installed. For 24-in or 30-in concrete square piles, 16 piles would be installed. Removal would only occur for piles as part of the test pile program (Table 1).

Project Components That Are Likely To Result in Take of Marine Mammals

Tunnel Boring Machine (TBM) Platform at the South Island (Segment 2a)—The HRCP is constructing the temporary TBM Platform or ''quay'' at the South Island to allow for the delivery, unloading, and assembly of the TBM components from barges to the Island. The large TBM components will be delivered by barge and then transferred to the platform using a Self-

Propelled Modular Transport, crawler crane, sheerleg crane and/or other suitable equipment. The TBM Platform will also allow barge delivery and storage of concrete tunnel segments as the boring operation progresses. The concrete tunnel segments will be offloaded and moved using a combination of crawler cranes and a gantry crane installed on the TBM Platform. The tunnel segments will be stored on the platform prior to delivery to the tunnel shaft for installation.

The TBM Platform is a steel structure founded on (216) 36-in diameter steel piles, with an overall area of approximately 0.40 acres (approximately 50.6 m x 2.7 m). The piles will be installed using a combination of vibratory and impact hammers except along the perimeter where down-the-hole hammering may be needed to install piles through the rock armor stone. The piles are 47 m (154 ft) long and will have an average embedded length of approximately 42.7 m (140 ft). Table 1 provides additional information on the pile driving operation including estimated pile installation times and number of strikes necessary to drive a pile to completion.

The superstructure of the platform is set on top of the piles and consists of transverse and longitudinal beams below a 13/16-in-thick plate set on top of the beams. Rail beams will be installed on top of the plate and will support the gantry crane. A concrete slab may be placed on top of the steel plates or timber trusses.

Dolphins will be installed along the shoreline of the South Island in the areas adjacent to the TBM Platform. Each dolphin will consist of 36-in steel piles and will be installed with a combination of vibratory and impact hammers.

Conveyor Trestle at the South Island (Segment 2a)—Tunnel boring spoils and other related materials will be moved between the South Island and barges via a conveyor belt and other equipment throughout tunnel boring. The Conveyor Trestle will also be used for maintenance and mooring of barges and vessels carrying TBM materials and other project related materials.

The Conveyor Trestle is a steel structure founded on (84) 36-in diameter steel piles, with an overall area of approximately 0.42 acres (approximately 205 m x 8 m). The piles will be installed using a combination of vibratory (International Construction Equipment (ICE) 416L or similar) and impact hammers (S35 or similar). The piles are approximately 42.7 m (140 ft) long and will have an average embedded length of approximately 30.5 m (100 ft). Table 1 provides additional information on the pile driving operation including estimated pile driving times and number of strikes necessary to drive a pile to completion.

Additionally, mooring dolphins will be installed along the outside edge of the Conveyor Trestle. Each dolphin will consist of 36-in steel piles and will be installed with a combination of vibratory and impact hammers.

Temporary Trestle for Bridge Construction at the North Shore Work Trestle (Segment 1b)—The temporary North Shore Work Trestle will support construction of the permanent eastbound North Trestle Bridge in the shallow water (<1.2–1.8 m (4–6 ft) MLW) closer to the North Shore, avoiding the need to dredge or deepen this area (which otherwise would have been required for barge access) and minimizing potential impacts to the adjacent submerged aquatic vegetation (SAV). The temporary North Shore Work Trestle is a steel structure founded on 194 36-in diameter steel piles with 9–12 m (30–40 ft) spans sized to accommodate a 300-ton crane. The main portion of the work trestle will be approximately 345 m long x 14 m wide (1,130 ft long by 45 ft wide), with three approximately 24.4 m x 9 m (80 ft x 30 ft) fingers and an additional landing area approximately 45.7 m x 14 m (150 ft x 45 ft), for a total overall approximate area of 0.006 km² (1.49 acres).

Dolphins will be installed at the southern end and along the outside edge of the work trestle. Each dolphin will consist of 24-in steel piles. In addition, 42-in steel pipe piles will be installed along the outer edge of the work trestle to provide additional single mooring points for barges and vessels delivering material and accessing the trestle. The mooring dolphin piles and the single mooring point piles will be installed using a vibratory hammer.

Moorings at the North Island Expansion (Segment 2a)—Temporary moorings will be installed along the perimeter of the North Island Expansion area to support the construction of the Island expansion. Eighty 42-in steel pipe piles will be installed to provide mooring points for barges and vessels. The mooring point piles will be installed using a vibratory hammer.

Temporary Trestles for Jet Grouting at the South Island (Segment 2a)—Unconsolidated soil conditions at the western edge of the South Island—along the centerline and depth of the planned tunnel alignment—require ground improvements to allow tunnel boring to proceed safely and efficiently. Ground improvements will be achieved using deep injection or jet grouting to stabilize and consolidate the sediments along the planned tunnel alignment and tunnel depth.

Two temporary work trestles will be constructed along either side of the planned tunnel alignment to support jet grouting activity. Each trestle will be approximately 12.2 m (40 ft) wide and extend approximately 305 m (1,000 ft) west of the South Island shoreline, for a total overall approximate area of 0.007 km² (1.84 acres). Two temporary Jet Grouting Trestles will be constructed, each will be founded on (102) 36-in diameter steel piles (a total of 204 steel piles) with 7.6 m (25 ft) +/− spans sized to accommodate a 35-ton drill rig and support equipment.

Moorings at the South Trestle (Segment 3a)—Temporary moorings will be installed in the area of the South Trestle to support the construction of temporary work trestles and permanent trestle bridges. Six mooring dolphins will be installed and each will consist of (3) 24-in steel piles for a total of (18) 24-in piles. An additional (41) 42-in steel pipe piles will be installed along what will become the outer edge of the work trestle to provide additional single mooring points for barges and vessels delivering material and accessing the trestle. The mooring dolphin piles and the single mooring point piles will be installed using a vibratory hammer.

Mooring at Willoughby Bay (Segment 3c)—Temporary moorings will be installed in Willoughby Bay to support the construction of temporary work trestles and permanent trestle bridges. Six mooring dolphins will be installed—each consisting of (3) 24-in steel piles. An additional (50) 42-in steel pipe piles will be installed along what will become the outer edge of the work trestle to provide additional single mooring points for barges and vessels delivering material and accessing the trestle. The mooring dolphin piles and the single mooring point piles will be installed using a vibratory hammer. A total of 68 steel pipe piles will be driven, (50) 42-in piles and (18) 24-in piles.

An additional (50) 42-in steel pipe piles will be installed in Willoughby Bay to create moorings for additional staging of barges and safe haven for vessels in the event of severe weather. The moorings will be configured as (2) 2,000-ft long lines with a 42-in mooring pile every 24.4 m (80 ft). The piles will be installed using a vibratory hammer.

Installation and Removal of Piles for Test Pile Program (Segments 1b, 2a, 3a, and 3c)

The HRCP will perform limited pile load testing to confirm permanent

concrete pile design at the start of the project. Test piles will be installed at the North Trestle (1 load test pile, 10 production test piles), South Trestle (2 load test piles, 20 production test piles) and at Willoughby Bay (1 load test pile, 15 production test piles)—test piles will be 30-in square concrete or 54-in concrete cylinder piles (see Table 1). Test piles will be set using temporary steel templates designed to support and position the test pile while being driven. Concrete test piles will be driven using an impact hammer. Test pile templates will be positioned and held in place using spuds (one at each corner of the template). The test pile templates and pile load test frame and supports will be installed using a vibratory hammer and proofed using an impact hammer to confirm sufficient load capacity. Test piles will be cut below the mudline and removed. The temporary test pile templates and load test frame and supports will be removed using a vibratory hammer.

TABLE 1—PILE DRIVING AND REMOVAL ASSOCIATED WITH THE HRBT PROJECT THAT ARE LIKELY TO RESULT IN THE TAKE OF MARINE MAMMALS

Project component	Pile size)/ type and material	Total number of piles	Embedment length (feet)	Number of piles down-the-hole	Average down-the-hole duration per pile (minutes)	Number of piles vibrated/ hammered	Average vibratory duration per pile (minutes)	Approximate number of impact strikes per pile	Number of piles per day per hammer	Estimated total number of hours of installation	Number of days of installation
North Trestle (Segment 1b)											
North Shore Work Trestle.	36-in Steel Pipe	194	100	10	120	184	50	40	3	162	65
Moorings	42-in Steel Pipe	36	60			36	30		6	18	6
Moorings	24-in Steel Pipe	30	60			30	30		6	15	5
Test Pile Program (Load Test Piles).	54-in Concrete Cylinder Pipe.	1	140			1		2,100	1	2	1
Test Pile Program (Production Piles).	54-in Concrete Cylinder Pipe.	10	140			10		2,100	1	20	10
North Island (Segment 2a)											
Moorings	42-in Steel Pipe	80	60			80	30		6	40	13
Willoughby Bay (Segment 3c)											
Moorings	42-in Steel Pipe	50	60			50	30		6	25	9
Moorings	24-in Steel Pipe	18	60			18	30		6	9	3
Moorings (Safe Haven).	42-in Steel Pipe	50	60			50	30		6	25	9
Test Pile Program (Load Test Piles).	24-in or 30-in Concrete Square Pipe.	1	140			1		2,100	1	2	1
Test Pile Program (Production Piles).	24-in or 30-in Concrete Square Pipe.	15	140			15		2,100	1	30	15
South Trestle (Segment 3a)											
Moorings	42-in Steel Pipe	41	60			41	30		6	21	7
Moorings	24-in Steel Pipe	18	60			18	30		6	9	3
Test Pile Program (Load Test Piles).	54-in Concrete Cylinder Pipe.	2	140			2		2,100	1	4	2
Test Pile Program (Production Piles).	54-in Concrete Cylinder Pipe.	20	140			20		2,100	1	40	20
South Island (Segment 2a)											
TBM Platform	36-in Steel Pipe	216	140	108	120	108	60	60	2	216	108
Jet Grouting Trestle	36-in Steel Pipe	204	100	20	120	184	50	40	3	170	68
Conveyor Trestle	36-in Steel Pipe	84	100	8	120	76	50	40	3	70	28
Total		1,070									

Planned in-water marine construction activities that have potential to affect marine mammals will occur at the following locations in Construction Areas 2 and 3 (Figure 2):

- North Trestle-Bridges (Segment 1b);
- Tunnel—North Island and South Island (Segment 2a);
- South Trestle-Bridge (Segment 3a); and
- Willoughby Bay Trestle-Bridges (Segment 3c).

Mitigation, monitoring, and reporting measures are described in detail later in this document (please see Mitigation and Monitoring and Reporting section).

A detailed description of the planned project is provided in the **Federal Register** notice for the proposed IHA (85 FR 16194; March 20, 2020). Since that time, no changes have been made to the planned construction activities. Therefore, a detailed description is not provided here. Please refer to that **Federal Register** notice for the description of the specific activity.

Comments and Responses

A notice of NMFS's proposal to issue an IHA to HRCP was published in the **Federal Register** on March 20, 2020 (85 FR 16194). That notice described, in detail, the project activity, the marine mammal species that may be affected by the activity, and the anticipated effects on marine mammals. During the 30-day public comment period, NMFS received comments from the Marine Mammal Commission (Commission). The Commission's letter is available online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities.* Please see the letter for full details of the recommendations and associated rationale.

Comment: The Commission commented that NMFS used incorrect proxy source levels for impact installation of 30- and 54-in concrete piles based on MacGillivray *et al.* (2007) and therefore underestimated the various Level A and B harassment zones noted in Tables 11 and 12 of the **Federal Register** notice of proposed IHA and Tables 2 and 3 in the draft authorization. The Commission said that NMFS omitted the fact that source levels for impact installation of 36-in

concrete piles were used as a proxy for the 30- and 54-in concrete piles in the **Federal Register** notice (85 FR 16194; March 20, 2020).

Response: NMFS revised the source levels for 30- and 54-in concrete piles to 193 dB SPLpeak (peak sound pressure level), 187 dB SPLrms (sound pressure level, root mean square), and 177 decibels (dB) SEL (sound exposure level) and therefore revised the Level A and Level B harassment zones accordingly. However, the source level of 36-in concrete piles were not used as a proxy for the 30- and 54-in concrete piles.

Comment: The Commission stated that NMFS incorrectly noted that the source levels for unattenuated and attenuated impact installation of 36-in piles originated from Chesapeake Tunnel Joint Venture (CTJV; 2018) and Department of the Navy (2015) rather than California Department of Transportation (Caltrans; 2015) in Table 5 of the **Federal Register** notice (85 FR 16194; March 20, 2020).

Response: NMFS recognizes this error and has made the correction in this notice.

Comment: The Commission commented that NMFS indicated that three or more hammers could be used simultaneously in the proposed IHA (85 FR 16194; March 20, 2020), but did not specify what the resulting source levels would be if up to four vibratory hammers were used, what the Level B harassment zone would be for the combined source level when four hammers are used, whether multiple hammers of the same type would be used at a given site, or what the worst-case scenario would be. The Commission stated that extents of the Level B harassment zones, similar to Table 3 in the draft authorization, must be specified to ensure the appropriate zones are used to extrapolate the number of Level B harassment takes during simultaneous use of vibratory hammers, particularly since the monitoring zones are much smaller than the Level B harassment zones.

Response: NMFS did provide the worst-case scenarios for when multiple vibratory hammers (3) are used for 42-in steel piles. This was described in Table 7 and 11. Table 11 assumes the max number of 42-in steel piles that could be driven in a given day by multiple impact hammers for two scenarios, three piles or two piles driven simultaneously. It is not anticipated that four hammers would be used simultaneously so the wording ''or more'' was an error and has been omitted from the final notice. NMFS did not provide what the resulting source levels would be for four hammers as the applicant indicated three would be the maximum used. Therefore, no changes were made in Table 13 for the calculated distances for Level B harassment in this notice or Table 3 of the final IHA.

Comment: The Commission recommended using 162 rather than 161 dB re 1 μPa rms (1 micro Pascal, root mean square) at 10 m for vibratory installation of 24-in piles and to re-estimate the Level A and B harassment zones accordingly.

Response: NMFS believes that 161 dB re 1 μPa rms remains appropriate for use in this circumstance and does not adopt the recommendation to re-estimate the Level A and B harassment zones. The source level is within ±2 dB of the Commission's recommended source level.

Comment: The Commission recommends that NMFS (1) have its experts in underwater acoustics and bioacoustics review and finalize in the next month its recommended proxy source levels for impact pile driving of the various pile types and sizes, (2) compile and analyze the source level data for vibratory pile driving of the various pile types and sizes in the near term, and (3) ensure action proponents use consistent and appropriate proxy source levels in all future rulemakings and proposed IHA. If a subset of source level data is currently available (*i.e.,* vibratory pile driving of 24-in steel piles), those data should be reviewed immediately.

Response: NMFS concurs with this recommendation and has prioritized this effort. NMFS will conclude the process as soon as possible.

Comment: The Commission recommends that, for all authorizations involving DTH drilling including HRCP's final IHA and proposed rulemaking, NMFS use (1) source level data from Denes *et al.* (2019), the Level A harassment thresholds for impulsive sources, and the relevant expected operating parameters to estimate the extents of the Level A harassment zones and (2) source level data from Denes *et al.* (2016) and its Level B harassment threshold of 120-dB re 1 μPa rms for continuous sources to estimate the extents of the Level B harassment zones. If NMFS does not revise the Level B harassment zones based on a more appropriate proxy source level and the Level B harassment thresholds for continuous sources, the Commission recommends that NMFS justify its decision not consider a DTH hammer to be an impulsive, continuous sound source.

Response: NMFS did use the source level data from Denes *et al.* (2019) and its Level A harassment thresholds for impulsive sources, and the relevant expected operating parameters to estimate the extents of the Level A harassment zones for DTH drilling in the proposed IHA (85 FR 16194; March 20, 2020). For the calculation of the Level B harassment zone, NMFS concurs with the recommendation for this IHA and made the change using the threshold of 120-dB re 1 μPa rms for continuous sources to estimate the extents of the Level B harassment zones using source level data from Denes *et al.* (2016). However, NMFS does not agree that using Denes *et al.,* 2019 as a source level is necessarily appropriate for ''all authorizations'' and will evaluate the best source level to use based on the operational details of future projects and the source level data available at that time.

Comment: The Commission commented on the assumptions used by NMFS regarding the efficacy of bubble curtains and NMFS adoption of a standard 7 dB source level reduction when bubble curtains are use. The Commission recommends that NMFS (1) consult with acousticians, including those at University of Washington, Applied Physics Lab, regarding the appropriate source level reduction factor to use to minimize near-field (<100 m) and far-field (>100 m) effects on marine mammals or (2) use the data NMFS has compiled regarding source level reductions at 10 m for near-field effects and assume no source level reduction for far-field effects for all relevant incidental take authorizations. The Commission has made this recommendation, with supporting justification and responses to NMFS's previous responses, since mid-December 2019—NMFS has yet to address it. NMFS has directed the Commission to NMFS's response from before the Commission made this specific recommendation and to a **Federal Register** notice that does not even pertain to NMFS. The Commission explicitly requests a detailed response to both parts of this recommendation if NMFS does not follow or adopt it, as required under section 202(d) of the MMPA.

Response: NMFS disagrees with the Commission regarding this issue, and does not adopt the recommendation. The Commission has raised this concern before and NMFS refers readers to our full response, which may be found in a previous notice of issuance of an IHA (84 FR 64833, November 25, 2019). NMFS will additionally provide a detailed explanation of its decision

within 120 days, as required by section 202(d) of the MMPA.

Comment: The Commission recommends that NMFS require HRCP to (1) conduct hydroacoustic monitoring (a) during impact installation of 54-in concrete piles, (b) when multiple vibratory hammers are used simultaneously and multiple DTH hammers are used simultaneously, (c) when only one DTH hammer is used, and (d) when 36-in steel piles are installed both with and without the bubble curtain, (2) ensure that signal processing is conducted appropriately 28 for DTH drilling, and (3) adjust the Level A and B harassment zones accordingly.

Response: The Commission states that it is ''apparent'' that HRCP ''should be'' conducting hydroacoustic monitoring, but fails to justify the necessity of this recommended requirement, and does not address the practicability of such a requirement. The Commission's recommendation is based on the fact that source levels for 36-in piles are used as a proxy for 54-in piles, as well as the following assertions: (1) Source levels for DTH drilling have yet to be analyzed appropriately and (2) the presumed 7-dB source level reduction associated with use of a bubble curtain has yet to be proven. In addition, the Commission states that the extents of the Level B harassment zones ''have not been substantiated.'' NMFS disagrees with these points and does not adopt the recommendation. It is common practice to use the best available proxy data when data are not available for a particular pile type or size and, while additional data may be useful, the use of a proxy does not alone justify a requirement to conduct hydroacoustic monitoring. Moreover, the Commission's assumption that source levels are underestimated does not ultimately lead to a conclusion that the evaluation of potential effects is similarly underestimated, given the simple and conservative assumptions made in relation to expected transmission loss. The source levels for DTH drilling are provided through a hydroacoustic monitoring study for a similar project at a nearby location. The Commission does not further explain its reasoning on this point. The assumed 7-dB source level reduction attributed to use of the bubble curtain was developed as a generic standard through review of a large amount of data relating to use of bubble curtains and, therefore, the Commission's suggestion that this reduction ''has yet to be proven'' is incorrect. Further, the suggestion to conduct this type of testing is inconsistent with the Commission's own insistence that no reduction should be applied in any circumstances. Finally, the suggestion that the size of the Level B harassment zones has ''yet to be substantiated'' is nonsensical, as the project has yet to begin, and is inconsistent with typical practice. The vast majority of projects proceed with assumptions regarding zone size, and the Commission does not adequately explain why the cost and logistical considerations associated with hydroacoustic monitoring are warranted in this case to ''substantiate'' the zone sizes.

The Commission points out that the HRCP plans to conduct more than 5 years of activities. This IHA only pertains to one year of those activities. The applicant has requested a rulemaking/Letter of Authorization for another 5 years of work to complete the overall project. NMFS will consider the potential need for hydroacoustic monitoring with the applicant as part of the rulemaking/Letter of Authorization process.

Comment: The Commission noted its understanding that NMFS has formed an internal committee to address perceived issues with estimating Level A harassment zone sizes and is consulting with external acousticians and modelers as well. In the absence of relevant recovery time data for marine mammals, the Commission continues to believe that animat modeling that considers various operational and animal scenarios should be used to inform the appropriate accumulation time and could be incorporated into NMFS's user spreadsheet that currently estimates the Level A harassment zones. The Commission recommends that NMFS continue to make this issue a priority to resolve in the near future and consider incorporating animat modeling into its user spreadsheet.

Response: NMFS concurs with this recommendation and has prioritized the issue.

Comment: The Commission recommends that NMFS increase the number of takes from 261 to at least 3,588 takes of harbor seals, equating to at least 753 Level A harassment and 2,835 Level B harassment takes of harbor seals.

Response: NMFS disagrees with the Commission's recommendation and does not adopt it. In the proposed IHA, NMFS proposed 55 takes by Level A harassment and 206 takes by Level B harassment. During the comment period, NMFS informally discussed with the Commission increasing harbor seals takes using 8 seals/day multiplied by 156 days for a total of 1,248 takes. The Commission did not indicate any opposition to this new estimate. That said, NMFS has determined that it will use the average 5-year daily count of 13.6 seals (Jones *et al.,* 2020) in its take estimate to be more conservative than the proposed IHA as fully described in the Estimated Take section.

Comment: The Commission recommends that NMFS use the Chesapeake Bay density of 1.38 dolphins/square kilometer (km^2) from Engelhaupt *et al.* (2016) and (1) the Level B harassment ensonified area of 131.4 km^2 west of the HRBT and 312 days of activities, (2) the Level B harassment ensonified area of 221.46 km^2 for vibratory installation of 42-in steel piles at the South Trestle and 7 days of activities, (3) the Level B harassment ensonified area associated of 27.65 km^2 for vibratory installation of 24-in steel piles at the South Trestle and 3 days of activities, and (4) the Level B harassment ensonified area associated of 0.87 km^2 for impact installation of 54-in concrete piles at the South Trestle and 22 days of activities to increase the numbers of Level B harassment takes of bottlenose dolphins from 6,343 to 58,856.

Response: NMFS has accepted the Commission's recommendation and will use the dolphin density of 1.38 dolphins/km^2 from Engelhaupt *et al.* (2016) to estimate take of bottlenose dolphins as described in the Estimated Take section. However, NMFS notes the Commission's statement that the use of bottlenose dolphin data in the notice of proposed IHA ''appears to be an attempt to reduce the number of takes rather than an effort to use the best available data.'' The Commission's statement is both inappropriate and incorrect, and NMFS strongly objects to the Commission's attempt to interpret intent.

Comment: The Commission recommends that NMFS ensure HRCP keeps a running tally of the total takes, based on observed and extrapolated takes, for Level A and B harassment.

Response: We agree that HRCP must ensure they do not exceed authorized takes, but do not concur with the recommendation. NMFS is not responsible for ensuring that HRCP does not operate in violation of an issued IHA.

Comment: The Commission recommends that NMFS require HRCP to use at least (1) one protected species observer (PSO) to monitor the shut-down zones for each hammer that is in use at each site, (2) one PSO to monitor the Level B harassment zones during vibratory installation of piles at Willoughby Bay and to be located near the entrance of the Bay to observe

animals entering and exiting the Level B harassment zone, (3) one PSO to monitor the Level A and B harassment zones during impact installation of 30- and 54-in piles at North and South Trestle, (4) three PSOs to monitor the Level B harassment zones during vibratory pile driving of 24-in piles at South Trestle, one PSO on the Hampton side and one on the Norfolk side of Chesapeake Bay to the east of HRBT and one PSO on the Hampton side to the west of HRBT, (5) four PSOs to monitor the Level B harassment zones during vibratory pile driving of 42-in piles at South Trestle, one on the Hampton side and one on the Norfolk side of Chesapeake Bay to the east of HRBT and one on the Hampton side and one on the Norfolk side to the west of HRBT, and (6) four PSOs to monitor the Level B harassment zones during vibratory pile driving and/or DTH drilling of 36- and 42-in piles and during simultaneous use of multiple hammers at North Trestle, North Island, and South Island, two on the Hampton side and two on the Norfolk side to the west of HRBT.

Response: NMFS appreciates the Commission's recommendations for PSO locations. As previously described in the proposed IHA, monitoring locations will provide an unobstructed view of all water within the shutdown zone and as much of the Level B harassment zone as possible for pile driving activities. However, after further discussion with the applicant, HRCP will station between one and four PSOs at locations offering the best available views of the Level A and Level B monitoring zones during in-water pile driving at the North Trestle, North Island, South Trestle, and South Island. When and where able, as determined by the PSO or Lead PSO when multiple observers are required, Level A and Level B harassment zones may be monitored for multiple pile driving locations by the same individual PSO. HRCP will be required to station between one and two PSOs at locations offering the best available views of the Level A and Level B monitoring zones during in-water pile driving at Willoughby Bay.

Comment: The Commission recommends that NMFS include in (1) section 3 of the final authorization the requirement that HRCP conduct pile-driving activities during daylight hours only and (2) section 4 of the final authorization the requirement that, if the entire shut-down zone(s) is not visible due to fog or heavy rain, HRCP delay or cease pile-driving and -removal activities until the zone(s) is visible.

Response: NMFS does not concur and does not adopt the recommendation. The work is anticipated to be conducted during daylight hours. However, if work needs to extend into the night, work may only be conducted under conditions where there is full visibility of the shutdown zone or where stopping ongoing work would otherwise create an unsafe work condition. In addition, the IHA requires that work must be conducted during conditions of good visibility. If poor environmental conditions restrict full visibility of the shutdown zone, pile installation must be delayed. Poor visibility implies a condition that would occur under fog or heavy rain.

Comment: The Commission recommends that NMFS include in all draft and final IHA the explicit requirements to cease activities if a marine mammal is injured or killed during the specified activities until NMFS reviews the circumstances involving any injury or death that is likely attributable to the activities and determines what additional measures are necessary to minimize additional injuries or deaths.

Response: NMFS concurs with the Commission's recommendation as it relates to this IHA and has added the referenced language to the Monitoring and Reporting section of this notice and the Reporting section of the issued IHA. We will continue to evaluate inclusion of this language in future IHAs.

Comment: The Commission reiterates programmatic recommendations regarding NMFS' potential use of the renewal mechanism for one-year IHAs.

Response: NMFS does not agree with the Commission and, therefore, does not adopt the Commission's recommendation. NMFS will provide a detailed explanation of its decision within 120 days, as required by section 202(d) of the MMPA.

Comment: The Commission recommends that NMFS (1) publish a revised proposed authorization for public comment, (2) consult with HRCP regarding the numerous issues raised in this letter and direct the applicant to revise its letter of authorization application accordingly, and (3) refrain from publishing for public comment proposed IHAs and proposed rules based on underlying applications that contain omissions, errors, and inconsistencies and instead return such applications to action proponents as incomplete.

Response: NMFS does not agree with the Commission and does not adopt the recommendation. NMFS disagrees that the information presented in association with the proposed IHA was insufficient to facilitate public review and comment, as the Commission states. What the Commission claims are ''omissions, errors, and inconsistencies'' are, for the most part, differences of opinion on how available data should be applied to our analysis and, in each case, we have presented reasons why we disagree with specific recommendations. If we did agree that there actually was an error or that the Commission's logic is more appropriate to implement, we have made the recommended changes. We note many of the recommendations by the Commission are detail-oriented and, in NMFS' view, do not provide additional conservation value or meaningfully influence any of the analyses underlying the necessary findings. NMFS strongly disagrees with the Commission's suggestion that NMFS' negligible impact and least practicable adverse impact determinations may be invalid, and we note that the Commission does not provide any information supporting this comment, whether NMFS retained the take numbers and mitigation requirements from the proposed IHA or adopted those recommended by the Commission. Overall, there are no substantial changes or new information that would lead us to reach any other conclusions regarding the impact to marine mammals. For these reasons, NMFS is not republishing a notice of proposed IHA.

Changes From the Proposed IHA to the Final IHA

Changes were made to the source level for 30- and 54-in concrete piles during impact pile driving. Therefore, Level A and Level B harassment zones were recalculated and corrected in Tables 11 and 12 and in the final authorization. The Level B harassment zone was also recalculated for DTH drilling for 36-in piles, reflecting use of the continuous noise, 120-dB threshold. Appropriate corrections were made to Table 12 and in the final authorization. Changes to the estimated take numbers for harbor seals and bottlenose dolphins were made, as recommended by the Commission. For mitigation and monitoring, clarification of the timing of the work as well as PSO locations were also made.

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history, of the potentially affected species. Additional information regarding population trends and threats may be found in NMFS's Stock Assessment Reports (SARs; *https://*

www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments) and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's website (*https://www.fisheries.noaa.gov/find-species*).

Table 2 lists all species or stocks for which take is expected and authorized for this action, and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2019). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS's SARs). While no mortality is anticipated or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS's stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS's United States Atlantic and Gulf of Mexico Marine Mammal SARs. All values presented in Table 2 are the most recent available at the time of publication and are available in the draft 2019 SARs (*https://www.fisheries.noaa.gov/national/marine-mammal-protection/draft-marine-mammal-stock-assessment-reports*).

TABLE 2—MARINE MAMMAL SPECIES LIKELY TO OCCUR NEAR THE PROJECT AREA

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR	Annual M/SI [3]
Order Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Balaenopteridae (rorquals):						
Humpback whale [4]	*Megaptera novaeangliae*	Gulf of Maine	-,-; N	896 (.42; 896; 2012)	14.6	9.7
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Bottlenose dolphin	*Tursiops spp.*	Western North Atlantic (WNA) Coastal, Northern Migratory.	-,-; Y	6,639 (0.41; 4,759; 2011)	48	6.1–13.2
		WNA Coastal, Southern Migratory.	-,-; Y	3,751 (0.06; 2,353; 2011)	23	0–14.3
		Northern North Carolina Estuarine System (NNCES).	-,-; Y	823 (0.06; 782; 2013)	7.8	0.8–18.2
Family Phocoenidae (porpoises):						
Harbor porpoise	*Phocoena phocoena*	Gulf of Maine/Bay of Fundy	-, -; N	79,833 (0.32; 61,415; 2011)	706	256
Order Carnivora—Superfamily Pinnipedia						
Family Phocidae (earless seals):						
Harbor seal	*Phoca vitulina*	WNA	-; N	75,834 (0.1; 66,884, 2012)	2,006	345
Gray seal	*Halichoerus grypus*	WNA	-; N	27,131 (0.19, 23,158, 2016)	1,359	5,688

[1] Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[2] NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports.* CV is coefficient of variation; Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable.

[3] These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual M/SI often cannot be determined precisely and is in some cases presented as a minimum value or range. A CV associated with estimated mortality due to commercial fisheries is presented in some cases.

[4] 2018 U.S. Atlantic SAR for the Gulf of Maine feeding population lists a current abundance estimate of 896 individuals. However, we note that the estimate is defined on the basis of feeding location alone (*i.e.,* Gulf of Maine) and is therefore likely an underestimate.

As indicated above, all five species (with seven managed stocks) in Table 2, temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur, and therefore authorized. All species that could potentially occur in the planned project area are included in Table 3–1 of the application. While North Atlantic right whales (*Eubalaena glacialis*), minke whales (*Balaenoptera acutorostrata acutorostrata*), and fin whales (*Balaenoptera physalus*) have been documented in the area, the temporal and/or spatial occurrence of these whales is such that take is not expected to occur, and they are not discussed further. Detailed descriptions of marine mammals in the project area were provided in the **Federal Register** notice for the proposed IHA (85 FR 16194; March 20, 2020).

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be

divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 dB threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in Table 3.

TABLE 3—MARINE MAMMAL HEARING GROUPS

[NMFS, 2018]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, *Kogia,* river dolphins, cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	275 Hz to 160 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 39 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.* 2007) and PW pinniped (approximation).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information. Five marine mammal species (three cetacean and two phocid pinniped) have the reasonable potential to co-occur with the planned survey activities. Please refer to Table 2. Of the cetacean species that may be present, one is classified as low-frequency (humpback whale), one is classified as mid-frequency (bottlenose dolphin) and one is classified as high-frequency (harbor porpoise).

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

The effects from underwater noise from the planned pile driving and removal activities have the potential to result in Level A and Level B harassment of marine mammals in the vicinity of the project area. The **Federal Register** notice for the proposed IHA (85 FR 16194; March 20, 2020) included a discussion of the effects of anthropogenic noise on marine mammals and their habitat, therefore that information is not repeated here; please refer to that **Federal Register** notice (85 FR 16194; March 20, 2020) for that information.

Estimated Take

This section provides an estimate of the number of incidental takes authorized through this IHA, which will inform both NMFS' consideration of ''small numbers'' and the negligible impact determinations.

Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines ''harassment'' as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Take of marine mammals incidental to HRCP's pile driving and removal activities could occur by Level A and Level B harassment, as pile driving has the potential to result in disruption of behavioral patterns for individual marine mammals. The planned mitigation and monitoring measures are expected to minimize the severity of such taking to the extent practicable. As described previously, no mortality is anticipated or authorized for this activity. Below we describe how the take is estimated.

Generally speaking, we estimate take by considering: (1) Acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) and the number of days of activities. We note that while these basic factors can contribute to a basic calculation to provide an initial prediction of takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the authorized take estimates for the IHA.

Acoustic Thresholds

Using the best available science, NMFS has developed acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur permanent threshold shift (PTS) of some degree (equated to Level A harassment).

Level B Harassment—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (*e.g.,* frequency, predictability, duty cycle), the environment (*e.g.,* bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Southall *et al.,* 2007, Ellison *et al.,* 2012). Based on what the available science indicates and the

practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 μPa (rms) for continuous (*e.g.,* vibratory pile-driving, drilling) and above 160 dB re 1 μPa (rms) for non-explosive impulsive (*e.g.,* impact pile driving seismic airguns) or intermittent (*e.g.,* scientific sonar) sources. The planned activities include the use of continuous, non-impulsive (vibratory pile driving) and impulsive (impact pile driving) sources and therefore, the 120 and 160 dB re 1 μPa (rms) are applicable. The DTH hammer is considered a continuous noise source for purposes of evaluating potential behavioral impacts.

Level A Harassment—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise. The technical guidance identifies the received levels, or thresholds, above which individual marine mammals are predicted to experience changes in their hearing sensitivity for all underwater anthropogenic sound sources, and reflects the best available science on the potential for noise to affect auditory sensitivity by:

- Dividing sound sources into two groups (*i.e.,* impulsive and non-impulsive) based on their potential to affect hearing sensitivity;
- Choosing metrics that best address the impacts of noise on hearing sensitivity, *i.e.,* sound pressure level (peak SPL) and sound exposure level (SEL) (also accounts for duration of exposure); and
- Dividing marine mammals into hearing groups and developing auditory weighting functions based on the science supporting that not all marine mammals hear and use sound in the same manner.

These thresholds were developed by compiling and synthesizing the best available science, and are provided in Table 4 below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS 2018 Technical Guidance, which may be accessed at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technicalguidance.* The planned activity includes the use of impulsive (impact pile driving) and non-impulsive (vibratory pile driving) sources. The DTH hammer is considered an impulsive noise source for purposes of evaluating potential auditory impacts.

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset acoustic thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{pk,flat}$: 219 dB; $L_{E,LF,24h}$: 183 dB	*Cell 2:* $L_{E,LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{pk,flat}$: 230 dB; $L_{E,MF,24h}$: 185 dB	*Cell 4:* $L_{E,MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{pk,flat}$: 202 dB; $L_{E,HF,24h}$: 155 dB	*Cell 6:* $L_{E,HF,24h}$: 173 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{pk,flat}$: 218 dB; $L_{E,PW,24h}$: 185 dB	*Cell 8:* $L_{E,PW,24h}$: 201 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{pk,flat}$: 232 dB; $L_{E,OW,24h}$: 203 dB	*Cell 10:* $L_{E,OW,24h}$: 219 dB.

* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.

Note: Peak sound pressure (L_{pk}) has a reference value of 1 μPa, and cumulative sound exposure level (L_E) has a reference value of 1μPa²s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that will feed into identifying the area ensonified above the acoustic thresholds, which include source levels and transmission loss coefficient.

Sound Propagation

Transmission loss (TL) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. TL parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater TL is:

$$TL = B * \log_{10}(R_1/R_2),$$

Where:

B = transmission loss coefficient (assumed to be 15)

R_1 = the distance of the modeled SPL from the driven pile, and

R_2 = the distance from the driven pile of the initial measurement.

This formula neglects loss due to scattering and absorption, which is assumed to be zero here. The degree to which underwater sound propagates away from a sound source is dependent on a variety of factors, most notably the water bathymetry and presence or absence of reflective or absorptive conditions including in-water structures and sediments. Spherical spreading occurs in a perfectly unobstructed (free-field) environment not limited by depth or water surface, resulting in a 6 dB reduction in sound level for each doubling of distance from the source (20*log(range)). Cylindrical spreading occurs in an environment in which sound propagation is bounded by the water surface and sea bottom, resulting in a reduction of 3 dB in sound level for each doubling of distance from the source (10*log(range)). As is common practice in coastal waters, here we assume practical spreading loss (4.5 dB reduction in sound level for each doubling of distance). Practical spreading is a compromise that is often

used under conditions where water depth increases as the receiver moves away from the shoreline, resulting in an expected propagation environment that would lie between spherical and cylindrical spreading loss conditions.

Sound Source Levels

The intensity of pile driving sounds is greatly influenced by factors such as the type of piles, hammers, and the physical environment in which the activity takes place. There are source level measurements available for certain pile types and sizes from the similar environments recorded from underwater pile driving projects (*e.g.,* Caltrans 2015) that were used to determine reasonable sound source levels likely result from the HRCP's pile driving and removal activities (Table 5). Bubble curtains will be used during impact pile driving of 36-in steel piles at the Jet Grouting Trestle in water depths greater than 6 m (20 ft). Therefore, a 7dB reduction of the sound source level will be implemented (Table 5).

TABLE 5—PREDICTED SOUND SOURCE LEVELS FOR ALL PILE TYPES

Method and pile type	Sound source level at 10 meters			Source
Vibratory hammer	dB rms			
42-in steel pile	[a] 168			City and Borough of Sitka Department of Public Works 2017.
36-in steel pile	[b] 167			DoN 2015.
24-in steel pile	[c] 161			DoN 2015.
Down-the-hole hammer	dB rms	dB SEL	dB peak	
All pile sizes	180	164	190	Denes *et al.,* 2019.
Impact hammer	dB rms	dB SEL	dB peak	
36-in steel pile	193	183	210	Caltrans, 2015.
36-in steel pile, attenuated *	186	176	203	Caltrans, 2015.
54-in concrete cylinder pile	187	177	193	MacGillivray *et al.,* 2007.
30-in concrete square pile	187	177	193	MacGillivray *et al.,* 2007.
24-in concrete square pile	176	166	188	Caltrans, 2015.

SEL = sound exposure level; dB peak = peak sound level; rms = root mean square; DoN = Department of the Navy.
* Sound source levels (SSLs) are a 7 dB reduction for the usage of a bubble curtain.
[a] The SPL rms value of 168 dB is within 2 dB of Caltrans (2015) at 170 dB rms for 42-in piles.
[b] The SPL rms value of 167 is within 3 dB of Caltrans (2015) at 170 dB rms; however, the DoN (2015) incorporates a larger dataset and is better suited to this project.
[c] There is no Caltrans (2015) data available for this pile size. Caltrans is 155 dB rms for 12-in pipe pile or 170 dB rms for 36-in steel piles. The value of 161 dB rms has been also used in previous IHAs (*e.g.,* 82 FR 31400, July 6, 2017; 83 FR 12152, March 20, 2018; 84 FR 22453, May 17, 2019; and 84 FR 34134, July 17, 2019).

During pile driving installation activities, there may be times when multiple construction sites are active and hammers are used simultaneously. For impact hammering, it is unlikely that the two hammers would strike at the same exact instant, and therefore, the sound source levels will not be adjusted regardless of the distance between the hammers. For this reason, multiple impact hammering is not discussed further. For simultaneous vibratory hammering, the likelihood of such an occurrence is anticipated to be infrequent and would be for short durations on that day. In-water pile installation is an intermittent activity, and it is common for installation to start and stop multiple times as each pile is adjusted and its progress is measured. When two continuous noise sources, such as vibratory hammers, have overlapping sound fields, there is potential for higher sound levels than for non-overlapping sources. When two or more vibratory hammers are used simultaneously, and the sound field of one source encompasses the sound field of another source, the sources are considered additive and combined using the following rules (see Table 6): For addition of two simultaneous vibratory hammers, the difference between the two SSLs is calculated, and if that difference is between 0 and 1 dB, 3 dB are added to the higher SSL; if difference is between 2 or 3 dB, 2 dB are added to the highest SSL; if the difference is between 4 to 9 dB, 1 dB is added to the highest SSL; and with differences of 10 or more decibels, there is no addition.

TABLE 6—RULES FOR COMBINING SOUND LEVELS GENERATED DURING PILE INSTALLATION

Hammer types	Difference in SSL	Level A zones	Level B zones
Vibratory, Impact	Any	Use impact zones	Use vibratory zone.
Impact, Impact	Any	Use zones for each pile size and number of strikes.	Use zone for each pile size.
Vibratory, Vibratory	0 or 1 dB	Add 3 dB to the higher source level	Add 3 dB to the higher source level.
	2 or 3 dB	Add 2 dB to the higher source level	Add 2 dB to the higher source level.
	4 to 9 dB	Add 1 dB to the higher source level	Add 1 dB to the higher source level.
	10 dB or more	Add 0 dB to the higher source level	Add 0 dB to the higher source level.

Source: Modified from USDOT 1995, WSDOT 2018, and NMFS 2018b.
Note: dB = decibels; SSL = sound source level.

For simultaneous usage of three or more continuous sound sources, such as vibratory hammers, the three overlapping sources with the highest SSLs are identified. Of the three highest SSLs, the lower two are combined using the above rules, then the combination of the lower two is combined with the highest of the three. For example, with overlapping isopleths from 24-, 36-, and 42-in diameter steel pipe piles with SSLs of 161, 167, and 168 dB rms respectively, the 24- and 36-inwould be added together; given that 167 − 161 = 6 dB, then 1 dB is added to the highest of the two SSLs (167 dB), for a combined noise level of 168 dB. Next, the newly calculated 168 dB is added to the 42-in steel pile with SSL of 168 dB. Since 168 − 168 = 0 dB, 3 dB is added to the highest value, or 171 dB in total for the combination of 24-, 36-, and 42-in steel pipe piles (NMFS 2018b; WSDOT 2018). As described in Table 6, decibel addition calculations were carried out for all possible combinations of vibratory installation of 24-, 36- and 42-in steel pipe piles throughout the project area (Table 7).

Table 7-- Possible Vibratory Pile Combinations for the Project

Method			Vibratory								
	Pile Diameter (Inches)		24	24+24	36	42	36+24	42+24	36+36	42+36	42+42
		SSL (dB)	161	164	167	168	168	169	170	171	171
Vibratory	24	161	164	166	168	169	-	-	-	-	-
	36	167	168	169	170	171	171	-	172	-	-
	42	168	169	169	171	171	171	172	172	173	173

SSL = Sound Source Level; dB = decibels.

"-" combination not valid, must compare lowest two values first, then highest value.

Level A Harassment

When the NMFS Technical Guidance (2016) was published, in recognition of the fact that ensonified area/volume could be more technically challenging to predict because of the duration component in the new thresholds, we developed a User Spreadsheet that includes tools to help predict a simple isopleth that can be used in conjunction with marine mammal density or occurrence to help predict takes. We note that because of some of the assumptions included in the methods used for these tools, we anticipate that isopleths produced are typically going to be overestimates of some degree, which may result in some degree of overestimate of Level A harassment take. However, these tools offer the best way to predict appropriate isopleths when more sophisticated 3D modeling methods are not available, and NMFS continues to develop ways to quantitatively refine these tools, and will qualitatively address the output where appropriate. For stationary sources (such as from vibratory pile driving), NMFS User Spreadsheet predicts the closest distance at which, if a marine mammal remained at that distance the whole duration of the activity, it would incur PTS. Inputs used in the User Spreadsheet (Tables 8 through 10), and the resulting isopleths are reported below (Table 11).

In the chance that multiple vibratory hammers would be operated simultaneously, to simplify implementation of Level A harassment zones, the worst-case theoretical scenarios were calculated for the longest anticipated duration of the largest pile size (42-in steel pile) that could be installed within a day (see Table 8). However, it would be unlikely that six sets of three piles could be installed in synchrony, but more likely that installations of piles would overlap by a few minutes at the beginning or end, throughout the day, so that during a 12-hour construction shift, there would be periods of time when zero, one, two, three, or more hammers would be working.

TABLE 8—NMFS TECHNICAL GUIDANCE (2018) USER SPREADSHEET INPUT TO CALCULATE PTS ISOPLETHS FOR VIBRATORY PILE DRIVING FOR ALL LOCATIONS

[User spreadsheet input—vibratory pile driving spreadsheet tab A.1 vibratory pile driving used]

	24-in steel piles	36-in steel piles	36-in steel piles (at TBM platform)	42-in steel piles	42-in steel piles (multiple hammer event—3 hammers simultaneously)	42-in steel piles (multiple hammer event—2 hammers simultaneously)
Source Level (RMS SPL).	161	167	167	168	173	171.
Weighting Factor Adjustment (kHz).	2.5	2.5	2.5	2.5	2.5	2.5.
Number of piles within 24-hr period.	6	3	2	6	6 (3 piles installed simultaneously, 6 piling events).	9. (2 piles installed simultaneously, 9 piling events).
Duration to drive a single pile (min).	30	50	60	30	30	30.
Propagation (xLogR) ..	15	15	15	15	15	15.

TABLE 8—NMFS TECHNICAL GUIDANCE (2018) USER SPREADSHEET INPUT TO CALCULATE PTS ISOPLETHS FOR VIBRATORY PILE DRIVING FOR ALL LOCATIONS—Continued

[User spreadsheet input—vibratory pile driving spreadsheet tab A.1 vibratory pile driving used]

	24-in steel piles	36-in steel piles	36-in steel piles (at TBM platform)	42-in steel piles	42-in steel piles (multiple hammer event—3 hammers simultaneously)	42-in steel piles (multiple hammer event—2 hammers simultaneously)
Distance of source level measurement (meters).	10	10	10	10	10	10.

TABLE 9—NMFS TECHNICAL GUIDANCE (2018) USER SPREADSHEET INPUT TO CALCULATE PTS ISOPLETHS FOR IMPACT PILE DRIVING FOR THE JET GROUTING TRESTLE WITH AND WITHOUT A BUBBLE CURTAIN

[User spreadsheet input—impact pile driving spreadsheet tab E.1–2 impact pile driving used for jet grouting trestle]

	36-in steel piles	36-in steel piles (attenuated)
Source Level (SEL)	183	* 176
Weighting Factor Adjustment (kHz)	2	2
Number of piles within 24-hr period	3	3
Number of strikes per pile	40	40
Propagation (xLogR)	15	15
Distance of source level measurement (meters)+	10	10

* The attenuated piles account for a 7dB reduction from the use of a bubble curtain.

TABLE 10—NMFS TECHNICAL GUIDANCE (2018) USER SPREADSHEET INPUT TO CALCULATE PTS ISOPLETHS FOR IMPACT PILE DRIVING AND DTH DRILLING

[User spreadsheet input—impact pile driving spreadsheet tab E.1–2 impact pile driving]

	North trestle	North trestle, willoughby bay, and south trestle test pile program			South island		DTH			
	36-in steel piles	24-in concrete square	30-in concrete square	54-in concrete cylinder	TBM platform 36-in steel piles	Conveyor trestle 36-in steel piles	TBM platform 36-in steel piles	North shore work trestle 36-in steel piles	Jet grouting trestle 36-in steel piles	Conveyor trestle 36-in steel piles
Source Level (SEL)	183	166	177	177	183	183	164	164	164	164
Weighting Factor Adjustment (kHz)	2	2	2	2	2	2	2	2	2	2
Number of piles within 24-hr period	3	1	1	1	2	3	2	3	3	3
Number of strikes per pile	40	2,100	2,100	2,100	60	40	50,400	50,400	50,400	50,400
Propagation (xLogR)	15	15	15	15	15	15	15	15	15	15
Distance of source level measurement (meters)+	10	10	10	10	10	10	10	10	10	10

TABLE 11—LEVEL A HARASSMENT ISOPLETHS FOR BOTH VIBRATORY AND IMPACT PILE DRIVING

User spreadsheet output		PTS isopleths (meters)				PTS isopleths (km^2)			
		Level A harassment				Level A harassment			
Pile type/activity	Sound source level at 10 m	Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid	Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid
Vibratory Pile Driving									
24-in steel pile installation (All Locations).	161 dB SPL	15	2	21	9	<0.01			
36-in steel pile installation (All Locations).	167 dB SPL	32	3	47	20	<0.01			
36-in steel pile installation (TMB Platform).	167 dB SPL	28	3	41	17	<0.01			
42-in steel pile installation (All Locations).	168 dB SPL	42	4	62	26	<0.10			
Impact Pile for the Jet Grouting Trestle									
36-in steel pile installation	183 dB SEL/ 193 SPL.	243	9	290	130	0.11	<0.01	0.16	<0.10
36-in steel pile installation (attenuated).	176 dB SEL/ 186 SPL.	83	3	99	45	0.014	<0.001	0.20	<0.01

TABLE 11—LEVEL A HARASSMENT ISOPLETHS FOR BOTH VIBRATORY AND IMPACT PILE DRIVING—Continued

User spreadsheet output		PTS isopleths (meters)				PTS isopleths (km^2)			
		Level A harassment				Level A harassment			
Pile type/activity	Sound source level at 10 m	Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid	Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid
Impact Pile Driving North Trestle									
36-in steel pile installation (North Shore Work Trestle).	183 dB SEL/ 193 SPL.	243	9	290	130	0.19	<0.001	0.26	0.05
Impact Pile Driving for North Trestle, Willoughby Bay, and South Trestle Test Pile Program									
24-in concrete square pile installation/removal.	166 dB SEL/ 190 SPL.	121	5	144	65	0.05	<0.001	0.07	0.01
30-in concrete square pile installation/removal.	177 dB SEL/ 187 SPL.	652	23.2	776.6	348.9	1.335	0.002	1.8947	0.3824
54-in concrete square pile installation/removal.	177 dB SEL/ 187 SPL.	652	23.2	776.6	348.9	1.335	0.002	1.8947	0.3824
Impact Pile Driving for South Island									
36-in steel pile installation (TBM Platform).	183 dB SEL/ 193 SPL.	243	9	290	130	0.11	<0.001	0.16	<0.10
36-in steel pile installation (Conveyor Trestle).	183 dB SEL/ 193 SPL.	243	9	290	130	0.11	<0.001	0.16	<0.10
DTH Drilling									
36-in steel pile installation (TBM Platform).	164 SEL/180 dB SPL.	1,171	42	1,395	627	2.437	<0.01	3.446	0.704
36-in steel pile installation (North Shore Work Trestle).	164 SEL/180 dB SPL.	1,534	55	1,827	821	3.615	<0.01	4.790	1.548
36-in steel pile installation (Jet Grouting Trestle).	164 SEL/180 dB SPL.	1,534	55	1,827	821	3.615	<0.01	5.908	1.548
36-in steel pile installation (Conveyor Trestle).	164 SEL/180 dB SPL.	1,534	55	1,827	821	3.615	<0.01	5.908	1.548
Multiple Hammers—Vibratory Pile Driving (if occurs)*									
42-in steel pile installation (assumes 3 piles installed simultaneously, 6 piling events * 30 minutes each event in a 24-hr period).	173 dB SPL ...	89.6	7.9	132.5	54.5	0.025	0.0001	0.055	0.009
42-in steel pile installation (assumes 2 piles installed simultaneously, 9 piling events * 30 minutes each event in a 24-hr period).	171 dB SPL ...	86.4	7.7	127.8	52.5	0.023	0.0001	0.051	0.009

*SPLs were calculated by decibel addition as presented in Table 6 using the largest pile size (42-in steel piles) and possible combinations of two and three multiple hammer events. Please note: smaller piles may also have multiple hammer events; however, their SPLs would be smaller than the 42-in steel pipe pile scenarios so they are not presented here. The HRCP will be using the largest Level A isopleths calculated regardless of pile size during multiple hammering events.

For multiple hammering of 42-in steel pipe piles with a vibratory hammer on a single day, the calculated Level A harassment isopleth for the functional hearing groups would remain smaller than 100 m except for high-frequency cetaceans (*i.e.,* harbor porpoise). The Level A harassment isopleth for harbor porpoises would be 132.5 m and 127.8 m for the two scenarios (Table 11). It is unlikely that a harbor porpoise could accumulate enough sound from the installation of multiple piles in multiple locations for the duration required to meet these Level A harassment thresholds. Additionally, other combinations of pile sizes under multiple hammering with a vibratory hammer would result in Level A harassment thresholds smaller than 100 m. To be precautionary, a shutdown zone of 100 m would be implemented for all species for each vibratory hammer on days when it is anticipated that multiple vibratory hammers will be used regardless of pile size.

Level B Harassment

Utilizing the practical spreading loss model, underwater noise will fall below the behavioral effects threshold of 120 and 160 dB rms for marine mammals at the distances shown in Table 12 for vibratory and impact pile driving, respectively. Table 12 below provides all Level B harassment radial distances (m) and their corresponding areas (km^2) during HRCP's planned activities.

TABLE 12—RADIAL DISTANCES (meters) TO RELEVANT BEHAVIORAL ISOPLETHS AND ASSOCIATED ENSONIFIED AREAS (km^2) USING THE PRACTICAL SPREADING MODEL

Location and component	Method and pile type	Distance to level B harassment zone (m)	Level B harassment zone (km^2)
Vibratory Hammer (Level B Isopleth = 120 dB)			
North Trestle			
Moorings	42-in steel piles	15,849	96.781
North Shore Work Trestle	36-in steel piles	13,594	85.525
Moorings	24-in steel piles	5,412	25.335
North Island			
Moorings	42-in steel piles	15,849	100.937
South Island			
TBM Platform	36-in steel piles	13,594	81.799
Conveyor Trestle	36-in steel piles	13,594	81.799
Jet Grouting Trestle	36-in steel piles	13,594	81.799
South Trestle			
Moorings	42-in steel piles	15,849	305.343
Moorings	24-in steel piles	5,412	55.874
Willoughby Bay			
Moorings	42-in steel piles	15,849	5.517
Moorings	24-in steel piles	5,412	5.517
Down-the-Hole Hammer (Level B Isopleth = 120 dB)			
North Shore Work Trestle	36-in steel piles	11,659	427.044
TBM Platform	36-in steel piles	11,659	427.044
Jet Grouting Trestle	36-in steel piles	11,659	427.044
Conveyor Trestle	36-in steel piles	11,659	427.044
Impact Hammer (Level B Isopleth = 160 dB)			
North Trestle			
North Shore Work Trestle	36-in steel piles	1,585	3.806
South Island			
TBM Platform	36-in steel piles	1,585	0.087
Conveyor Trestle	36-in steel piles	1,585	0.087
Jet Grouting Trestle with Bubble Curtain	36-in steel piles	*541	*0.012
North Trestle, South Trestle, Willoughby Bay			
Test Pile Program	54-in concrete cylinder piles	631	1.2509
Test Pile Program	30-in concrete square piles	631	1.2509
Test Pile Program	24-in concrete square piles	117	0.04

dB = decibels; km^2 = square kilometers; TBM = Tunnel Boring Machine.
* Values smaller than other 36-in steel piles due to usage of a bubble curtain, resulting in a 7 dB reduction in dB rms, dB peak, and dB SEL.

For the test pile program, in some cases, the calculated Level A harassment isopleths are larger than the Level B harassment zones. This has occurred due to the conservative assumptions going into calculation of the Level A harassment isopleths. Animals will most likely respond behaviorally before they are injured, especially at greater distances and unlikely to accumulate noise levels over a certain period of time that would likely lead to PTS.

When multiple vibratory hammers are used simultaneously, the calculated Level B harassment zones (Table 13) would be larger than the Level B harassment zones reported in above in Table 12 depending on the combination of sound sources due to decibel addition of multiple vibratory hammers as discussed earlier (see Table 7). Table 13 shows the calculated distances to the Level B harassment zone for decibel levels resulting from the simultaneous installation of piles with multiple vibratory hammers using the data provided in Table 7. However, the actual monitoring zones applied during multiple vibratory hammer use are discussed in the Monitoring and Reporting section.

TABLE 13—CALCULATED DISTANCES TO LEVEL B HARASSMENT ZONES FOR MULTIPLE HAMMER ADDITIONS

Combined SSL (dB)	Distance to level B harassment zone (m)
163	7,356
164	8,577
165	10,000
166	11,659
167	13,594
168	15,849
169	18,478
170	21,544
171	25,119
172	29,286
173	34,145

Note: dB = decibels; SSL = sound source level.

Marine Mammal Occurrence and Take Calculation and Estimation

In this section, we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations. Potential exposures to impact and vibratory pile driving and removal for each acoustic threshold were estimated using local observational data. Authorized take by Level A and B harassment is also described.

Humpback Whales

Humpback whales are more rare in the project area and density data for this species within the project vicinity are not available. Humpback whale sighting data collected by the U.S. Navy near Naval Station Norfolk and Virginia Beach from 2012 to 2015 (Engelhaupt *et al.* 2014, 2015, 2016) and in the mid-Atlantic (including the Chesapeake Bay) from 2015 to 2018 (Aschettino *et al.* 2015, 2016, 2017a, 2018) did not produce large enough sample sizes to calculate densities, or survey data were not collected during systematic line-transect surveys. Humpback whale densities have been calculated for populations off the coast of New Jersey, resulting in a density estimate of 0.000130 animals per square kilometer or one humpback whale within the area on any given day of the year (Whitt *et al.,* 2015), which may be similar to the density of whales in the project area. Aschettino *et al.* (2018) observed and tracked two individual humpback whales in the Hampton Roads area of the project area (Movebank, 2019). The HRCP is estimating up to two whales may be exposed to project-related noise every two months. Pile installation/removal is expected to occur over a 12-month period; therefore, a total of 12 instances of take by Level B harassment of humpback whales is authorized. Due to the low occurrence of humpback whales and because large whales are easier to sight from a distance, we do not anticipate or propose take of humpback whales by Level A harassment.

Bottlenose Dolphin

The expected number of bottlenose dolphins in the project area was estimated using inshore seasonal densities provided in Engelhaupt *et al.* (2016) from vessel line-transect surveys near Naval Station Norfolk and adjacent areas near Virginia Beach, Virginia, from August 2012 through August 2015 (Engelhaupt *et al.,* 2016). NMFS used the density of 1.38 dolphins/km^2 and (1) the Level B harassment ensonified area of 131.4 km^2 west of the HRBT multiplied by 312 days of activities, plus (2) the Level B harassment ensonified area of 221.46 km^2 for vibratory installation of 42-in steel piles at the South Trestle multiplied by 7 days of activities, plus (3) the Level B harassment ensonified area associated of 27.65 km^2 for vibratory installation of 24-in steel piles at the South Trestle multiplied by 3 days of activities, and plus (4) the Level B harassment ensonified area associated of 0.87 km^2 for impact installation of 54-in concrete piles at the South Trestle multiplied 22 days of activities to increase the numbers of Level B harassment takes of bottlenose dolphins from 6,343 to 58,856. (Table 14).

TABLE 14—AUTHORIZED BOTTLENOSE DOLPHIN TAKE

Total project days	Level B harassment west of the HRBT (km^2)	Dolphin density (animals/km^2)	Days 24-in pile driving	24-in piles: level B harassment at South Trestle (km^2)	Dolphin density (animals/km^2)	Days 54-in pile driving	54-in piles: level B harassment at South Trestle (km^2)	Dolphin density (animals/km^2)	Days 42-in pile driving	42-in piles: level B harassment at South Trestle (km^2)	Dolphin density (animals/km^2)
312	131.4	1.38	3	27.65	1.38	22	0.87	1.38	7	221.46	1.38
56,575.584			114.471			26.4132			2,139.3036		

Total Authorized Takes of Bottlenose Dolphin 58,855.77 (rounded to 58,856).

Source: Engelhaupt *et al.,* 2016.

Because the Level A harassment zones are relatively small (a 55-m isopleth is the largest during DTH drilling of 36-in piles) and we believe the PSO will be able to effectively monitor the Level A harassment zones, we do not anticipate take by Level A harassment of bottlenose dolphins.

Harbor Seals

The expected number of harbor seals in the project area was estimated using systematic, land- and vessel-based survey data for in-water and hauled-out seals collected by the U.S. Navy at the Chesapeake Bay Bridge Tunnel (CBBT) rock armor and portal islands from 2014 through 2019 (Jones *et al.,* 2020). The average daily seal count from the 2014 through 2019 field seasons ranged from 8 to 23 for an average of 13.6 harbor seals across all the field seasons (Table 15).

TABLE 15—HARBOR SEAL COUNTS AT CHESAPEAKE BAY BRIDGE TUNNEL

Field season	"In season" survey days	Total seal count	Average daily seal count	Max daily seal count
2014–2015	11	113	10	33
2015–2016	14	187	13	39
2016–2017	22	308	14	40
2017–2018	15	340	23	45

TABLE 15—HARBOR SEAL COUNTS AT CHESAPEAKE BAY BRIDGE TUNNEL—Continued

Field season	"In season" survey days	Total seal count	Average daily seal count	Max daily seal count
2018–2019	10	82	8	17
Average			13.6	34.8

Source: Jones *et al.,* 2020.

NMFS estimated take using the average daily seal count over five field seasons (2014–2019) (Jones *et al.,* 2020). This average count is 13.6 seals (rounded up to 14 seals). Fourteen seals/day multiplied by 156 days (number of days of activities when the seals are present, December to May) equals 2,184 takes. The takes by Level A harassment were calculated from approximately 21 percent of the pile-driving days during DTH drilling when the Level A harassment zone is fairly large (821 m) for a total of 459 takes. Therefore, 1,725 takes by Level B harassment and 459 takes by Level A harassment are being authorized for this IHA.

Gray Seals

The expected number of gray seals in the project area was estimated using systematic, land- and vessel-based survey data for in-water and hauled out seals collected by the U.S. Navy at the CBBT rock armor and portal islands from 2014 through 2018 (Rees *et al.,* 2016; Jones *et al.,* 2018). Seasonal numbers of gray seals in the Chesapeake Bay waters in the vicinity of the project area in previous years have been low (Table 16). Gray seals are not expected to be present in the Chesapeake Bay during the months of June through October (Table 16 and Table 17).

TABLE 16—SUMMARY OF HISTORICAL GRAY SEAL SIGHTINGS BY MONTH FROM 2014 TO 2018

Month	Number of individual gray seals					Monthly average
	2014	2015	2016	2017	2018	
January		0	0	0	0	0
February		1	1	0	1	0.8
March		0	0	0	0	0
April		0	0	0	0	0
May		0	0	0	0	0
June	Seals not expected to be present.					0
July	Seals not expected to be present.					0
August	Seals not expected to be present.					0
September	Seals not expected to be present.					0
October	Seals not expected to be present.					0
November	0	0	0	0		0
December	0	0	0	0		0

Source: Rees *et al.,* 2016; Jones *et al.,* 2018.

TABLE 17—AVERAGE NUMBER OF INDIVIDUAL GRAY SEAL SIGHTINGS SUMMARIZED BY SEASON

Season	Average number of individuals per season
Spring (March–May)	0
Summer (June–August)	0
Fall (September–November)	0
Winter (December–February)	1

Note: Data generated from Table 16.

Gray seals are expected to be very uncommon in the project area. The historical data indicate that approximately one gray seal has been seen per year. To be conservative, HRCP requests three instances of take by Level B harassment of gray seals during each winter month (December through February). Therefore, HRCP estimated and NMFS is authorizing nine instances of take by Level B harassment of gray seals (three gray seals per month multiple by three months = nine gray seals). Because of the unlikely to low occurrence of gray seals in the project area, we do not anticipate and are not authorizing take by Level A harassment of gray seals.

Harbor Porpoise

Harbor porpoises are known to occur in the coastal waters near Virginia Beach (Hayes *et al.* 2019), and although they have been reported on rare occasions in the Chesapeake Bay, closer to Norfolk, they are rarely seen in the project area. Density data for this species within the Project vicinity do not exist or were not calculated because sample sizes were too small to produce reliable estimates of density. Harbor porpoise sighting data collected by the U.S. Navy near Naval Station Norfolk and Virginia Beach from 2012 to 2015 (Engelhaupt *et al.,* 2014; 2015; 2016) did not produce enough sightings to calculate densities. One group of two harbor porpoises was seen during spring 2015 (Engelhaupt *et al.,* 2016). Based on this data, it estimated that one group of two harbor porpoises could be exposed to project-related in-water noise each month during the spring (March–May) for a total of six instances of take by Level B harassment (*i.e.,* one group of two individuals per month multiplied by three months = six harbor porpoises).

The largest calculated Level A harassment isopleth for high frequency cetaceans (*i.e.,* harbor porpoises) extends 1,827 m during DTH drilling of 36-in steel pipe piles. Because harbor porpoises are relatively difficult to observe, it is possible they may occur within the calculated Level A harassment zone without detection. As such, HRCP requested a small number of takes by Level A harassment for harbor porpoises during the project. Therefore, we authorize a total of two instances of take by Level A harassment, the number requested by HRCP.

Table 18 below summarizes the authorized take for all the species described above as a percentage of stock abundance.

TABLE 18—AUTHORIZED TAKE BY LEVEL A AND B HARASSMENT AND AS A PERCENTAGE OF STOCK ABUNDANCE

Species	Stock	Authorized level A harassment takes	Authorized level B harassment takes	Total takes authorization	Percentage of stock
Humpback whale	Gulf of Maine	0	12	12	Less than 2 percent.
Harbor porpoise	Gulf of Maine/Bay of Fundy	2	4	6	Less than 1 percent.
Bottlenose dolphin.	WNA Coastal, Northern Migratory [a]	0	29,320	29,320	Less than 33. *
	WNA Coastal, Southern Migratory [a].	0	29,320	29,320	Less than 33. *
	NNCES [a]	0	216	216	26.25.
Harbor seal	Western North Atlantic	459	1,725	2,184	Less than 1 percent.
Gray seal	Western North Atlantic	0	9	9	Less than 1 percent.

[a] Take estimates are weighted based on calculated percentages of population for each distinct stock, assuming animals present would follow same probability of presence in project area.

* Assumes multiple repeated takes of same individuals from small portion of each stock as well as repeated takes of Chesapeake Bay resident population (size unknown).

Mitigation

In order to issue an IHA under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as proposed), the likelihood of effective implementation (probability implemented as proposed), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

The following mitigation measures are included in the IHA:

Timing Restrictions

HRCP would conduct work during daylight hours, and if poor environmental conditions restrict full visibility of the shutdown zone, pile installation must be delayed. However, work may extend into the night as necessary under conditions where there is full visibility of the shutdown zone or where stopping ongoing work would otherwise create an unsafe work condition.

Shutdown Zone for In-Water Heavy Machinery Work

For in-water heavy machinery work other than pile driving, if a marine mammal comes within 10 m of such operations, operations will cease and vessels will reduce speed to the minimum level required to maintain steerage and safe working conditions.

Shutdown Zones

For all pile driving activities, HRCP will establish shutdown zones for a marine mammal (see Table 19 below). The purpose of a shutdown zone is generally to define an area within which shutdown of the activity would occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). HRCP will maintain a minimum 10 m shutdown zone for all pile driving activities where the

calculated PTS Isopleth is less than 10 m as described in Table 11.

If multiple vibratory hammering occurs, a shutdown zone of 100 m will be implemented for all species for each vibratory hammer on days when it is anticipated that multiple vibratory hammers will be used regardless of pile size.

During DTH drilling, a shutdown zone of 100 m for harbor seals will be implemented to reduce unnecessary shutdowns.

TABLE 19—SHUTDOWN ZONES

Pile type/activity	Sound source level at 10 m	Level a harassment shutdown zone (m)			
		Low-frequency cetaceans	Mid-frequency cetaceans	High-frequency cetaceans	Phocid
Vibratory Pile Driving					
24-in steel pile installation (All Locations).	161 dB SPL	15	10	21	10
36-in steel pile installation (All Locations).	167 dB SPL	32	10	47	20
36-in steel pile installation (TMB Platform).	167 dB SPL	28	10	41	17
42-in steel pile installation (All Locations).	168 dB SPL	42	10	62	26
Impact Pile for the Jet Grouting Trestle					
36-in steel pile installation	183 dB SEL/193 SPL	243	10	290	130
36-in steel pile installation (attenuated).	176 dB SEL/186 SPL	83	10	99	45
Impact Pile Driving North Trestle					
36-in steel pile installation (North Shore Work Trestle).	183 dB SEL/193 SPL	243	10	290	130
Impact Pile Driving for North Trestle, Willoughby Bay, and South Trestle Test Pile Program					
24-in concrete square pile installation/removal.	166 dB SEL/190 SPL	121	10	144	65
30-in concrete square pile installation/removal.	177 dB SEL/187 SPL	652	24	777	349
54-in concrete square pile installation/removal.	177 dB SEL/187 SPL	652	24	777	349
Impact Pile Driving for South Island					
36-in steel pile installation (TBM Platform).	183 dB SEL/193 SPL	243	10	290	130
36-in steel pile installation (Conveyor Trestle).	183 dB SEL/193 SPL	243	10	290	130
DTH Drilling					
36-in steel pile installation (TBM Platform).	164SEL/180 dB SPL	1,171	42	1,395	100
36-in steel pile installation (North Shore Work Trestle).	164 SEL/180 dB SPL	1,534	55	1,827	100
36-in steel pile installation (Jet Grouting Trestle).	164 SEL/180 dB SPL	1,534	55	1,827	100
36-in steel pile installation (Conveyor Trestle).	164 SEL/180 dB SPL	1,534	55	1,827	100
Multiple Hammers—Vibratory Pile Driving (if occurs) *					
42-in steel pile installation (assumes 3 piles installed simultaneously, 6 piling events * 30 minutes each event in a 24-hr period).	173 dB SPL	100	100	100	100
42-in steel pile installation (assumes 2 piles installed simultaneously, 9 piling events * 30 minutes each event in a 24-hr period).	171 dB SPL	100	100	100	100

* These zones are applicable for any multiple hammer events of any pile size where sound fields overlap.

Bubble Curtain

HRCP will use an air bubble curtain system during impact pile driving of 36-in steel pipe piles for the Jet Grouting Trestle. Bubble curtains would meet the following requirements:

The bubble curtain must distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column. The lowest bubble ring must be in contact with the mudline and/or rock bottom for the full circumference of the ring, and the weights attached to the bottom ring will ensure 100 percent mudline and/or rock bottom contact. No parts of the ring or other objects will prevent full mudline and/or rock bottom contact. The bubble curtain must be operated such that there is proper (equal) balancing of air flow to all bubblers. HRCP would employ the bubble curtain during impact pile driving in water depths greater than 6 m (20 ft) at the Jet Grouting Trestle.

Soft Start

HRCP would use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced energy strike sets. A soft start would be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.

Non-Authorized Take Prohibited

If a species enters or approaches the Level B harassment zone and that species is either not authorized for take or its authorized takes are met, pile driving and removal activities must shut down immediately using delay and shutdown procedures. Activities must not resume until the animal has been confirmed to have left the area or an observation time period of 15 minutes has elapsed.

Based on our evaluation of the HRCP's planned measures, NMFS has determined that the mitigation measures provide the means effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Monitoring and Reporting

In order to issue an IHA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the action area. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density);
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) Action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas);
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors;
- How anticipated responses to stressors impact either: (1) Long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks;
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat); and
- Mitigation and monitoring effectiveness.

Pre-Activity Monitoring

Prior to the start of daily in-water construction activity, or whenever a break in pile driving of 30 min or longer occurs, PSOs will observe the shutdown and monitoring zones for a period of 30 min. The shutdown zone will be cleared when a marine mammal has not been observed within the zone for that 30-min period. If a marine mammal is observed within the shutdown zone, pile driving activities will not begin until the animal has left the shutdown zone or has not been observed for 15 min. If the Level B harassment zone (*i.e.,* the monitoring zone) has been observed for 30 min and no marine mammals (for which take has not been authorized) are present within the zone, work can continue even if visibility becomes impaired within the monitoring zone. When a marine mammal for which Level B harassment take has been authorized is present in the monitoring zone, piling activities may begin and Level B harassment take will be recorded.

Monitoring Zones

The HRCP will establish monitoring zones for Level B harassment as presented in Table 12. The monitoring zones for this project are areas where SPLs are equal to or exceed 120 dB rms (for vibratory pile driving/removal and DTH drilling) or 160 dB rms (for impact pile driving). These zones provide utility for monitoring conducted for mitigation purposes (*i.e.,* shutdown zone monitoring) by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring of the Level B harassment zones enables observers to be aware of and communicate the presence of marine mammals in the project area, and thus prepare for potential shutdowns of activity. The HRCP will also be gathering information to help better understand the impacts of their planned activities on species and their behavioral responses. If the entire Level B harassment zone is not visible, Level B harassment takes will be extrapolated based upon the number of observed takes and the percentage of the Level B harassment zone that is not visible.

Multiple Hammer Level B Harassment Zones

Due to the likelihood of multiple active construction sites across the project area, it is possible that multiple vibratory hammers with overlapping sound fields may be in operation simultaneously during certain times throughout the duration of the project. As described in the Estimated Take section, the decibel addition of continuous noise sources results in much larger zone sizes than a single vibratory hammer. Decibel addition is not a consideration when sound fields do not overlap. Willoughby Bay is largely surrounded by land, and sound will be prevented from propagating to other project construction sites (see Figure 1–1 and Figure 6–1 of the application). Therefore, Willoughby Bay will be treated as an independent site with its own sound isopleths and observer requirements when construction is taking place within the bay. Willoughby Bay is relatively small

and will be monitored from the construction site by a single observer.

Additionally, the South Trestle is the only site where the sound will propagate into Chesapeake Bay (see Figure 6–1 of the application). Sound from other construction sites will not overlap with South Trestle and will not propagate into Chesapeake Bay. Therefore, the South Trestle also will be treated as an independent site with its own sound isopleths and observer requirements when construction is taking place. When the South Trestle site is active, an observer will be positioned on land to view as much of the Level B harassment zone as possible. If the entire Level B harassment zone is not visible, Level B harassment takes will be extrapolated based upon the number of observed takes and the percentage of the Level B harassment zone that is not visible.

If two or more vibratory hammers at the other three project sites (North Trestle, North Shore, South Island) are installing piles, there is potential for the sound fields to overlap when installation occurs simultaneously. If two piles that are 36-in or larger in diameter are simultaneously installed with vibratory hammers, the Level B Harassment zone can extend up to a 25 km radius to the southwest (see Figure 6–1, 171 dB isopleth of the application). However, the Level B harassment zones resulting from simultaneous use of multiple vibratory hammers are truncated in nearly all directions by the mainland and islands, which prevent propagation of sound beyond the confines of a core area (see Figure 11–1 (area outlined in red) of the application). The largest ensonified radii extend to the south into the James and Nansemond rivers, areas where marine mammal abundance is anticipated to be low and approaching zero. Therefore, HRCP will monitor a core area, called the Core Monitoring Area, during times when two or more vibratory hammers are simultaneously active at the other three project construction sites (North Trestle, North Shore, South Island). The Core Monitoring Area would encompass the area between the two bridge/tunnels, with observers positioned at key areas to monitor the geographic area between the bridges (see Figure 11–1 (area outlined in red) of the application). Depending on placement, the observers will be able to view west/southwest towards Batten Bay and the mouth of the Nansemond River. Marine mammals transiting the area will be located and identified as they move in and out of the Chesapeake Bay.

Visual Monitoring

Monitoring would be conducted 30 minutes before, during, and 30 minutes after all pile driving/removal activities. In addition, PSOs will record all incidents of marine mammal occurrence, regardless of distance from activity, and will document any behavioral reactions in concert with distance from piles being driven/removed. Pile driving/removal activities include the time to install, remove a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than 30 minutes.

Monitoring will be conducted by PSOs from land. The number of PSOs will vary from one or more, depending on the type of pile driving, method of pile driving and size of pile, all of which determines the size of the harassment zones. Monitoring locations will be selected to provide an unobstructed view of all water within the shutdown zone and as much of the Level B harassment zone as possible for pile driving activities. Monitoring locations may vary based on construction activity and location of piles or equipment. HRCP will station between one and four PSOs at locations offering the best available views of the Level A and Level B monitoring zones during in-water pile driving at the North Trestle, North Island, South Trestle, and South Island. When and where able, as determined by the PSO or Lead PSO when multiple observers are required, Level A and Level B harassment zones may be monitored for multiple pile driving locations by the same individual PSO. HRCP will be required to station between one and two PSOs at locations offering the best available views of the Level A and Level B monitoring zones during in-water pile driving at Willoughby Bay. If any entire Level B monitoring zone is not visible, pile driving activities may continue, and the number of individual animals within the Level B zone will be estimated and recorded. Estimated numbers of individuals will be extrapolated by dividing the number of observed individuals by the percentage of the monitoring zone that was visible.

In addition, PSOs will work in shifts lasting no longer than 4 hours with at least a 1-hour break between shifts, and will not perform duties as a PSO for more than 12 hours in a 24-hour period (to reduce PSO fatigue).

Monitoring of pile driving will be conducted by qualified, NMFS-approved PSOs, who will have no other assigned tasks during monitoring periods. The HRCP will adhere to the following conditions when selecting PSOs:

- Independent PSOs will be used (*i.e.,* not construction personnel);
- At least one PSO must have prior experience working as a marine mammal observer during construction activities;
- Other PSOs may substitute education (degree in biological science or related field) or training for experience;
- Where a team of three or more PSOs are required, a lead observer or monitoring coordinator will be designated. The lead observer must have prior experience working as a marine mammal observer during construction; and
- The HRCP will submit PSO curriculum vitaes for approval by NMFS for all observers prior to monitoring.

The HRCP will ensure that the PSOs have the following additional qualifications:

- Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface with ability to estimate target size and distance; use of binoculars may be necessary to correctly identify the target;
- Experience and ability to conduct field observations and collect data according to assigned protocols;
- Experience or training in the field identification of marine mammals, including the identification of behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior;
- Ability to communicate orally, by radio or in person, with project personnel to provide real-time information on marine mammals observed in the area as necessary; and
- Sufficient training, orientation, or experience with the construction operations to provide for personal safety during observations.

Reporting of Injured or Dead Marine Mammals

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, HRCP will report the incident to the

Office of Protected Resources (OPR), NMFS and to the Greater Atlantic Region New England/Mid-Atlantic Regional Stranding Coordinator as soon as feasible. If the death or injury was clearly caused by the specified activity, the HRCP must immediately cease the specified activities until NMFS is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHA. HRCP must not resume their activities until notified by NMFS.

The report must include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

Final Report

The HRCP will submit a draft report to NMFS no later than 90 days following the end of construction activities or 60 days prior to the issuance of any subsequent IHA for the project. PSO datasheets/raw sightings data would be required to be submitted with the reports. The HRCP will provide a final report within 30 days following resolution of NMFS' comments on the draft report. Reports will contain, at minimum, the following:

- Dates and times (begin and end) of all marine mammal monitoring;
- Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.,* impact or vibratory);
- Weather parameters and water conditions during each monitoring period (*e.g.,* wind speed, percent cover, visibility, sea state);
- The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting;
- Age and sex class, if possible, of all marine mammals observed;
- PSO locations during marine mammal monitoring;
- Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting);
- Description of any marine mammal behavior patterns during observation, including direction of travel and estimated time spent within the Level A and Level B harassment zones while the source was active;
- Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate);
- Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any;
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals;
- An extrapolation of the estimated takes by Level B harassment based on the number of observed exposures within the Level B harassment zone and the percentage of the Level B harassment zone that was not visible; and
- Submit all PSO datasheets and/or raw sighting data (in a separate file from the Final Report referenced immediately above).

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity, duration), the context of any responses (*e.g.,* critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS's implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels). Of note, is the significant increase of takes by Level B harassment for bottlenose dolphins compared with what was evaluated in the notice of proposed IHA. Despite the increase in take numbers, our determination remains the same. There could be multiple takes of individual animals but without any long-term adverse effects. Take by Level B harassment of bottlenose dolphins will be minimized through use of mitigation measures.

Pile driving activities associated with the planned HRCP project, as outlined previously, have the potential to disturb or displace marine mammals. The specified activities may result in take, in the form of Level B harassment (behavioral disturbance) or Level A harassment (auditory injury), incidental to underwater sounds generated from pile driving. Potential takes could occur if individuals are present in the ensonified zone when pile driving occurs. Level A harassment is only anticipated and authorized for harbor porpoises and harbor seals.

No serious injury or mortality is anticipated given the nature of the activities and measures designed to minimize the possibility of injury to marine mammals. The potential for these outcomes is minimized through the construction method and the implementation of the mitigation measures. When impact pile driving is used, implementation of bubble curtains (during 36-in steel piles at the Jet Grouting Trestle in water depths greater than 6 m (20 ft)), soft start and shutdown zones significantly reduce the possibility of injury. Given sufficient notice through use of soft starts (for impact driving), marine mammals are expected to move away from a sound source that is annoying prior to it becoming potentially injurious.

HRCP will use qualified PSOs stationed strategically to increase detectability of marine mammals, enabling a high rate of success in implementation of shutdowns to avoid injury for most species. PSOs will be stationed to provide a relatively clear view of the shutdown zones and monitoring zones. These factors will limit exposure of animals to noise levels that could result in injury.

HRCP's planned pile driving activities are highly localized. Only a relatively small portion of the Chesapeake Bay may be affected. Localized noise exposures produced by project activities may cause short-term behavioral modifications in affected cetaceans and pinnipeds. Moreover, the mitigation and monitoring measures are expected to further reduce the likelihood of injury as well as reduce behavioral disturbances.

Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff 2006). Individual animals, even if taken multiple times, will most likely move away from the sound source and be temporarily displaced from the areas of pile driving, although even this reaction has been observed primarily only in association with impact pile driving. The pile driving activities analyzed here are similar to, or less impactful than, numerous other construction activities conducted along both Atlantic and Pacific coasts, which have taken place with no known long-term adverse consequences from behavioral harassment. Furthermore, many projects similar to this one are also believed to result in multiple takes of individual animals without any documented long-term adverse effects. Level B harassment will be minimized through use of mitigation measures described herein and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring.

In addition to the expected effects resulting from authorized Level B harassment, we anticipate that small numbers of harbor porpoises and some harbor seals may enter the Level A harassment zones undetected, particularly during times of DTH drilling when the Level A harassment zones are large. It is unlikely that the animals would remain in the area long enough for PTS to occur. If any animals did experience PTS, it would likely only receive slight PTS, *i.e.* minor degradation of hearing capabilities within regions of hearing that align most completely with the energy produced by pile driving (*i.e.,* the low-frequency region below 2 kHz), not severe hearing impairment or impairment in the regions of greatest hearing sensitivity. If hearing impairment occurs, it is most likely that the affected animal's threshold would increase by a few dBs, which is not likely to meaningfully affect its ability to forage and communicate with conspecifics. As described above, we expect that marine mammals would be likely to move away from a sound source that represents an aversive stimulus, especially at levels that would be expected to result in PTS, given sufficient notice through use of soft start.

The project is not expected to have significant adverse effects on marine mammal habitat. No important feeding and/or reproductive areas for marine mammals are known to be near the project area. Project activities would not permanently modify existing marine mammal habitat. The activities may cause some fish to leave the area of disturbance, thus temporarily impacting marine mammal foraging opportunities in a limited portion of the foraging range. However, because of the relatively small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences.

In summary and as described above, the following factors primarily support our determination that the impacts resulting from this activity are not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival:

- No mortality is anticipated or authorized;
- Limited Level A harassment exposures (harbor porpoises and harbor seals) are anticipated;
- The anticipated incidents of Level B harassment consist of, at worst, temporary modifications in behavior that would not result in fitness impacts to individuals;
- The specified activity and associated ensonifed areas are very small relative to the overall habitat ranges of all species and does not include habitat areas of special significance (Biologically Important Areas or ESA-designated critical habitat); and
- The presumed efficacy of the mitigation measures in reducing the effects of the specified activity.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the monitoring and mitigation measures, NMFS finds that the total marine mammal take from the activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The authorized take of four of the five marine mammal species/stocks comprises less than one-third of the best available stock abundance, with the exception of the bottlenose dolphin stocks. There are three bottlenose dolphin stocks that could occur in the project area. Therefore, the estimated dolphin takes by Level B harassment would likely be portioned among the western North Atlantic northern migratory coastal stock, western North Atlantic southern migratory coastal stock, and NNCES stock. Based on the stocks' respective occurrence in the area, NMFS estimated that there would be 216 takes from the NNCES stock, with the remaining takes evenly split between the northern and southern migratory coastal stocks. Based on consideration of various factors described below, we have determined the numbers of individuals taken would likely comprise less than one-third of the best available population abundance estimate of either coastal migratory stock.

Both the northern migratory coastal and southern migratory coastal stocks have expansive ranges and they are the only dolphin stocks thought to make broad-scale, seasonal migrations in coastal waters of the western North Atlantic. Given the large ranges associated with these two stocks it is unlikely that large segments of either stock would approach the project area and enter into the Chesapeake Bay. The majority of both stocks are likely to be found widely dispersed across their respective habitat ranges and unlikely to be concentrated in or near the Chesapeake Bay.

Furthermore, the Chesapeake Bay and nearby offshore waters represent the boundaries of the ranges of each of the two coastal stocks during migration. The northern migratory coastal stock is found during warm water months from

coastal Virginia, including the Chesapeake Bay and Long Island, New York. The stock migrates south in late summer and fall. During cold water months dolphins may be found in coastal waters from Cape Lookout, North Carolina, to the North Carolina/Virginia. During January–March, the southern migratory coastal stock appears to move as far south as northern Florida. From April to June, the stock moves back north to North Carolina. During the warm water months of July–August, the stock is presumed to occupy coastal waters north of Cape Lookout, North Carolina, to Assateague, Virginia, including the Chesapeake Bay. There is likely some overlap between the northern and southern migratory stocks during spring and fall migrations, but the extent of overlap is unknown.

The Chesapeake Bay and waters offshore of the mouth are located on the periphery of the migratory ranges of both coastal stocks (although during different seasons). Additionally, each of the migratory coastal stocks are likely to be located in the vicinity of the Chesapeake Bay for relatively short timeframes. Given the limited number of animals from each migratory coastal stock likely to be found at the seasonal migratory boundaries of their respective ranges, in combination with the short time periods (~two months) animals might remain at these boundaries, it is reasonable to assume that takes are likely to occur only within some small portion of either of the migratory coastal stocks.

Both migratory coastal stocks likely overlap with the NNCES stock at various times during their seasonal migrations. The NNCES stock is defined as animals that primarily occupy waters of the Pamlico Sound estuarine system (which also includes Core, Roanoke, and Albemarle sounds, and the Neuse River) during warm water months (July–August). Members of this stock also use coastal waters (≤1 km from shore) of North Carolina from Beaufort north to Virginia Beach, Virginia, including the lower Chesapeake Bay. Comparison of dolphin photo-identification data confirmed that limited numbers of individual dolphins observed in Roanoke Sound have also been sighted in the Chesapeake Bay (Young, 2018). Like the migratory coastal dolphin stocks, the NNCES stock covers a large range. The spatial extent of most small and resident bottlenose dolphin populations is on the order of 500 km^2, while the NNCES stock occupies over 8,000 km^2 (LeBrecque *et al.,* 2015). Given this large range, it is again unlikely that a preponderance of animals from the NNCES stock would depart the North Carolina estuarine system and travel to the northern extent of the stock's range. However, recent evidence suggests that there is likely a small resident community of NNCES dolphins of indeterminate size that inhabits the Chesapeake Bay year-round (E. Patterson, NMFS, pers. comm.).

Many of the dolphin observations in the Bay are likely repeated sightings of the same individuals. The Potomac-Chesapeake Dolphin Project has observed over 1,200 unique animals since observations began in 2015. Re-sightings of the same individual can be highly variable. Some dolphins are observed once per year, while others are highly regular with greater than 10 sightings per year (J. Mann, Potomac-Chesapeake Dolphin Project, pers. comm.). Similarly, using available photo-identification data, Engelhaupt *et al.* (2016) determined that specific individuals were often observed in close proximity to their original sighting locations and were observed multiple times in the same season or same year. Ninety-one percent of re-sighted individuals (100 of 110) in the study area were recorded less than 30 km from the initial sighting location. Multiple sightings of the same individual would considerably reduce the number of individual animals that are taken by Level B harassment. Furthermore, the existence of a resident dolphin population in the Bay would increase the percentage of dolphin takes that are actually re-sightings of the same individuals.

In summary and as described above, the following factors primarily support our determination regarding the incidental take of small numbers of the affected stocks of bottlenose dolphin:

- Potential bottlenose dolphin takes in the project area are likely to be allocated among three distinct stocks;
- Bottlenose dolphin stocks in the project area have extensive ranges and it would be unlikely to find a high percentage of any one stock concentrated in a relatively small area such as the project area or the Chesapeake Bay;
- The Chesapeake Bay represents the migratory boundary for each of the specified dolphin stocks and it would be unlikely to find a high percentage of any stock concentrated at such boundaries; and
- Many of the takes would likely be repeats of the same animals and likely from a resident population of the Chesapeake Bay.

Based on the analysis contained herein of the planned activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must evaluate our proposed action (*i.e.,* the promulgation of regulations and subsequent issuance of incidental take authorization) and alternatives with respect to potential impacts on the human environment. This action is consistent with categories of activities identified in Categorical Exclusion B4 of the Companion Manual for NAO 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS determined that the action qualified to be categorically excluded from further NEPA review.

Endangered Species Act (ESA)

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA: 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. No incidental take of ESA-listed marine mammals are expected or authorized. Therefore, NMFS determined that consultation under section 7 of the ESA was not required for this action.

Authorization

As a result of these determinations, NMFS has issued an IHA to the HRCP for pile driving activities associated with the HRBT Expansion Project in Hampton-Norfolk, Virginia for a period of one year provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: August 4, 2020.

Donna S. Wieting,

Director, Office of Protected Resources, National Marine Fisheries Service.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA303]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Site Characterization Surveys

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments on proposed authorization and possible renewal.

SUMMARY: NMFS has received a request from Ørsted Wind Power North America, LLC, (Ørsted) for authorization to take marine mammals incidental to high-resolution geophysical (HRG) survey activities in coastal waters from New York to Massachusetts in certain areas of the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS). These areas are currently being leased by the Applicant's affiliates, Deepwater Wind New England, LLC, and Bay State Wind, LLC, respectively, and are identified as OCS–A 0486/0517, OCS–A 0487, and OCS–A 0500 (collectively referred to herein as the Lease Area). Ørsted is also planning to conduct marine site characterization surveys along one or more potential submarine export cable routes (ECRs) originating from the Lease Area and landing along the shore at locations from New York to Massachusetts, between Raritan Bay (part of the New York Bight) to Falmouth, Massachusetts. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an incidental harassment authorization (IHA) to incidentally take, by Level B harassment only, small numbers of marine mammals during the specified activities. NMFS is also requesting comments on a possible one-time one-year renewal that could be issued under certain circumstances and, if all requirements are met, as described in *Request for Public Comments* at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorizations and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than September 9, 2020.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service. Electronic comments should be sent to *ITP.esch@noaa.gov.*

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period. Comments received electronically, including all attachments, must not exceed a 25-megabyte file size. Attachments to electronic comments will be accepted in Microsoft Word or Excel or Adobe PDF file formats only. All comments received are a part of the public record and will generally be posted online at *www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable* without change. All personal identifying information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Carter Esch, Office of Protected Resources, NMFS, (301) 427–8421. Electronic copies of the applications and supporting documents, as well as a list of the references cited in this document, may be obtained by visiting the internet at: *www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable.* In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must evaluate our proposed action (*i.e.,* the promulgation of regulations and subsequent issuance of incidental take authorization) and alternatives with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 of the Companion Manual for NAO 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the proposed action qualifies to be categorically excluded from further NEPA review.

Information in Ørsted's application and this notice collectively provide the environmental information related to proposed issuance of the IHA for public review and comment. We will review all comments submitted in response to this notice prior to concluding our NEPA process or making a final decision on the request for incidental take authorization.

Summary of Request

On April 15, 2020, NMFS received a request from Ørsted for authorization to take marine mammals incidental to HRG surveys in the OCS–A 0486/0517, OCS–A 0487, and OCS–A 0500 Lease Areas designated and offered by the Bureau of

Ocean Energy Management (BOEM) as well as along one or more ECRs (ECR Area) between the southern portions of the Lease Areas and shoreline locations from New York to Massachusetts, to support the development of an offshore wind project. The application was considered adequate and complete on July 1, 2020. Ørsted's request is for take, by Level B harassment only, of small numbers of 15 species or stocks of marine mammals. Neither Ørsted nor NMFS expects serious injury or mortality to result from this activity and the activity is expected to last no more than one year; therefore, an IHA is appropriate.

NMFS previously issued an IHA to Ørsted for similar activities (84 FR 52464, October 2, 2019); Ørsted has complied with all the requirements (*e.g.,* mitigation, monitoring, and reporting) of that IHA.

Description of the Proposed Activity

Overview

Ørsted proposes to conduct HRG surveys in support of offshore wind development projects in the Lease Areas and ECR Area. The purpose of the HRG surveys is to obtain a baseline assessment of seabed/sub-surface soil conditions in the Lease Areas and ECR Area to support the siting of potential future offshore wind projects. Underwater sound resulting from Ørsted's proposed site characterization surveys has the potential to result in incidental take of marine mammals in the form of behavioral harassment.

Dates and Duration

HRG surveys, under this IHA, are anticipated to commence in September 2020. Ørsted is proposing to conduct continuous HRG survey operations 12-hours per day (daylight only in shallow, nearshore locations) and 24-hours per day (offshore) using multiple vessels. Ørsted defines a survey day as a 24-hour activity day and assumes a vessel covers 70 kilometers (km) of survey tracks per activity day. A survey day might be the sum of 12-hour daylight only or multiple partial 24-hour operations (if less than 70 km is surveyed in 24 hours). Based on the planned 24-hours operations, the survey activities for all survey segments would require 1,302 vessel days if one vessel were surveying the entire survey line continuously. However, an estimated 5 vessels may be used simultaneously, with a maximum of no more than 9 vessels. Therefore, all the survey effort will be completed in one year. See Table 1 for the estimated number of vessel days for each survey segment. The estimated durations to complete survey activities do not include weather downtime.

TABLE 1—SUMMARY OF PROPOSED HRG SURVEY SEGMENTS

Area	Total number of survey days	Maximum number of survey days using medium penetration SBPs (sparkers or boomers) [1]
OCS–A–0486 and OCS–A–0517	217	114
OCA–A–0487	261	97
OCS–A–0500	164	112
ECR Area	661	378
Total	1,302	701

[1] Days with no sparkers operating will use the Innomar parametric sub-bottom profiling equipment, ultra-short baseline positioning device (USBL) and/or other non-impulsive acoustic sources (see *Detailed Description of Specified Activities* section below).

Specific Geographic Region

Ørsted's survey activities would occur in the Lease Area (including OCS–A 0486/0517, OCS–A 0487, and OCS–A 0500), located approximately 14 miles (mi) south of Martha's Vineyard, Massachusetts at its closest point, as well as within potential export cable route corridors off the coast of New York, Connecticut, Rhode Island, and Massachusetts (shown in Figure 1 of the IHA application). In January 2020, Deepwater Wind New England, LLC requested that BOEM assign a portion of Lease Area OCS–A 0486 to Deepwater Wind South Fork, designated OCS–A 0517; the Lease split was approved in April 2020. Water depth in the Lease Area is 25–62 meters (m) and ranges from 1–90 m along potential ECRs to shoreline locations between New York and Massachusetts.

Detailed Description of the Specified Activities

The HRG survey activities would be supported by vessels of sufficient size to accomplish the survey goals in each of the specified survey areas. Surveys within the ECR Area will include 24-hour and 12-hour (daylight only) surveys. Up to nine (24-hour plus 12-hour) vessels may work concurrently throughout the Survey Area considered in this proposal; however, no more than 3 vessels are expected to work concurrently within any single lease area, with an estimated four offshore (24-hour) vessels and two nearshore (12-hour) vessels expected to work concurrently in the ECR Area. Seasonal vessel restrictions are detailed in the Proposed Mitigation section below. HRG equipment will either be deployed from remotely operated vehicles (ROVs) or mounted to or towed behind the survey vessel at a typical survey speed of approximately 4.0 kn (7.4 km) per hour. The geophysical survey activities proposed by Ørsted would include the following:

- Shallow Penetration Sub-bottom Profilers (SBPs; CHIRPs) to map the near-surface stratigraphy (top 0 to 5 m (0 to 16 ft) of sediment below seabed). A CHIRP system emits sonar pulses that increase in frequency over time. The pulse length frequency range can be adjusted to meet project variables. These are typically mounted on the hull of the vessel or from a side pole.
- Medium penetration SBPs (Boomers) to map deeper subsurface stratigraphy as needed. A boomer is a broad-band sound source operating in the 3.5 Hz to 10 kHz frequency range. This system is typically mounted on a sled and towed behind the vessel.
- Medium penetration SBPs (Sparkers) to map deeper subsurface stratigraphy as needed. A sparker

creates acoustic pulses from 50 Hz to 4 kHz omni-directionally from the source that can penetrate several hundred meters into the seafloor. These are typically towed behind the vessel with adjacent hydrophone arrays to receive the return signals.

• Parametric SBPs, also called sediment echosounders, for providing high density data in sub-bottom profiles that are typically required for cable routes, very shallow water, and archaeological surveys. These are typically mounted on the hull of the vessel or from a side pole.

• Ultra-short Baseline (USBL) Positioning and Global Acoustic Positioning System (GAPS) to provide high accuracy ranges to track the positions of other HRG equipment by measuring the time between the acoustic pulses transmitted by the vessel transceiver and the equipment transponder necessary to produce the acoustic profile. It is a two-component system with a hull or pole mounted transceiver and one to several transponders either on the seabed or on the equipment.

• Multibeam echosounder (MBES) to determine water depths and general bottom topography. MBES sonar systems project sonar pulses in several angled beams from a transducer mounted to a ship's hull. The beams radiate out from the transducer in a fan-shaped pattern orthogonally to the ship's direction.

• Seafloor imaging (sidescan sonar) for seabed sediment classification purposes, to identify natural and man-made acoustic targets resting on the bottom as well as any anomalous features. The sonar device emits conical or fan-shaped pulses down toward the seafloor in multiple beams at a wide angle, perpendicular to the path of the sensor through the water. The acoustic return of the pulses is recorded in a series of cross-track slices, which can be joined to form an image of the sea bottom within the swath of the beam. They are typically towed beside or behind the vessel or from an autonomous vehicle.

Table 2 identifies all the representative survey equipment that operate below 180 kHz that may be used in support of planned geophysical survey activities, some of which have the potential to be detected by marine mammals. The make and model of the listed geophysical equipment may vary depending on availability and the final equipment choices will vary depending upon the final survey design, vessel availability, and survey contractor selection. Geophysical surveys are expected to use several equipment types concurrently in order to collect multiple aspects of geophysical data along one transect, thereby reducing the duration of total survey activities. Selection of equipment combinations is based on specific survey objectives.

The operational frequencies for MBES and Sidescan Sonar that would be used for these surveys are greater than 180 kHz, outside the general hearing range of marine mammals likely to occur in the Survey Area. These equipment types are, therefore, not considered further in this notice.

Sparker and boomer systems, which produce the largest estimated Level B harassment isopleths (see Estimated Take section, Table 5), would be used for only a portion of the surveys days within the Survey Area. Surveys days that do not utilize sparkers or boomers would use Innomar parametric sonar systems combined with a USBL system or other intermittent non-impulsive sources, which produce smaller estimated Level B harassment zones (Table 5). A conservative estimate of the number of days using sparkers or boomers is provided in Table 1.

TABLE 2—SUMMARY OF REPRESENTATIVE HRG SURVEY EQUIPMENT

HRG equipment category	Specific HRG equipment	Operating frequency range(kHz)	Source level (dB rms)	Source level (dB 0-peak)	Beamwidth (degrees)	Typical pulse duration (ms)	Pulse repetition rate
Shallow Sub-bottom Profilers.	ET 216 (2000DS or 3200 top unit).	2–16; 2–8	195	-	24	20	6
	ET 424	4–24	176	-	71	3.4	2
	ET 512	0.7–12	179	-	80	9	8
	GeoPulse 5430A	2–17	196	-	55	50	10
	TB Chirp III—TTV 170.	2–7	197	-	100	60	15
Parametric Sub-bottom Profilers.	Innomar, SES-2000 compact.	85–115	222	-	4	1	40
	Innomar, SES-2000 Light & Light Plus.	85–115	222	-	4	1	50
	Innomar, SES-2000 Medium-70.	60–80	231	-	3	5	40
	Innomar, SES-2000 Medium-100.	85–115	232	-	2	3.5	40
	Innomar, SES-2000 Quattro.	85–115	220	-	3–5	1	60
	Innomar, SES-2000 Smart.	90–110	220	-	5	0.5	40
	Innomar, SES-2000 Standard & Standard Plus.	85–115	225	-	1–3.5	1.5	60
Medium Sub-bottom Profilers.	AA, Dura-spark UHD (400 tips, 500 J) [1].	0.3–1.2	203	211	Omni	1.1	4

TABLE 2—SUMMARY OF REPRESENTATIVE HRG SURVEY EQUIPMENT—Continued

HRG equipment category	Specific HRG equipment	Operating frequency range(kHz)	Source level (dB rms)	Source level (dB 0-peak)	Beamwidth (degrees)	Typical pulse duration (ms)	Pulse repetition rate
	AA, Dura-spark UHD (400+400) [1].	0.3–1.2	203	211	Omni	1.1	4
	GeoMarine, Geo-Source or similar dual 400 tip sparker (≤800 J) [1].	0.4–5	203	211	Omni	1.1	2
	GeoMarine Geo-Source 200 tip light weight sparker (400 J) [1].	0.3–1.2	203	211	Omni	1.1	4
	GeoMarine Geo-Source 200–400 tip freshwater sparker (400 J) [1].	0.3–1.2	203	211	Omni	1.1	4
	AA, triple plate S-Boom (700–1,000 J) [2].	0.1–5	205	211	80	0.6	4
Acoustic Cores	PanGeo (LF CHIRP).	2–6.5	177.5	-	73	4.5	0.06
	PanGeo (HF CHIRP).	4.5–12.5	177.5	-	73	4.5	0.06
Acoustic Positioning System (USBL).	Advances Navigation, Subsonus.	30	NR	176	Up to 300	90	5
	AA, Easytrak Alpha.	18–24	189	192	Up to 180	10	0.125–1
	AA, Easytrak Nexus 2.	18–24	192	193	150–180	10	2
	AA, Easytrak Nexus Lite.	18–24	190	192	180	10	2
	ET, BATS II	16–21	NR	NR	90	1–15	0.05–1.67
	EvoLogics, S2C	18–78	NR	NR	100-omni	NR	NR
	iXblue, IxSea GAPS Beacon System.	8–16	188	-	Omni	10	1
	Kongsberg HiPAP 501/502.	20.5–29.6	NR	207	15	30	0.8–30
	Sonardyne Ranger 2 and Mini Ranger 2 USBL HPT 3000/5/7000.	19–34	194	NR	NR	5	1
	Sonardyne Scout Pro.	35–50	188	NR	5	5	3
	Tritech, MicroNav	20–28	NR	169	NR	NR	0.1–2

- = not applicable; NR = not reported; μPa = micropascal; AA = Applied Acoustics; BATS = Broadband Acoustic Tracking System; dB = decibel; ET = EdgeTech; GAPS = Global Acoustic Positioning System; HF = high-frequency; HiPAP = high-precision acoustic positioning system; J = joule; LF = low-frequency; Omni = omnidirectional source; re = referenced to; SL = source level; $SL_{0\text{-}pk}$ = zero to peak source level; SL_{rms} = root-mean-square source level; UHD = ultra-high definition. For discussion of acoustic terminology, please see Potential Effects of Specified Activities on Marine Mammals and their Habitat and Estimated Take sections.

[1] The Dura-spark measurements and specifications provided in Crocker and Fratantonio (2016) were used for all sparker systems proposed for the survey. The data provided in Crocker and Fratantonio (2016) represent the most applicable data for similar sparker systems with comparable operating methods and settings when manufacturer or other reliable measurements are not available.

[2] Crocker and Fratantonio (2016) provide S-Boom measurements using two different power sources (CSP–D700 and CSP–N). The CSP–D700 power source was used in the 700 J measurements but not in the 1,000 J measurements. The CSP–N source was measured for both 700 J and 1,000 J operations but resulted in a lower SL; therefore, the single maximum SL value was used for both operational levels of the S-Boom.

The deployment of certain types of HRG survey equipment, including some of the equipment planned for use during Ørsted's proposed activity, produces sound in the marine environment that has the potential to result in harassment of marine mammals. Proposed mitigation, monitoring, and reporting measures are described in detail later in this document (please see Proposed Mitigation and Proposed Monitoring and Reporting).

Description of Marine Mammals in the Area of Specified Activity

Sections 3 and 4 of the IHA application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history, of the potentially affected species. Additional information regarding population trends and threats may be found in NMFS' Stock Assessment Reports (SARs; *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments*) and more

general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS' website (*www.fisheries.noaa.gov/find-species*).

All species that could potentially occur in the proposed survey areas are included in Table 6 of the IHA application. However, the temporal and/or spatial occurrence of several species listed in Table 6 of the IHA application is such that take of these species is not expected to occur, either because they have very low densities in the Survey Area or are known to occur further offshore than the Survey Area. These are: the blue whale (*Balaenoptera musculus*), Cuvier's beaked whale (*Ziphius cavirostris*), four species of Mesoplodont beaked whale (*Mesoplodon* spp.), dwarf and pygmy sperm whale (*Kogia sima* and *Kogia breviceps*), short-finned pilot whale (*Globicephala macrorhynchus*), northern bottlenose whale (*Hyperoodon ampullatus*), killer whale (*Orcinus orca*), pygmy killer whale (*Feresa attenuata*), false killer whale (*Pseudorca crassidens*), melon-headed whale (*Peponocephala electra*), striped dolphin (*Stenella coeruleoalba*), white-beaked dolphin (*Lagenorhynchus albirostris*), pantropical spotted dolphin (*Stenella attenuata*), Fraser's dolphin (*Lagenodelphis hosei*), rough-toothed dolphin (*Steno bredanensis*), Clymene dolphin (*Stenella clymene*), spinner dolphin (*Stenella longirostris*), hooded seal (*Cystophora cristata*), and harp seal (*Pagophilus groenlandicus*). As take of these species is not anticipated as a result of the proposed activities, these species are not analyzed further. In addition, the Florida manatee (*Trichechus manatus*) may be found in the coastal waters of the survey area. However, Florida manatees are managed by the U.S. Fish and Wildlife Service and are not considered further in this document.

Table 3 lists all species or stocks for which take is expected and proposed to be authorized for this action, and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2020). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS' SARs). While no mortality is anticipated or proposed for authorization, PBR and serious injury or mortality from anthropogenic sources are included here as a gross indicator of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS' stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS' Atlantic SARs (*e.g.,* Hayes *et al.,* 2020). All values presented in Table 3 are the most recent available at the time of publication and are available online at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region.*

TABLE 3—MARINE MAMMALS KNOWN TO OCCUR IN THE SURVEY AREA THAT MAY BE AFFECTED BY ØRSTED'S PROPOSED ACTIVITY

Common name	Scientific name	Stock	ESA/MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR [3]	Annual M/SI [3]
Order Cetartiodactyla—Cetacea—Superfamily Mysticeti (baleen whales)						
Family Balaenidae:						
North Atlantic right whale	*Eubalaena glacialis*	Western North Atlantic	E/D; Y	428 (0; 418; n/a)	0.8	6.85
Family Balaenopteridae (rorquals):						
Humpback whale	*Megaptera novaeangliae*	Gulf of Maine	-/-; N	1,396 (0; 1,380; See SAR)	22	12.15
Fin whale	*Balaenoptera physalus*	Western North Atlantic	E/D; Y	7,418 (0.25; 6,029; See SAR)	12	2.35
Sei whale	*Balaenoptera borealis*	Nova Scotia	E/D; Y	6,292 (1.015; 3,098; see SAR).	6.2	1
Minke whale	*Balaenoptera acutorostrata*	Canadian East Coast	-/-; N	24,202 (0.3; 18,902; See SAR).	189	8.2
Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Physeteridae:						
Sperm whale	*Physeter macrocephalus*	NA	E; Y	4,349 (0.28; 3,451; See SAR)	3.9	0
Family Delphinidae:						
Long-finned pilot whale	*Globicephala melas*	Western North Atlantic	-/-; Y	39,215 (0.30; 30,627)	306	21
Bottlenose dolphin	*Tursiops truncatus*	Western North Atlantic Offshore.	-/-; N	62,851 (0.23; 51,914; See SAR).	519	28
Common dolphin	*Delphinus delphis*	Western North Atlantic	-/-; N	172,825 (0.21; 145,216; See SAR).	1,452	419
Atlantic white-sided dolphin.	*Lagenorhynchus acutus*	Western North Atlantic	-/-; N	93,233 (0.71; 54,443; See SAR).	544	26
Atlantic spotted dolphin	*Stenella frontalis*	Western North Atlantic	-/-; N	39,921 (0.27; 32,032; 2012)	320	0
Risso's dolphin	*Grampus griseus*	Western North Atlantic	-/-; N	35,493 (0.19; 30,289; See SAR).	303	54.3
Family Phocoenidae (porpoises):						
Harbor porpoise	*Phocoena phocoena*	Gulf of Maine/Bay of Fundy	-/-; N	95,543 (0.31; 74,034; See SAR).	851	217
Order Carnivora—Superfamily Pinnipedia						
Family Phocidae (earless seals):						

TABLE 3—MARINE MAMMALS KNOWN TO OCCUR IN THE SURVEY AREA THAT MAY BE AFFECTED BY ØRSTED'S PROPOSED ACTIVITY—Continued

Common name	Scientific name	Stock	ESA/ MMPA status; strategic (Y/N) [1]	Stock abundance (CV, N_{min}, most recent abundance survey) [2]	PBR [3]	Annual M/SI [3]
Gray seal [4]	*Halichoerus grypus*	Western North Atlantic	-/-; N	27,131 (0.19; 23,158, 2016)	1,389	5,410
Harbor seal	*Phoca vitulina*	Western North Atlantic	-/-; N	75,834 (0.15; 66,884, 2018)	2,006	350

1—Endangered Species Act (ESA) status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

2—NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region/.* CV is coefficient of variation; Nmin is the minimum estimate of stock abundance. In some cases, CV is not applicable.

3—Potential biological removal, defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population size (OSP). Annual M/SI, found in NMFS' SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, subsistence hunting, ship strike). Annual M/SI values often cannot be determined precisely and is in some cases presented as a minimum value. All M/SI values are as presented in the 2020 SARs (Hayes *et al.,* 2020).

4—NMFS stock abundance estimate applies to U.S. population only, actual stock abundance is approximately 505,000.

As indicated below, 15 species (with 15 managed stocks) temporally and spatially co-occur with the survey activities to the degree that take is reasonably likely to occur, and we have proposed authorizing it. The following subsections provide additional information on the biology, habitat use, abundance, distribution, and the existing threats to the non-ESA-listed and ESA-listed marine mammals that are both common in the waters of the outer continental shelf (OCS) of Southern New England, and have the likelihood of occurring, at least seasonally, in the Survey Area. These species include the North Atlantic right, humpback, fin, sei, minke, sperm, and long-finned pilot whale, bottlenose, common, Atlantic white-sided, Atlantic spotted, and Risso's dolphins, harbor porpoise, and gray and harbor seals. Although the potential for interactions with long-finned pilot whales and Atlantic spotted and Risso's dolphins is minimal, small numbers of these species may transit the Survey Area and are included in this analysis.

Cetaceans

North Atlantic Right Whale

The North Atlantic right whale ranges from calving grounds in the southeastern United States to feeding grounds in New England waters and into Canadian waters (Waring *et al.,* 2017). Right whales have been observed in or near southern New England during all four seasons; however, they are most common in the spring when they are migrating north and in the fall during their southbound migration (Kenney and Vigness-Raposa 2009). Surveys have demonstrated the existence of seven areas where North Atlantic right whales congregate seasonally: The coastal waters of the southeastern U.S., the Great South Channel, Jordan Basin, Georges Basin along the northeastern edge of Georges Bank, Cape Cod and Massachusetts Bays, the Bay of Fundy, and the Roseway Basin on the Scotian Shelf (Hayes *et al.,* 2018). In addition, modest late winter use of a region south of Martha's Vineyard and Nantucket Islands was recently described (Stone *et al.,* 2017). NOAA Fisheries has designated two critical habitat areas for the NARW under the ESA: The Gulf of Maine/Georges Bank region, and the southeast calving grounds from North Carolina to Florida.

In the late fall months (*e.g.,* October), right whales are generally thought to depart from the feeding grounds in the North Atlantic and move south to their calving grounds off Georgia and Florida. However, recent research indicates our understanding of their movement patterns remains incomplete (Davis *et al.,* 2017). A review of passive acoustic monitoring data from 2004 to 2014 throughout the western North Atlantic demonstrated nearly continuous year-round right whale presence across their entire habitat range, including in locations previously thought of as migratory corridors, suggesting that not all of the population undergoes a consistent annual migration (Davis *et al.,* 2017). North Atlantic right whales are expected to be present in the proposed survey area during the proposed survey, especially summer months, with numbers possibly lower in the fall. The proposed survey area is part of a Biologically Important Area (BIA) for North Atlantic right whales; this important migratory area is comprised of the waters of the continental shelf offshore the East Coast of the United States and extends from Florida through Massachusetts. A map showing designated BIAs is available at: *https://cetsound.noaa.gov/biologically-important-area-map.*

NMFS' regulations at 50 CFR part 224.105 designated nearshore waters of the Mid-Atlantic Bight as Mid-Atlantic U.S. Seasonal Management Areas (SMA) for right whales in 2008. SMAs were developed to reduce the threat of collisions between ships and right whales around their migratory route and calving grounds. A portion of one SMA overlaps spatially with a section of the proposed Survey Area. The SMA is active from November 1 through April 30 of each year.

The western North Atlantic population demonstrated overall growth of 2.8 percent per year between 1990 to 2010, despite a decline in 1993 and no growth between 1997 and 2000 (Pace *et al.,* 2017). However, since 2010 the population has been in decline, with a 99.99 percent probability of a decline of just under 1 percent per year (Pace *et al.,* 2017). Between 1990 and 2015, calving rates varied substantially, with low calving rates coinciding with all three periods of decline or no growth (Pace *et al.,* 2017). On average, North Atlantic right whale calving rates are estimated to be roughly half that of southern right whales (*Eubalaena australis*) (Pace *et al.,* 2017), which are increasing in abundance (NMFS' SAR 2015). In 2018, no new North Atlantic right whale calves were documented in their calving grounds; this represented the first time since annual NOAA aerial surveys began in 1989 that no new right whale calves were observed. Data indicated that the number of adult females fell from 200 in 2010 to 186 in 2015, while the number of males fell from 283 to 272 in the same time frame (Pace *et al.,* 2017). In addition, elevated North Atlantic right whale mortalities have occurred since June 7, 2017 along the U.S. and Canadian coast. As of July 2020, a total of 31 confirmed dead stranded whales (21 in Canada; 10 in the United States) have been documented. This event has been declared an Unusual Mortality Event

(UME), with human interactions, including entanglement in fixed fishing gear and vessel strikes, implicated in at least 16 of the mortalities thus far. More information is available online at: *www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-north-atlantic-right-whale-unusual-mortality-event.*

Humpback Whale

Humpback whales are found worldwide in all oceans. Humpback whales were listed as endangered under the Endangered Species Conservation Act (ESCA) in June 1970. In 1973, the ESA replaced the ESCA, and humpbacks continued to be listed as endangered. On September 8, 2016, NMFS divided the species into 14 distinct population segments (DPS), removed the current species-level listing, and in its place listed four DPSs as endangered and one DPS as threatened (81 FR 62259; September 8, 2016). The remaining nine DPSs were not listed. The West Indies DPS, which is not listed under the ESA, is the only DPS of humpback whale that is expected to occur in the Survey Area. The best estimate of population abundance for the West Indies DPS is 12,312 individuals, as described in the NMFS Status Review of the Humpback Whale under the Endangered Species Act (Bettridge *et al.,* 2015).

In New England waters, feeding is the principal activity of humpback whales, and their distribution in this region has been largely correlated to abundance of prey species, although behavior and bathymetry are factors influencing foraging strategy (Payne *et al.,* 1986, 1990). Humpback whales are frequently piscivorous when in New England waters, feeding on Herring (*Clupea harengus*), sand lance (*Ammodytes spp.*), and other small fishes, as well as euphausiids in the northern Gulf of Maine (Paquet *et al.,* 1997). During winter, the majority of humpback whales from the North Atlantic feeding area (including the Gulf of Maine) mate and calve in the West Indies, where spatial and genetic mixing among feeding groups occurs, though significant numbers of animals are found in mid- and high-latitude regions at this time and some individuals have been sighted repeatedly within the same winter season, indicating that not all humpback whales migrate south every winter (Waring *et al.,* 2017).

Kraus *et al.* (2016) observed humpbacks in the RI/MA & MA Wind Energy Areas (WEAs) and surrounding areas during all seasons. Humpback whales were observed most often during spring and summer months, with a peak from April to June. Calves were observed 10 times and feeding was observed 10 times during the Kraus *et al.* study (2016). That study also observed one instance of courtship behavior. Although humpback whales were rarely seen during fall and winter surveys, acoustic data indicate that this species may be present within the MA WEA year-round, with the highest rates of acoustic detections in the winter and spring (Kraus *et al.,* 2016). Other sightings of note include 46 sightings of humpback whales in the New York-New Jersey Harbor Estuary documented between 2011–2016 (Brown *et al.,* 2017).

Since January 2016, elevated humpback whale mortalities have occurred along the Atlantic coast from Maine to Florida. The event has been declared a UME. As of July 2020, partial or full necropsy examinations have been conducted on approximately half of the 126 known cases. Of the whales examined, about 50 percent had evidence of human interaction, either ship strike or entanglement. While a portion of the whales have shown evidence of pre-mortem vessel strike, this finding is not consistent across all whales examined and more research is needed. NOAA is consulting with researchers that are conducting studies on the humpback whale populations, and these efforts may provide information on changes in whale distribution and habitat use that could provide additional insight into how these vessel interactions occurred. Three previous UMEs involving humpback whales have occurred since 2000 (in 2003, 2005, and 2006). More information is available at: *www.fisheries.noaa.gov/national/marine-life-distress/2016-2019-humpback-whale-unusual-mortality-event-along-atlantic-coast.* A BIA for humpback whales for feeding has been designated northeast of the lease areas from March through December (LeBreque *et al.,* 2015).

Fin Whale

Fin whales are common in waters of the U.S. Atlantic Exclusive Economic Zone (EEZ), principally from Cape Hatteras northward (Waring *et al.,* 2016). Fin whales are present north of 35-degree latitude in every season and are broadly distributed throughout the western North Atlantic for most of the year (Waring *et al.,* 2016). They are typically found in small groups of up to five individuals (Brueggeman *et al.,* 1987). The main threats to fin whales are fishery interactions and vessel collisions (Waring *et al.,* 2016).

Sei Whale

The Nova Scotia stock of sei whales can be found in deeper waters of the continental shelf edge waters of the northeastern U.S. and northeastward to south of Newfoundland. The southern portion of the stock's range during spring and summer includes the Gulf of Maine and Georges Bank. Spring is the period of greatest abundance in U.S. waters, with sightings concentrated along the eastern margin of Georges Bank and into the Northeast Channel area, and along the southwestern edge of Georges Bank in the area of Hydrographer Canyon (Waring *et al.,* 2015). Sei whales occur in shallower waters to feed. The main threats to this stock are interactions with fisheries and vessel collisions.

Minke Whale

Minke whales can be found in temperate, tropical, and high-latitude waters. The Canadian East Coast stock can be found in the area from the western half of the Davis Strait (45°W) to the Gulf of Mexico (Waring *et al.,* 2016). This species generally occupies waters less than 100 m deep on the continental shelf. There appears to be a strong seasonal component to minke whale distribution in the survey areas, in which spring to fall are times of relatively widespread and common occurrence while during winter the species appears to be largely absent (Waring *et al.,* 2016).

Since January 2017, elevated minke whale mortalities have occurred along the Atlantic coast from Maine through South Carolina. This event has been declared a UME. As of July 2020, partial or full necropsy examinations have been conducted on approximately 60 percent of the 92 known cases. Preliminary findings in several of the whales have shown evidence of human interactions or infectious disease, but these findings are not consistent across all the whales examined, so more research is needed. More information is available at: *www.fisheries.noaa.gov/national/marine-life-distress/2017-2019-minke-whale-unusual-mortality-event-along-atlantic-coast.*

Sperm Whale

The distribution of the sperm whale in the U.S. EEZ occurs on the continental shelf edge, over the continental slope, and into mid-ocean regions (Waring *et al.,* 2014). The basic social unit of the sperm whale appears to be the mixed school of adult females plus their calves and some juveniles of both sexes, normally numbering 20–40 animals in all. There is evidence that

some social bonds persist for many years (Christal *et al.,* 1998). This species forms stable social groups, site fidelity, and latitudinal range limitations in groups of females and juveniles (Whitehead, 2002). In summer, the distribution of sperm whales includes the area east and north of Georges Bank and into the Northeast Channel region, as well as the continental shelf (inshore of the 100 m isobath) south of New England. In the fall, sperm whale occurrence south of New England on the continental shelf is at its highest level, and there remains a continental shelf edge occurrence in the mid-Atlantic bight. In winter, sperm whales are concentrated east and northeast of Cape Hatteras.

Long-Finned Pilot Whale

Long-finned pilot whales are found from North Carolina north to Iceland, Greenland, and the Barents Sea (Waring *et al.,* 2016). In U.S. Atlantic waters, the species is distributed principally along the continental shelf edge off the northeastern U.S. coast in winter and early spring and in late spring, pilot whales move onto Georges Bank and into the Gulf of Maine and more northern waters and remain in these areas through late autumn (Waring *et al.,* 2016).

Atlantic White-Sided Dolphin

White-sided dolphins are found in temperate and sub-polar waters of the North Atlantic, primarily in continental shelf waters to the 100-m depth contour from central West Greenland to North Carolina (Waring *et al.,* 2016). The Gulf of Maine stock is most common in continental shelf waters from Hudson Canyon to Georges Bank, and in the Gulf of Maine and lower Bay of Fundy. Sighting data indicate seasonal shifts in distribution (Northridge *et al.,* 1997). During January to May, low numbers of white-sided dolphins are found from Georges Bank to Jeffreys Ledge (off New Hampshire), with even lower numbers south of Georges Bank, as documented by a few strandings on beaches of Virginia to South Carolina. From June through September, large numbers of white-sided dolphins are found from Georges Bank to the lower Bay of Fundy. From October to December, white-sided dolphins occur at intermediate densities from southern Georges Bank to southern Gulf of Maine (Payne and Heinemann 1990). Sightings south of Georges Bank, particularly around Hudson Canyon, occur year-round, but at low densities.

Atlantic Spotted Dolphin

Atlantic spotted dolphins are found in tropical and warm temperate waters ranging from southern New England south to Gulf of Mexico and the Caribbean to Venezuela (Waring *et al.,* 2014). This stock regularly occurs in continental shelf waters south of Cape Hatteras and in continental shelf edge and continental slope waters north of this region (Waring *et al.,* 2014). There are two forms of this species, with the larger ecotype inhabiting the continental shelf, usually found inside or near the 200 m isobaths (Waring *et al.,* 2014).

Common Dolphin

The common dolphin is found world-wide in temperate to subtropical seas. In the North Atlantic, common dolphins are commonly found over the continental shelf between the 100 m and 2,000 m isobaths and over prominent underwater topography and east to the mid-Atlantic Ridge (Waring *et al.,* 2016).

Bottlenose Dolphin

There are two distinct bottlenose dolphin morphotypes in the western North Atlantic: The coastal and offshore forms (Waring *et al.,* 2016). The migratory coastal morphotype resides in waters typically less than 20 m deep, along the inner continental shelf (within 7.5 km (4.6 miles) of shore), around islands, and is continuously distributed south of Long Island, New York into the Gulf of Mexico. This migratory coastal population is subdivided into 7 stocks based largely upon spatial distribution (Waring *et al.,* 2015). Of these 7 coastal stocks, the Western North Atlantic Migratory Coastal Stock is common in the coastal continental shelf waters off the coastal of New Jersey (Waring *et al.,* 2017). Generally, the offshore migratory morphotype is found exclusively seaward of 34 km (21 miles) and in waters deeper than 34 m (111.5 feet). This morphotype is primarily expected in waters north of Long Island, New York (Waring *et al.,* 2017; Hayes *et al.,* 2017; 2018). The offshore form is distributed primarily along the outer continental shelf and continental slope in the Northwest Atlantic Ocean from Georges Bank to the Florida Keys and is the only type that may be present in the survey area as the survey area is north of the northern extent of the Western North Atlantic Migratory Coastal Stock.

Harbor Porpoise

In the Lease Area, only the Gulf of Maine/Bay of Fundy stock may be present. This stock is found in U.S. and Canadian Atlantic waters and is concentrated in the northern Gulf of Maine and southern Bay of Fundy region, generally in waters less than 150 m deep (Waring *et al.,* 2016). They are seen from the coastline to deep waters (≤1800 m; Westgate and Read 1998), although the majority of the population is found over the continental shelf (Waring *et al.,* 2016). The main threat to the species is interactions with fisheries, with documented take in the U.S. northeast sink gillnet, mid-Atlantic gillnet, and northeast bottom trawl fisheries and in the Canadian herring weir fisheries (Waring *et al.,* 2016).

Pinnipeds

Harbor Seal

The harbor seal is found in all nearshore waters of the North Atlantic and North Pacific Oceans and adjoining seas above about 30° N (Burns, 2009). In the western North Atlantic, harbor seals are distributed from the eastern Canadian Arctic and Greenland south to southern New England and New York, and occasionally to the Carolinas (Waring *et al.,* 2016). Haulout and pupping sites are located off Manomet, MA and the Isles of Shoals, ME, but generally do not occur in areas in southern New England (Waring *et al.,* 2016).

Since July 2018, elevated numbers of harbor seal and gray seal mortalities have occurred across Maine, New Hampshire, and Massachusetts. This event has been declared a UME. Additionally, stranded seals have shown clinical signs as far south as Virginia, although not in elevated numbers; therefore, the UME investigation now encompasses all seal strandings from Maine to Virginia. Lastly, ice seals (harp and hooded seals) have also started stranding with clinical signs, again not in elevated numbers, and those two seal species have also been added to the UME investigation. As of March 2020, a total of 3,152 reported strandings (of all species) had occurred. Full or partial necropsy examinations have been conducted on some of the seals and samples have been collected for testing. Based on tests conducted thus far, the main pathogen found in the seals is phocine distemper virus. NMFS is performing additional testing to identify any other factors that may be involved in this UME. Information on this UME is available online at: *www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/2018-2019-pinniped-unusual-mortality-event-along.*

Gray Seal

There are three major populations of gray seals found in the world: eastern Canada (western North Atlantic stock),

northwestern Europe and the Baltic Sea. Gray seals in the survey area belong to the western North Atlantic stock. The range for this stock is thought to be from New Jersey to Labrador. Current population trends show that gray seal abundance is likely increasing in the U.S. Atlantic EEZ (Waring *et al.,* 2016). Although the rate of increase is unknown, surveys conducted since their arrival in the 1980s indicate a steady increase in abundance in both Maine and Massachusetts (Waring *et al.,* 2016). It is believed that recolonization by Canadian gray seals is the source of the U.S. population (Waring *et al.,* 2016).

As described above, elevated seal mortalities, including gray seals, have occurred from Maine to Virginia since July 2018. This event has been declared a UME, with phocine distemper virus identified as the main pathogen found in the seals. NMFS is performing additional testing to identify any other factors that may be involved in this UME. Information on this UME is available online at: *www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/2018-2019-pinniped-unusual-mortality-event-along.*

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. The functional groups and the associated frequencies are indicated below (note that these frequency ranges correspond to the range for the composite group, with the entire range not necessarily reflecting the capabilities of every species within that group):

- *Low-frequency cetaceans (mysticetes):* Generalized hearing is estimated to occur between approximately 7 Hertz (Hz) and 35 kHz;
- *Mid-frequency cetaceans (larger toothed whales, beaked whales, and most delphinids):* Generalized hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- *High-frequency cetaceans (porpoises, river dolphins, and members of the genera Kogia and Cephalorhynchus; including two members of the genus Lagenorhynchus, on the basis of recent echolocation data and genetic data):* Generalized hearing is estimated to occur between approximately 275 Hz and 160 kHz; and
- *Pinnipeds in water; Phocidae (true seals):* Generalized hearing is estimated to occur between approximately 50 Hz to 86 kHz.

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS Technical Guidance (2018) for a review of available information. Fifteen marine mammal species (thirteen cetacean and two pinnipeds (both phocid) species) have the reasonable potential to co-occur with the proposed survey activities (see Table 3). Of the cetacean species that may be present, five are classified as low-frequency cetaceans (*i.e.,* all mysticete species), seven are classified as mid-frequency cetaceans (*i.e.,* all delphinid species and the sperm whale), and one is classified as a high-frequency cetacean (*i.e.,* harbor porpoise).

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section includes a summary and discussion of the ways that components of the specified activity may impact marine mammals and their habitat. The Estimated Take section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by this activity. The Negligible Impact Analysis and Determination section considers the content of this section, the Estimated Take section, and the Proposed Mitigation section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and how those impacts on individuals are likely to impact marine mammal species or stocks.

Background on Sound

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air or water, and is generally characterized by several variables. Frequency describes the sound's pitch and is measured in Hz or kHz, while sound level describes the sound's intensity and is measured in dB. Sound level increases or decreases exponentially with each dB of change. The logarithmic nature of the scale means that each 10-dB increase is a 10-fold increase in acoustic power (and a 20-dB increase is then a 100-fold increase in power). A 10-fold increase in acoustic power does not mean that the sound is perceived as being 10 times louder, however. Sound levels are compared to a reference sound pressure (micro-Pascal) to identify the medium. For air and water, these reference pressures are ''re: 20 micro Pascals (μPa)'' and ''re: 1 μPa,'' respectively. Root mean square (RMS) is the quadratic mean sound pressure over the duration of an impulse. RMS is calculated by squaring all the sound amplitudes, averaging the squares, and then taking the square root of the average (Urick 1975). RMS accounts for both positive and negative values; squaring the pressures makes all values positive so that they may be accounted for in the summation of pressure levels. This measurement is often used in the context of discussing behavioral effects, in part because behavioral effects, which often result from auditory cues, may be better expressed through averaged units rather than by peak pressures.

When sound travels (propagates) from its source, its loudness decreases as the distance traveled by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of that same sound one km away. Acousticians often refer to the loudness of a sound at its source (typically referenced to one meter from the source) as the source level and the loudness of sound elsewhere as the received level (*i.e.,* typically the receiver). For example, a humpback whale 3 km from a device that has a source level of 230 dB may only be exposed to sound that is 160 dB loud, depending on how the sound travels through water (*e.g.,*

spherical spreading (6 dB reduction with doubling of distance) was used in this example). As a result, it is important to understand the difference between source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual active sonar operations, crews will measure oceanic conditions, such as sea water temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

Acoustic Impacts

Geophysical surveys may temporarily impact marine mammals in the area due to elevated in-water sound levels. Marine mammals are continually exposed to many sources of sound. Naturally occurring sounds such as lightning, rain, sub-sea earthquakes, and biological sounds (*e.g.,* snapping shrimp, whale songs) are widespread throughout the world's oceans. Marine mammals produce sounds in various contexts and use sound for various biological functions including, but not limited to: (1) Social interactions, (2) foraging, (3) orientation, and (4) predator detection. Interference with producing or receiving these sounds may result in adverse impacts. Audible distance, or received levels, of sound depends on the nature of the sound source, ambient noise conditions, and the sensitivity of the receptor to the sound (Richardson *et al.,* 1995). Type and significance of marine mammal reactions to sound are likely dependent on a variety of factors including, but not limited to: (1) The behavioral state of the animal (*e.g.,* feeding, traveling, etc.), (2) frequency of the sound, (3) distance between the animal and the source, and (4) the level of the sound relative to ambient conditions (Southall *et al.,* 2007).

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Current data indicate that not all marine mammal species have equal hearing capabilities (Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). Animals are less sensitive to sounds at the outer edges of their functional hearing range and are more sensitive to a range of frequencies within the middle of their functional hearing range.

Hearing Impairment

Marine mammals may experience temporary or permanent hearing impairment when exposed to loud sounds. Hearing impairment is classified by temporary threshold shift (TTS) and permanent threshold shift (PTS). PTS is considered auditory injury (Southall *et al.,* 2007) and occurs in a specific frequency range and amount. Irreparable damage to the inner or outer cochlear hair cells may cause PTS; however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.,* 2007). There are no empirical data for onset of PTS in any marine mammal; therefore, PTS-onset must be estimated from TTS-onset measurements and from the rate of TTS growth with increasing exposure levels above the level eliciting TTS-onset. PTS is presumed to be likely if the hearing threshold is reduced by ≥40 dB (that is, 40 dB of TTS).

Temporary Threshold Shift (TTS)

TTS is the mildest form of hearing impairment that can occur during exposure to a loud sound (Kryter 1985). While experiencing TTS, the hearing threshold rises, and a sound must be louder in order to be heard. At least in terrestrial mammals, TTS can last from minutes or hours to (in cases of strong TTS) days, can be limited to a particular frequency range, and can occur to varying degrees (*i.e.,* a loss of a certain number of dBs of sensitivity). For sound exposures at or somewhat above the TTS threshold, hearing sensitivities in both terrestrial and marine mammals recover rapidly after exposure to the noise ends.

Marine mammal hearing plays a critical role in communication with conspecifics and in interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (*i.e.,* recovery time), and frequency range of TTS and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious. For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during a time when communication is critical for successful mother/calf interactions could have more serious impacts if it were in the same frequency band as the necessary vocalizations and of a severity that it impeded communication. The fact that animals exposed to levels and durations of sound that would be expected to result in this physiological response would also be expected to have behavioral responses of a comparatively more severe or sustained nature is also notable and potentially of more importance than the simple existence of a TTS.

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin, beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocaena phocaenoides*)) and three species of pinnipeds (northern elephant seal (*Mirounga angustirostris*), harbor seal, and California sea lion (*Zalophus californianus*)) exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise) in laboratory settings (*e.g.,* Finneran *et al.,* 2002 and 2010; Nachtigall *et al.,* 2004; Kastak *et al.,* 2005; Lucke *et al.,* 2009; Mooney *et al.,* 2009a,b; Popov *et al.,* 2011; Finneran and Schlundt, 2010). In general, harbor seals (Kastak *et al.,* 2005; Kastelein *et al.,* 2012a) and harbor porpoises (Lucke *et al.,* 2009; Kastelein *et al.,* 2012b) have a lower TTS onset than other measured pinniped or cetacean species. However, even for these animals, which are better able to hear higher frequencies and may be more sensitive to higher frequencies, exposures on the order of approximately 170 dB_{rms} or higher for brief transient signals are likely required for even temporary (recoverable) changes in hearing sensitivity that would likely not be categorized as physiologically damaging (Lucke *et al.,* 2009).

Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species. There are no data available on noise-induced hearing loss for mysticetes. For summaries of data on TTS in marine mammals or for further discussion of TTS onset thresholds, please see Finneran (2015).

Scientific literature highlights the inherent complexity of predicting TTS onset in marine mammals, as well as the importance of considering exposure duration when assessing potential impacts (Mooney *et al.,* 2009a, 2009b; Kastak *et al.,* 2007). Generally, with sound exposures of equal energy, quieter sounds (lower sound pressure levels (SPL)) of longer duration were found to induce TTS onset more than louder sounds (higher SPL) of shorter duration (more similar to sub-bottom profilers). For intermittent sounds, less threshold shift will occur than from a continuous exposure with the same energy (some recovery will occur between intermittent exposures) (Kryter *et al.,* 1966; Ward 1997). For sound exposures at or somewhat above the TTS-onset threshold, hearing sensitivity recovers rapidly after exposure to the sound ends; intermittent exposures recover faster in comparison with continuous exposures of the same duration (Finneran *et al.,* 2010). NMFS considers TTS as Level B harassment that is mediated by physiological effects on the auditory system.

Animals in the Survey Area during the HRG survey are unlikely to incur TTS hearing impairment due to the characteristics of the sound sources, which include relatively low source levels (176 to 232 dB re 1 μPa-m) and generally very short pulses and duration of the sound. Even for high-frequency cetacean species (*e.g.,* harbor porpoises), which may have increased sensitivity to TTS (Lucke *et al.,* 2009; Kastelein *et al.,* 2012b), individuals would have to make a very close approach and also remain very close to vessels operating these sources in order to receive multiple exposures at relatively high levels, as would be necessary to cause TTS. Intermittent exposures—as would occur due to the brief, transient signals produced by these sources—require a higher cumulative SEL to induce TTS than would continuous exposures of the same duration (*i.e.,* intermittent exposure results in lower levels of TTS) (Mooney *et al.,* 2009a; Finneran *et al.,* 2010). Moreover, most marine mammals would more likely avoid a loud sound source rather than swim in such close proximity as to result in TTS. Kremser *et al.* (2005) noted that the probability of a cetacean swimming through the area of exposure when a sub-bottom profiler emits a pulse is small—because if the animal was in the area, it would have to pass the transducer at close range in order to be subjected to sound levels that could cause TTS and would likely exhibit avoidance behavior to the area near the transducer rather than swim through at such a close range. Further, the restricted beam shape of the majority of the geophysical survey equipment planned for use (Table 2) makes it unlikely that an animal would be exposed more than briefly during the passage of the vessel.

Masking

Masking is the obscuring of sounds of interest to an animal by other sounds, typically at similar frequencies. Marine mammals are highly dependent on sound, and their ability to recognize sound signals amid other sound is important in communication and detection of both predators and prey (Tyack 2000). Background ambient sound may interfere with or mask the ability of an animal to detect a sound signal even when that signal is above its absolute hearing threshold. Even in the absence of anthropogenic sound, the marine environment is often loud. Natural ambient sound includes contributions from wind, waves, precipitation, other animals, and (at frequencies above 30 kHz) thermal sound resulting from molecular agitation (Richardson *et al.,* 1995).

Background sound may also include anthropogenic sound, and masking of natural sounds can result when human activities produce high levels of background sound. Conversely, if the background level of underwater sound is high (*e.g.,* on a day with strong wind and high waves), an anthropogenic sound source would not be detectable as far away as would be possible under quieter conditions and would itself be masked. Ambient sound is highly variable on continental shelves (Myrberg 1978; Desharnais *et al.,* 1999). This results in a high degree of variability in the range at which marine mammals can detect anthropogenic sounds.

Although masking is a phenomenon which may occur naturally, the introduction of loud anthropogenic sounds into the marine environment at frequencies important to marine mammals increases the severity and frequency of occurrence of masking. For example, if a baleen whale is exposed to continuous low-frequency sound from an industrial source, this would reduce the size of the area around that whale within which it can hear the calls of another whale. The components of background noise that are similar in frequency to the signal in question primarily determine the degree of masking of that signal. In general, little is known about the degree to which marine mammals rely upon detection of sounds from conspecifics, predators, prey, or other natural sources. In the absence of specific information about the importance of detecting these natural sounds, it is not possible to predict the impact of masking on marine mammals (Richardson *et al.,* 1995). In general, masking effects are expected to be less severe when sounds are transient than when they are continuous. Masking is typically of greater concern for those marine mammals that utilize low-frequency communications, such as baleen whales, because of how far low-frequency sounds propagate.

Marine mammal communications would not likely be masked appreciably by the sub-bottom profiler signals given the directionality of the signals for most geophysical survey equipment types planned for use (Table 2) and the brief period when an individual mammal is likely to be within its beam.

Non-Auditory Physical Effects (Stress)

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg 2000; Seyle 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune responses.

In the case of many stressors, an animal's first and sometimes most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical ''fight or flight'' response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with ''stress.'' These responses have a relatively short duration and may or may not have significant long-term effect on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine systems; the system that has received the most study has been the hypothalamus-pituitary-adrenal system (also known as the HPA axis in mammals). Unlike stress responses associated with the autonomic nervous system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction (Moberg 1987; Rivier 1995), reduced immune competence (Blecha 2000), and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.,* 2004) have been long been equated with stress.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic function, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called ''distress'' (Seyle 1950) or ''allostatic loading'' (McEwen and Wingfield 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function. Note that these examples involved a long-term (days or weeks) stress response exposure to stimuli.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiments; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been documented in both laboratory and free-living animals (for examples see, Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005; Reneerkens *et al.,* 2002; Thompson and Hamer, 2000). Information has also been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds (Fair and Becker 2000; Romano *et al.,* 2004). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales.

Studies of other marine animals and terrestrial animals would also lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as ''distress'' upon exposure to high frequency, mid-frequency, and low-frequency sounds. For example, Jansen (1998) reported on the relationship between acoustic exposures and physiological responses that are indicative of stress responses in humans (*e.g.,* elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimper *et al.* (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.* (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.* (2004a, 2004b), for example, identified noise-induced physiological transient stress responses in hearing-specialist fish (*i.e.,* goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress responses (Moberg 2000), we also assume that stress responses are likely to persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

In general, there are few data on the potential for strong, anthropogenic underwater sounds to cause non-auditory physical effects in marine mammals. The available data do not allow identification of a specific exposure level above which non-auditory effects can be expected (Southall *et al.,* 2007). There is currently no definitive evidence that any of these effects occur even for marine mammals in close proximity to an anthropogenic sound source. In addition, marine mammals that show behavioral avoidance of survey vessels and related sound sources are unlikely to incur non-auditory impairment or other physical effects. NMFS does not expect that the generally short-term, intermittent, and transitory HRG and geotechnical activities would create conditions of long-term, continuous noise and chronic acoustic exposure leading to long-term physiological stress responses in marine mammals.

Behavioral Disturbance

Behavioral disturbance may include a variety of effects, including subtle changes in behavior (*e.g.,* minor or brief avoidance of an area or changes in vocalizations), more conspicuous changes in similar behavioral activities, and more sustained and/or potentially severe reactions, such as displacement from or abandonment of high-quality habitat. Behavioral responses to sound are highly variable and context-specific and any reactions depend on numerous intrinsic and extrinsic factors (*e.g.,* species, state of maturity, experience, current activity, reproductive state, auditory sensitivity, time of day), as well as the interplay between factors (*e.g.,* Richardson *et al.,* 1995; Wartzok *et al.,* 2003; Southall *et al.,* 2007; Weilgart 2007; Archer *et al.,* 2010). Behavioral reactions can vary not only among individuals but also within an individual, depending on previous experience with a sound source, context, and numerous other factors (Ellison *et al.,* 2012), and can vary depending on characteristics associated with the sound source (*e.g.,* whether it

is moving or stationary, number of sources, distance from the source). Please see Appendices B–C of Southall *et al.* (2007) for a review of studies involving marine mammal behavioral responses to sound.

Habituation can occur when an animal's response to a stimulus wanes with repeated exposure, usually in the absence of unpleasant associated events (Wartzok *et al.,* 2003). Animals are most likely to habituate to sounds that are predictable and unvarying. It is important to note that habituation is appropriately considered as a ''progressive reduction in response to stimuli that are perceived as neither aversive nor beneficial,'' rather than as, more generally, moderation in response to human disturbance (Bejder *et al.,* 2009). The opposite process is sensitization, when an unpleasant experience leads to subsequent responses, often in the form of avoidance, at a lower level of exposure. As noted, behavioral state may affect the type of response. For example, animals that are resting may show greater behavioral change in response to disturbing sound levels than animals that are highly motivated to remain in an area for feeding (Richardson *et al.,* 1995; NRC 2003; Wartzok *et al.,* 2003). Controlled experiments with captive marine mammals have shown pronounced behavioral reactions, including avoidance of loud sound sources (Ridgway *et al.,* 1997; Finneran *et al.,* 2003). Observed responses of wild marine mammals to loud, pulsed sound sources (typically seismic airguns or acoustic harassment devices) have been varied but often consist of avoidance behavior or other behavioral changes suggesting discomfort (Morton and Symonds, 2002; see also Richardson *et al.,* 1995; Nowacek *et al.,* 2007).

Available studies show wide variation in response to underwater sound; therefore, it is difficult to predict specifically how any given sound in a particular instance might affect marine mammals perceiving the signal. If a marine mammal does react briefly to an underwater sound by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, let alone the stock or population. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (*e.g.,* Lusseau and Bejder, 2007; Weilgart 2007; NRC 2005). However, there are broad categories of potential response, which we describe in greater detail here, that include alteration of dive behavior, alteration of foraging behavior, effects to breathing, interference with or alteration of vocalization, avoidance, and flight.

Changes in dive behavior can vary widely and may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive (*e.g.,* Frankel and Clark 2000; Costa *et al.,* 2003; Ng and Leung 2003; Nowacek *et al.,* 2004; Goldbogen *et al.,* 2013a,b). Variations in dive behavior may reflect interruptions in biologically significant activities (*e.g.,* foraging) or they may be of little biological significance. The impact of an alteration to dive behavior resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (*e.g.,* bubble nets or sediment plumes), or changes in dive behavior. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in response in any given circumstance (*e.g.,* Croll *et al.,* 2001; Nowacek *et al.;* 2004; Madsen *et al.,* 2006; Yazvenko *et al.,* 2007). A determination of whether foraging disruptions incur fitness consequences would require information on or estimates of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Variations in respiration naturally vary with different behaviors and alterations to breathing rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Various studies have shown that respiration rates may either be unaffected or could increase, depending on the species and signal characteristics, again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure (*e.g.,* Kastelein *et al.,* 2001, 2005b, 2006; Gailey *et al.,* 2007).

Marine mammals vocalize for different purposes and across multiple modes, such as whistling, echolocation click production, calling, and singing. Changes in vocalization behavior in response to anthropogenic noise can occur for any of these modes and may result from a need to compete with an increase in background noise or may reflect increased vigilance or a startle response. For example, in the presence of potentially masking signals, humpback whales and killer whales have been observed to increase the length of their vocalizations (Miller *et al.,* 2000; Fristrup *et al.,* 2003; Foote *et al.,* 2004), while right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.,* 2007). In some cases, animals may cease sound production during production of aversive signals (Bowles *et al.,* 1994).

Avoidance is the displacement of an individual from an area or migration path as a result of the presence of a sound or other stressor and is one of the most obvious manifestations of disturbance in marine mammals (Richardson *et al.,* 1995). For example, gray whales are known to change direction—deflecting from customary migratory paths—in order to avoid noise from seismic surveys (Malme *et al.,* 1984). Avoidance may be short-term, with animals returning to the area once the noise has ceased (*e.g.,* Bowles *et al.,* 1994; Goold 1996; Stone *et al.,* 2000; Morton and Symonds, 2002; Gailey *et al.,* 2007). Longer-term displacement is possible, however, which may lead to changes in abundance or distribution patterns of the affected species in the affected region if habituation to the presence of the sound does not occur (*e.g.,* Blackwell *et al.,* 2004; Bejder *et al.,* 2006; Teilmann *et al.,* 2006).

A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. The flight response differs from other avoidance responses in the intensity of the response (*e.g.,* directed movement, rate of travel). Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996). The result of a flight response could range from brief, temporary exertion and displacement from the area where the signal provokes flight to, in extreme cases, marine mammal strandings (Evans and England, 2001). However, it should be noted that response to a perceived predator does not necessarily invoke flight (Ford and Reeves, 2008) and

whether individuals are solitary or in groups may influence the response.

Behavioral disturbance can also impact marine mammals in more subtle ways. Increased vigilance may result in costs related to diversion of focus and attention (*i.e.,* when a response consists of increased vigilance, it may come at the cost of decreased attention to other critical behaviors such as foraging or resting). These effects have generally not been demonstrated for marine mammals, but studies involving fish and terrestrial animals have shown that increased vigilance may substantially reduce feeding rates (*e.g.,* Beauchamp and Livoreil 1997; Fritz *et al.,* 2002; Purser and Radford 2011). In addition, chronic disturbance can cause population declines through reduction of fitness (*e.g.,* decline in body condition) and subsequent reduction in reproductive success, survival, or both (*e.g.,* Harrington and Veitch, 1992; Daan *et al.,* 1996; Bradshaw *et al.,* 1998). However, Ridgway *et al.* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a five-day period did not cause any sleep deprivation or stress effects.

Many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hour cycle). Disruptions of such functions resulting from reactions to stressors such as sound exposure are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.,* 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007). Note that there is a difference between multi-day substantive behavioral reactions and multi-day anthropogenic activities. For example, just because an activity lasts for multiple days does not necessarily mean that individual animals are either exposed to activity-related stressors for multiple days or, further, exposed in a manner resulting in sustained multi-day substantive behavioral responses.

Marine mammals are likely to avoid the HRG survey activity, especially the naturally shy harbor porpoise, while harbor seals might be attracted to survey vessels out of curiosity. However, because the sub-bottom profilers and other HRG survey equipment operate from a moving vessel, and the maximum radius to the Level B harassment threshold is relatively small, the area and time that this equipment would be affecting a given location is very small. Further, once an area has been surveyed, it is not likely that it will be surveyed again, thereby reducing the likelihood of repeated HRG-related impacts within the survey area.

We have also considered the potential for severe behavioral responses such as stranding and associated indirect injury or mortality from Ørsted's use of HRG survey equipment, on the basis of a 2008 mass stranding of approximately 100 melon-headed whales in a Madagascar lagoon system. An investigation of the event indicated that use of a high-frequency mapping system (12-kHz multibeam echosounder) was the most plausible and likely initial behavioral trigger of the event, while providing the caveat that there is no unequivocal and easily identifiable single cause (Southall *et al.,* 2013). The investigatory panel's conclusion was based on: (1) Very close temporal and spatial association and directed movement of the survey with the stranding event. (2) the unusual nature of such an event coupled with previously documented apparent behavioral sensitivity of the species to other sound types (Southall *et al.,* 2006; Brownell *et al.,* 2009), and (3) the fact that all other possible factors considered were determined to be unlikely causes. Specifically, regarding survey patterns prior to the event and in relation to bathymetry, the vessel transited in a north-south direction on the shelf break parallel to the shore, ensonifying large areas of deep-water habitat prior to operating intermittently in a concentrated area offshore from the stranding site; this may have trapped the animals between the sound source and the shore, thus driving them towards the lagoon system. The investigatory panel systematically excluded or deemed highly unlikely nearly all other potential reasons for these animals leaving their typical pelagic habitat for an area extremely atypical for the species (*i.e.,* a shallow lagoon system). Notably, this was the first time that such a system has been associated with a stranding event. The panel also noted several site- and situation-specific secondary factors that may have contributed to the avoidance responses that led to the eventual entrapment and mortality of the whales. Specifically, shoreward-directed surface currents and elevated chlorophyll levels in the area preceding the event may have played a role (Southall *et al.,* 2013). The report also notes that prior use of a similar system in the general area may have sensitized the animals and also concluded that, for odontocete cetaceans that hear well in higher frequency ranges where ambient noise is typically quite low, high-power active sonars operating in this range may be more easily audible and have potential effects over larger areas than low frequency systems that have more typically been considered in terms of anthropogenic noise impacts. It is, however, important to note that the relatively lower output frequency, higher output power, and complex nature of the system implicated in this event, in context of the other factors noted here, likely produced a fairly unusual set of circumstances that indicate that such events would likely remain rare and are not necessarily relevant to use of lower-power, higher-frequency systems more commonly used for HRG survey applications. The risk of similar events recurring may be very low, given the extensive use of active acoustic systems used for scientific and navigational purposes worldwide on a daily basis and the lack of direct evidence of such responses previously reported.

Tolerance

Numerous studies have shown that underwater sounds from industrial activities are often readily detectable by marine mammals in the water at distances of many km. However, other studies have shown that marine mammals at distances more than a few km away often show no apparent response to industrial activities of various types (Miller *et al.,* 2005). This is often true even in cases when the sounds must be readily audible to the animals based on measured received levels and the hearing sensitivity of that mammal group. Although various baleen whales, toothed whales, and (less frequently) pinnipeds have been shown to react behaviorally to underwater sound from sources such as airgun pulses or vessels under some conditions, at other times, mammals of all three types have shown no overt reactions (*e.g.,* Malme *et al.,* 1986; Richardson *et al.,* 1995; Madsen and Mohl 2000; Croll *et al.,* 2001; Jacobs and Terhune 2002; Madsen *et al.,* 2002; Miller *et al.,* 2005). In general, pinnipeds seem to be more tolerant of exposure to some types of underwater sound than are baleen whales. Richardson *et al.* (1995) found that vessel sound does not seem to affect pinnipeds that are already in the water. Richardson *et al.* (1995) went on to explain that seals on haul-outs sometimes respond strongly to the presence of vessels and at other times appear to show considerable tolerance of vessels, and Brueggeman *et al.* (1992) observed ringed seals (*Pusa hispida*) hauled out on ice pans displaying short-term escape reactions when a ship

approached within 0.16–0.31 miles (0.25–0.5 km). Due to the relatively high vessel traffic in the Survey Area it is possible that marine mammals are habituated to noise (*e.g.,* DP thrusters) from vessels in the area.

Vessel Strike

Ship strikes of marine mammals can cause major wounds, which may lead to the death of the animal. An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or a vessel's propeller could injure an animal just below the surface. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus 2001; Laist *et al.,* 2001; Vanderlaan and Taggart 2007).

The most vulnerable marine mammals are those that spend extended periods of time at the surface in order to restore oxygen levels within their tissues after deep dives (*e.g.,* the sperm whale). In addition, some baleen whales, such as the North Atlantic right whale, seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.,* 2004). These species are primarily large, slow moving whales. Smaller marine mammals (*e.g.,* bottlenose dolphin) move quickly through the water column and are often seen riding the bow wave of large ships. Marine mammal responses to vessels may include avoidance and changes in dive pattern (NRC 2003).

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike results in death (Knowlton and Kraus 2001; Laist *et al.,* 2001; Jensen and Silber 2003; Vanderlaan and Taggart 2007). In assessing records with known vessel speeds, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision. The authors concluded that most deaths occurred when a vessel was traveling in excess of 24.1 km/h (14.9 mph; 13 kn). Given the slow vessel speeds and predictable course necessary for data acquisition, ship strike is unlikely to occur during the geophysical surveys. Marine mammals would be able to easily avoid the survey vessel due to the slow vessel speed. Further, Ørsted would implement measures (*e.g.,* protected species monitoring, vessel speed restrictions and separation distances; see Proposed Mitigation) set forth in the BOEM lease to reduce the risk of a vessel strike to marine mammal species in the survey area.

Marine Mammal Habitat

The HRG survey equipment will not contact the seafloor and does not represent a source of pollution. We are not aware of any available literature on impacts to marine mammal prey from sound produced by HRG survey equipment. However, as the HRG survey equipment introduces noise to the marine environment, there is the potential for it to result in avoidance of the area around the HRG survey activities on the part of marine mammal prey. Any avoidance of the area on the part of marine mammal prey would be expected to be short term and temporary.

Because of the temporary nature of the disturbance, and the availability of similar habitat and resources (*e.g.,* prey species) in the surrounding area, the impacts to marine mammals and the food sources that they utilize are not expected to cause significant or long-term consequences for individual marine mammals or their populations. Impacts on marine mammal habitat from the proposed activities will be temporary, insignificant, and discountable.

Estimated Take

This section provides an estimate of the number of incidental takes proposed for authorization through this IHA, which will inform both NMFS' consideration of ''small numbers'' and the negligible impact determination.

Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines ''harassment'' as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment), or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Authorized takes would be by Level B harassment only, in the form of disruption of behavioral patterns for individual marine mammals resulting from exposure to noise from certain HRG sources. Based on the nature of the activity and the anticipated effectiveness of the mitigation measures (*i.e.,* exclusion zones and shutdown measures), discussed in detail below in Proposed Mitigation section, Level A harassment or and/or mortality is neither anticipated nor proposed to be authorized. Below we describe how the take is estimated.

Generally speaking, we estimate take by considering: (1) Acoustic thresholds recommended by NMFS for use in evaluating when marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment, (2) the area or volume of water that will be ensonified above these levels in a day, (3) the density or occurrence of marine mammals within these ensonified area, and (4) and the number of days of activities. We note that while these basic factors can contribute to a basic calculation to provide an initial prediction of takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the proposed take estimate.

Acoustic Thresholds

NMFS recommends use of acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur PTS of some degree (equated to Level A harassment).

Level B Harassment for non-explosive sources—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (*e.g.,* frequency, predictability, duty cycle), the environment (*e.g.,* bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Southall *et al.,* 2007, Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 microPascal root mean square (μPa rms) for continuous (*e.g.,* vibratory driving, drilling) and above 160 dB re 1 μPa (rms) for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent sources (*e.g.,* scientific sonar) sources. Ørsted's proposed activity includes the use of intermittent sources, therefore the 160 dB re 1 μPa (rms) threshold is

applicable. Some of the sources planned for use (*i.e.,* sparkers and boomers) are also impulsive.

Level A harassment for non-explosive sources—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (NMFS, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). As mentioned previously, Ørsted's proposed activity includes the use of impulsive (*e.g.,* sparkers and boomers) and non-impulsive intermittent (*e.g.,* CHIRP SBPs) sources.

These thresholds are provided in Table 4 below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS 2018 Technical Guidance, which may be accessed at: *www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 4—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset acoustic thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{pk,flat}$: 219 dB; $L_{E,LF,24h}$: 183 dB	*Cell 2:* $L_{E,LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{pk,flat}$: 230 dB; $L_{E,MF,24h}$: 185 dB	*Cell 4:* $L_{E,MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{pk,flat}$: 202 dB; $L_{E,HF,24h}$: 155 dB	*Cell 6:* $L_{E,HF,24h}$: 173 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{pk,flat}$: 218 dB; $L_{E,PW,24h}$: 185 dB	*Cell 8:* $L_{E,PW,24h}$: 201 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{pk,flat}$: 232 dB; $L_{E,OW,24h}$: 203 dB	*Cell 10:* $L_{E,OW,24h}$: 219 dB.

* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.

Note: Peak sound pressure (L_{pk}) has a reference value of 1 μPa, and cumulative sound exposure level (L_E) has a reference value of 1μPa^{2}s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds (L_E) indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that will feed into identifying the area ensonified above the acoustic thresholds, which include sources levels and transmission loss coefficient.

NMFS has developed a user-friendly methodology for determining the rms sound pressure level (SPL_{rms}) at the 160-dB isopleth for the purposes of estimating the extent of Level B harassment isopleths associated with HRG survey equipment (NMFS, 2020). This methodology incorporates frequency and some directionality to refine estimated ensonified zones. Ørsted used NMFS's methodology with additional modifications to incorporate a seawater absorption formula and account for energy emitted outside of the primary beam of the source. For sources that operate with different beam widths, the maximum beam width was used (see Table 2). The lowest frequency of the source was used when calculating the absorption coefficient (Table 2).

NMFS considers the data provided by Crocker and Fratantonio (2016) to represent the best available information on source levels associated with HRG equipment and, therefore, recommends that source levels provided by Crocker and Fratantonio (2016) be incorporated in the method described above to estimate isopleth distances to the Level A and Level B harassment thresholds. In cases when the source level for a specific type of HRG equipment is not provided in Crocker and Fratantonio (2016), NMFS recommends that either the source levels provided by the manufacturer be used, or, in instances where source levels provided by the manufacturer are unavailable or unreliable, a proxy from Crocker and Fratantonio (2016) be used instead. Table 2 shows the HRG equipment types that may be used during the proposed surveys and the sound levels associated with those HRG equipment types.

Results of modeling using the methodology described above indicated that, of the HRG survey equipment planned for use by Ørsted that has the potential to result in Level B harassment of marine mammals, sound produced by the Applied Acoustics Dura-Spark UHD sparkers and GeoMarine Geo-Source sparker would propagate furthest to the Level B harassment threshold (141 m; Table 5). As described above, only a portion of Ørsted's survey activity days will employ sparkers or boomers; therefore, for the purposes of the exposure analysis, it was assumed that sparkers would be the dominant acoustic source for approximately 701 of the total 1,302 survey activity days. For the remaining 601 survey days, the TB Chirp III (54 m; Table 5) was assumed to be the dominant source. Thus, the distances to the isopleths corresponding to the threshold for Level B harassment for sparkers (141 m) and the TB Chirp III (54 m) were used as the basis of the take calculation for all marine mammals for 54% and 46% of survey activity days, respectively.

TABLE 5—MODELED RADIAL DISTANCES FROM HRG SURVEY EQUIPMENT TO ISOPLETHS CORRESPONDING TO LEVEL A HARASSMENT AND LEVEL B HARASSMENT THRESHOLDS

Sound source	Radial distance to level A harassment threshold (m)*				Radial distance to level B harassment threshold (m)
	Low frequency cetaceans	Mid frequency cetaceans	High frequency cetaceans	Phocid pinnipeds (underwater)	All marine mammals
ET 216 CHIRP	<1	<1	2.9	0	12
ET 424 CHIRP	0	0	0	0	4
ET 512i CHIRP	0	0	<1	0	6
GeoPulse 5430	<1	<1	36.5	<1	29
TB CHIRP III	<1	<1	16.9	<1	54
Innomar Parametric SBPs	<1	<1	1.7	<1	4
AA Triple plate S-Boom (700/1,000 J)	<1	0	4.7	<1	76
AA, Dura-spark UHD (500 J/400 tip)	<1	0	2.8	<1	141
AA, Dura-spark UHD 400+400	<1	0	2.8	<1	141
GeoMarine, Geo-Source dual 400 tip sparker	<1	0	2.8	<1	141
Pangeo Acoustic Corer (LF CHIRP)	<1	0	<1	<1	4
Pangeo Acoustic Corer (HF CHIRP)	<1	<1	<1	<1	4
USBL (all models)	0	0	1.7	0	50

* AA = Applied Acoustics; CHIRP = Compressed High-Intensity Radiated Pulse; ET = EdgeTech; SBP = Sub-bottom Profiler; TB = Teledyne Benthos; UHD = Ultra-high Definition; USBL = Ultra-short Baseline. Distances to the Level A harassment threshold based on the larger of the dual criteria (peak SPL and SEL_{cum}) are shown.

Isopleth distances to Level A harassment thresholds for all types of HRG equipment and all marine mammal functional hearing groups were modeled using the NMFS User Spreadsheet and NMFS Technical Guidance (2018). The dual criteria (peak SPL and SEL_{cum}) were applied to all HRG sources using the modeling methodology as described above, and the isopleth distances for each functional hearing group were then carried forward in the exposure analysis. For the GeoMarine Geo-Source dual 400 tip sparker, Applied Acoustics Triple plate S-Boom and Dura-Spark models, the peak SPL metric resulted in larger isopleth distances for the high frequency hearing group; for all other HRG sources, the SEL_{cum} metric resulted in larger isopleth distances. Distances to the Level A harassment threshold based on the larger of the dual criteria (peak SPL and SEL_{cum}) are shown in Table 5.

Distances to the Level A harassment threshold for Innomar were calculated using a Matlab-based numerical model. Cumulative sound exposure level from a moving source to an assumed stationary marine mammal was calculated based on the safe distance method described in Sivle et al. (2015), with modifications to include absorption loss and beamwidth. The cumulative received level was then frequency weighted using the NMFS (2018) frequency weighting function for each marine mammal functional hearing group. Finally, the safe horizontal distance (*i.e.,* isopleth distance to the Level A harassment threshold) was determined numerically at a point where the SEL_{cum} would not exceed the 24-hour $SEL_{cum.}$

Modeled distances to isopleths corresponding to the Level A harassment threshold are very small (<1 m) for three of the four marine mammal functional hearing groups that may be impacted by the proposed activities (*i.e.,* low frequency and mid frequency cetaceans, and phocid pinnipeds; see Table 5). Based on the extremely small Level A harassment zones for these functional hearing groups, the potential for species within these functional hearing groups to be taken by Level A harassment is considered so low as to be discountable. These three functional hearing groups encompass all but one of the marine mammal species listed in Table 3 that may be impacted by the proposed activities. There is one species (harbor porpoise) within the high frequency functional hearing group that may be impacted by the proposed activities. However, the largest modeled distance to the Level A harassment threshold for the high frequency functional hearing group was only 36.5 m (Table 5). As noted above, modeled distances to isopleths corresponding to the Level A harassment threshold are also assumed to be conservative. Level A harassment would also be more likely to occur at close approach to the sound source or as a result of longer duration exposure to the sound source, and mitigation measures—including a 100 m exclusion zone for harbor porpoises—are expected to minimize the potential for close approach or longer duration exposure to active HRG sources. In addition, harbor porpoises are a notoriously shy species which is known to avoid vessels. Harbor porpoise would also be expected to avoid a sound source prior to that source reaching a level that would result in injury (Level A harassment). Therefore, we have determined that the potential for take by Level A harassment of harbor porpoises is so low as to be discountable. As NMFS has determined that the likelihood of take of any marine mammals in the form of Level A harassment occurring as a result of the proposed surveys is so low as to be discountable, we therefore do not propose to authorize the take by Level A harassment of any marine mammals. For more information about Level A harassment exposure estimation, please see section 6.2.1 of the IHA application.

Marine Mammal Occurrence

In this section we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations.

The habitat-based density models produced by the Duke University Marine Geospatial Ecology Laboratory (Roberts *et al.,* 2016a,b, 2017, 2018) represent the best available information regarding marine mammal densities in the proposed survey area. The density data presented by Roberts *et al.* (2016a,b, 2017, 2018) incorporates aerial and shipboard line-transect survey data from NMFS and other organizations and incorporates data from 8 physiographic and 16 dynamic oceanographic and biological covariates, and controls for

the influence of sea state, group size, availability bias, and perception bias on the probability of making a sighting. These density models were originally developed for all cetacean taxa in the U.S. Atlantic (Roberts *et al.,* 2016a,b). In subsequent years, certain models have been updated based on additional data as well as certain methodological improvements. More information is available online at *seamap.env.duke.edu/models/Duke-EC-GOM-2015/.* Marine mammal density estimates in the Survey Area (animals/km^2) were obtained using the most recent model results for all taxa (Roberts *et al.,* 2016b, 2017, 2018). The updated models incorporate additional sighting data, including sightings from the NOAA Atlantic Marine Assessment Program for Protected Species (AMAPPS) surveys from 2010–2014 (NEFSC & SEFSC, 2011, 2012, 2014a, 2014b, 2015, 2016).

For the exposure analysis, density data from Roberts *et al.* (2016b, 2017, 2018) were mapped using a geographic information system (GIS). Density grid cells that included any portion of the proposed Survey Area were selected for all survey months. Densities for the recently split Lease Areas OCS–A 0486 and OCS–A 0517 were combined, as the Lease Areas occupy the same habitat and densities and, therefore, overlap. For each of the survey areas (*i.e.,* OCS–A 0486/0517, OCS–A 0487. OCS–A 0500, and ECR Area), the densities of each species as reported by Roberts *et al.* (2016b, 2017, 2018) were averaged by month; those values were then used to calculate a mean annual density for each species for each segment of the Survey Area. Estimated mean monthly and annual densities (animals per km^2) of all marine mammal species that may be taken by the proposed survey, for all survey areas, are shown in Tables 8, 9, 10, and 11 of the IHA application. The mean annual density values used to estimate take numbers are shown in Table 6 below.

For bottlenose dolphin densities, Roberts *et al.* (2016b 2017, 2018) does not differentiate by stock. The Western North Atlantic northern migratory coastal stock primarily occurs in coastal waters from the shoreline to approximately the 20 m isobath (Hayes *et al.,* 2018). As the Lease Area is located north of the northern extent of the range of the Western North Atlantic Migratory Coastal Stock and within depths exceeding 20 m, where only the offshore stock would be expected to occur, all calculated bottlenose dolphin exposures within the Lease Area are expected to be from the offshore stock. Similarly, Roberts *et al.* (2018) produced density models for all seals but did not differentiate by seal species. Because the seasonality and habitat use by gray seals roughly overlaps with that of harbor seals in the survey areas, it was assumed that the mean annual density of seals could refer to either of the respective species and was, therefore, divided equally between the two species.

TABLE 6—MEAN ANNUAL MARINE MAMMAL DENSITIES (NUMBER OF ANIMALS PER 100 km^2) IN THE SURVEY AREAS

Species	OCS–A 0486/0517	OCS–A 0487	OCS–A 0500	ECR Area
North Atlantic right whale	0.21	0.19	0.18	0.07
Humpback whale	0.14	0.13	0.12	0.05
Fin whale	0.21	0.26	0.27	0.15
Sei whale	0.01	0.01	0.02	0.01
Minke whale	0.05	0.06	0.07	0.04
Sperm Whale	0.01	0.01	0.01	0.01
Pilot whale	0.16	0.33	0.68	0.37
Bottlenose dolphin	1.17	0.77	0.72	3.51
Common dolphin	4.68	7.58	4.40	2.60
Atlantic white-sided dolphin	1.46	2.55	3.86	1.98
Atlantic spotted dolphin	0.01	0.02	0.05	0.05
Risso's dolphin	0.00	0.00	0.01	0.01
Harbor porpoise	3.44	4.62	5.65	3.20
Gray seal	0.73	0.70	0.65	1.59
Harbor seal	0.73	0.70	0.65	1.59

Note: All density values derived from Roberts *et al.* (2016b, 2017, 2018). Densities shown represent the mean annual density values calculated.

Take Calculation and Estimation

Here we describe how the information provided above is brought together to produce a quantitative take estimate. In order to estimate the number of marine mammals predicted to be exposed to sound levels that would result in harassment, radial distances to predicted isopleths corresponding to Level B harassment thresholds are calculated, as described above. Those distances are then used to calculate the area(s) around the HRG survey equipment predicted to be ensonified to sound levels that exceed harassment thresholds. The area estimated to be ensonified to relevant thresholds in a single day is then calculated, based on areas predicted to be ensonified around the HRG survey equipment and the estimated trackline distance traveled per day by the survey vessel. The daily area is multiplied by the mean annual density of a given marine mammal species. This value is then multiplied by the number of proposed vessel days.

As noted previously, not all noise producing survey equipment/sources will be operated concurrently by each survey vessel on every vessel day. The greatest distance to the Level B harassment threshold for impulsive sources (sparkers or boomers) is 141 m, while the greatest distance to the Level B harassment threshold for other intermittent sources (*e.g.,* CHIRPs, Innomar, USBL) is 54 m. Therefore, the distance used to estimate take by Level B harassment was 141 m for the portion of survey days (54%) employing sparkers and boomers and 54 m for the portion of survey days (46%) when only non-impulsive sources will be used.

Ørsted estimates that the proposed surveys will achieve a maximum daily track line distance of 70 km per 24-hour day during the proposed HRG survey activity days; this distance accounts for the vessel traveling at approximately 4.0 kn, during active survey periods only. Estimates of incidental take by Level B harassment for impulsive and non-impulsive HRG equipment were calculated using the 141 m and 54 m Level B harassment isopleths, respectively, to determine the daily ensonified areas for 24-hour operations

(impulsive 19.8 km^2; non-impulsive 7.659 km^2), estimated daily vessel track of approximately 70 km, and the relevant species density, multiplied by the number of survey days estimated for the specific Survey Area segment (Tables 7 and 8).

For the North Atlantic right whale, NMFS proposes to establish a 500-m exclusion zone which substantially exceeds the distance to the Level B harassment isopleth for both survey days using impulsive sources (141 m) and survey days using non-impulsive sources (54 m). However, Ørsted will be operating 24 hours per day for a majority of the total of 1,302 vessel days. Even with the implementation of mitigation measures (including visual monitoring at night with use of night vision devices), it is reasonable to assume that night time operations for an extended period could result in a limited number of right whales being exposed to underwater sound exceeding Level B harassment levels. Take has been conservatively calculated based on the largest isopleth for both types of survey days (*i.e.,* using impulsive or non-impulsive sources), and is thereby likely an overestimate because the acoustic source resulting in the largest isopleth would not be used on 100 percent of survey days for each category. In addition, Ørsted will implement specific mitigation and monitoring protocols for both types of survey days (*e.g.,* night vision goggles with thermal clip-ons for nighttime operations, exclusion zones, ramp-up and shutdown protocols). NMFS predicts that, in the absence of mitigation, 24 right whales may be taken by Level B harassment throughout the Survey Area over the 12-month project duration. The conservative estimate of exposure at Level B harassment levels coupled with the proposed monitoring and mitigation measures make it likely that this prediction is an overestimate.

As described above, NMFS has determined that the likelihood of take of any marine mammals in the form of Level A harassment occurring as a result of the proposed surveys is so low as to be discountable; therefore, we do not propose to authorize take of any marine mammals by Level A harassment.

TABLE 7—NUMBERS OF POTENTIAL INCIDENTAL TAKE BY LEVEL B HARASSMENT OF MARINE MAMMALS IN EACH OF THE SURVEY SEGMENTS BY SURVEY TYPE AND DURATION (* I = IMPULSIVE; NI = NON-IMPULSIVE)

Survey type	Estimated takes by Level B harassment							
	OCS–A 0486/0517		OCS–A 0487		OCS–A 0500		ECR Area	
	I *	NI *	I	NI	I	NI	I	NI
Vessel days	114	103	97	164	112	52	378	283
Species:								
North Atlantic right whale	4.74	1.64	3.65	2.36	3.99	0.71	5.24	1.5
Humpback whale	3.16	1.09	2.50	1.61	2.66	0.47	3.74	1.07
Fin whale	4.74	1.64	4.99	3.23	5.99	1.06	11.23	3.21
Sei whale	0.23	0.08	0.19	0.12	0.44	0.08	0.75	0.21
Minke whale	1.13	0.39	1.15	0.74	1.55	0.28	3.0	0.86
Sperm whale	0.02	0.08	0.19	0.12	0.22	0.04	0.75	0.21
Long-finned pilot whale	3.61	1.25	6.34	4.10	15.08	2.68	27.69	7.93
Bottlenose dolphin (W.N. Atlantic Offshore)	26.40	9.12	14.79	9.56	15.97	2.83	262.70	75.19
Common dolphin	105.64	36.49	145.58	94.09	97.57	17.32	194.59	55.69
Atlantic white-sided dolphin	32.96	11.38	48.98	31.65	85.60	15.19	148.19	42.41
Atlantic spotted dolphin	0.23	0.08	0.45	0.25	1.11	0.20	3.74	1.07
Risso's dolphin	0.00	0.00	0.00	0.00	0.22	0.04	0.75	0.21
Harbor porpoise	77.65	26.82	88.73	57.35	125.29	22.24	239.50	68.54
Gray seal	16.48	5.69	13.44	8.69	14.41	2.56	119.00	34.06
Harbor seal	16.48	5.69	13.44	8.69	14.41	2.56	119.00	34.06

TABLE 8—NUMBERS OF POTENTIAL INCIDENTAL TAKE OF MARINE MAMMALS PROPOSED FOR AUTHORIZATION AND PROPOSED TAKES AS A PERCENTAGE OF POPULATION

Species	Estimated takes by Level B harassment	Proposed takes by Level B harassment	Total takes proposed for authorization	Total proposed instances of take as a percentage of population
North Atlantic right whale	24	24	24	5.60
Humpback whale [1]	16	21	21	1.50
Fin whale	36	36	36	0.49
Sei whale	2	2	2	0.03
Minke whale [1]	9	13	13	0.05
Sperm whale [1]	2	3	3	0.07
Long-finned pilot whale	69	69	69	0.18
Bottlenose dolphin (W.N. Atlantic Offshore) [2]	417	417	419	0.67
Common dolphin [1 2]	747	2,205	2,211	1.28
Atlantic white-sided dolphin [2]	416	416	418	0.45
Atlantic spotted dolphin	7	7	7	0.02
Risso's dolphin [1]	1	30	30	0.08
Harbor porpoise [2]	706	706	916	0.96
Harbor seal [2]	214	214	215	0.28

TABLE 8—NUMBERS OF POTENTIAL INCIDENTAL TAKE OF MARINE MAMMALS PROPOSED FOR AUTHORIZATION AND PROPOSED TAKES AS A PERCENTAGE OF POPULATION—Continued

Species	Estimated takes by Level B harassment	Proposed takes by Level B harassment	Total takes proposed for authorization	Total proposed instances of take as a percentage of population
Gray seal [2]	214	214	215	0.79

[1] The proposed number of authorized takes (Level B harassment only) for these species has been increased from the estimated take number to mean group size (Risso's dolphin: Palka (2012); sperm whale: Barkaszi and Kelly (2018)) or increased based on PSO sighting observations from Ørsted's HRG survey activities in the same Survey Area in 2019 and 2020 (humpback and minke whales, and common dolphins).

[2] Total take by Level B harassment proposed for authorization has been increased to include modeled exposures resulting from estimation of take by Level A harassment, which is not anticipated (see Section 6.2.1 of the IHA application).

Orsted has requested additional take authorizations beyond the modelled takes for humpback and minke whales and common dolphins, based on increased detection of these species during its 2019 survey. Orsted's justification for this request can be found in its application, which is available here: *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.* We specifically invite comment on this aspect of Orsted's requested take authorization.

Proposed Mitigation

In order to issue an IHA under Section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Proposed Mitigation Measures

NMFS proposes the following mitigation measures be implemented during Ørsted's proposed marine site characterization surveys.

Marine Mammal Exclusion Zones and Monitoring Zone

Marine mammal exclusion zones (EZ) would be established around the HRG survey equipment and monitored by protected species observers (PSOs):

- 500 m EZ for North Atlantic right whales;
- 100 m EZ for all marine mammals, with the exception of certain small delphinids specified below, for survey days operating impulsive acoustic sources (boomer and/or sparker).

If a marine mammal is detected approaching or entering the EZs during the HRG survey, the vessel operator would adhere to the shutdown procedures described below to minimize noise impacts on the animals. These stated requirements will be included in the site-specific training to be provided to the survey team.

Pre-Clearance of the Exclusion Zones

Ørsted would implement a 30-minute pre-clearance period of the exclusion zones prior to the initiation of ramp-up of HRG equipment. During this period, the exclusion zone will be monitored by the PSOs, using the appropriate visual technology. Ramp-up may not be initiated if any marine mammal(s) is within its respective exclusion zone. If a marine mammal is observed within an exclusion zone during the pre-clearance period, ramp-up may not begin until the animal(s) has been observed exiting its respective exclusion zone or until an additional time period has elapsed with no further sighting (*i.e.,* 15 minutes for small odontocetes and seals, and 30 minutes for all other species).

Ramp-Up of Survey Equipment

When technically feasible, a ramp-up procedure would be used for HRG survey equipment capable of adjusting energy levels at the start or re-start of survey activities. The ramp-up procedure would be used at the beginning of HRG survey activities in order to provide additional protection to marine mammals near the Survey Area by allowing them to vacate the area prior to the commencement of survey equipment operation at full power.

A ramp-up would begin with the powering up of the smallest acoustic HRG equipment at its lowest practical power output appropriate for the survey. When technically feasible, the power would then be gradually turned up and other acoustic sources would be added.

Ramp-up activities will be delayed if a marine mammal(s) enters its respective exclusion zone. Ramp-up will continue if the animal has been observed exiting its respective exclusion zone or until an additional time period has elapsed with no further sighting (*i.e,* 15 minutes for small odontocetes and seals and 30 minutes for all other species).

Activation of survey equipment through ramp-up procedures may not occur when visual observation of the pre-clearance zone is not expected to be

effective (*i.e.,* during inclement conditions such as heavy rain or fog).

Shutdown Procedures

An immediate shutdown of the impulsive HRG survey equipment would be required if a marine mammal is sighted entering or within its respective exclusion zone. No shutdown is required for surveys operating only non-impulsive acoustic sources. The vessel operator must comply immediately with any call for shutdown by the Lead PSO. Any disagreement between the Lead PSO and vessel operator should be discussed only after shutdown has occurred. Subsequent restart of the survey equipment can be initiated if the animal has been observed exiting its respective exclusion zone or until an additional time period has elapsed *(i.e.,* 15 minutes for small odontocetes and seals and 30 minutes for all other species).

If a species for which authorization has not been granted, or, a species for which authorization has been granted but the authorized number of takes have been met, approaches or is observed within the Level B harassment zone (54 m, non-impulsive; 141 m impulsive), shutdown would occur.

If the acoustic source is shut down for reasons other then mitigation (*e.g.,* mechanical difficulty) for less than 30 minutes, it may be activated again without ramp-up if PSOs have maintained constant observation and no detections of any marine mammal have occurred within the respective exclusion zones. If the acoustic source is shut down for a period longer than 30 minutes and PSOs have maintained constant observation, then pre-clearance and ramp-up procedures will be initiated as described in the previous section.

The shutdown requirement would be waived for small delphinids of the following genera: *Delphinus, Lagenorhynchus, Stenella,* and *Tursiops.* Specifically, if a delphinid from the specified genera is visually detected approaching the vessel (*i.e.,* to bow ride) or towed equipment, shutdown is not required. Furthermore, if there is uncertainty regarding identification of a marine mammal species (*i.e.,* whether the observed marine mammal(s) belongs to one of the delphinid genera for which shutdown is waived), PSOs must use best professional judgement in making the decision to call for a shutdown. Additionally, shutdown is required if a delphinid is detected in the exclusion zone and belongs to a genus other than those specified.

Vessel Strike Avoidance

Ørsted will ensure that vessel operators and crew maintain a vigilant watch for cetaceans and pinnipeds and slow down or stop their vessels to avoid striking these species. Survey vessel crew members responsible for navigation duties will receive site-specific training on marine mammals and sea turtle sighting/reporting and vessel strike avoidance measures. Vessel strike avoidance measures would include the following, except under circumstances when complying with these requirements would put the safety of the vessel or crew at risk:

- Vessel operators and crews must maintain a vigilant watch for all protected species and slow down, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any protected species. A visual observer aboard the vessel must monitor a vessel strike avoidance zone around the vessel (distances stated below). Visual observers monitoring the vessel strike avoidance zone may be third-party observers (*i.e.,* PSOs) or crew members, but crew members responsible for these duties must be provided sufficient training to (1) distinguish protected species from other phenomena and (2) broadly to identify a marine mammal as a right whale, other whale (defined in this context as sperm whales or baleen whales other than right whales), or other marine mammal.
- All vessels (*e.g.,* source vessels, chase vessels, supply vessels), regardless of size, must observe a 10-knot speed restriction in specific areas designated by NMFS for the protection of North Atlantic right whales from vessel strikes: any dynamic management areas (DMAs) when in effect, the Cape Cod Bay Seasonal Management Area (SMA) (from January 1 through May 15), the Off Race Point SMA (from March 1 through April 30), the Great South Channel SMA (from April 1 through July 31), the Mid-Atlantic SMAs (from November 1 through April 30), and the Southeast SMA (from November 15 through April 15). See *www.fisheries.noaa.gov/national/endangered-species-conservation/reducing-ship-strikes-north-atlantic-right-whales* for specific detail regarding these areas.
- Vessel speeds must also be reduced to 10 knots or less when mother/calf pairs, pods, or large assemblages of cetaceans are observed near a vessel.
- All vessels must maintain a minimum separation distance of 500 m from right whales. If a whale is observed but cannot be confirmed as a species other than a right whale, the vessel operator must assume that it is a right whale and take appropriate action.
- All vessels must maintain a minimum separation distance of 100 m from sperm whales and all other baleen whales.
- All vessels must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m from all other marine mammals, with an understanding that at times this may not be possible (*e.g.,* for animals that approach the vessel).
- When protected species are sighted while a vessel is underway, the vessel shall take action as necessary to avoid violating the relevant separation distance (*e.g.,* attempt to remain parallel to the animal's course, avoid excessive speed or abrupt changes in direction until the animal has left the area). If marine mammals are sighted within the relevant separation distance, the vessel must reduce speed and shift the engine to neutral, not engaging the engines until animals are clear of the area. This does not apply to any vessel towing gear or any vessel that is navigationally constrained.
- These requirements do not apply in any case where compliance would create an imminent and serious threat to a person or vessel or to the extent that a vessel is restricted in its ability to maneuver and, because of the restriction, cannot comply.

Seasonal Operating Requirements

Ørsted will limit to three the number of survey vessels that will operate concurrently from March through June within the Lease Areas (OSC–A 0486/0517, OCS–A 0487, and OCS–A 500) and ECR Area north of the Lease Areas up to, but not including, coastal and bay waters. Ørsted would operate either a single vessel, two vessels concurrently or, for short periods, no more than three survey vessels concurrently in the areas described above during the March-June timeframe when right whale densities are greatest. This practice will help to reduce the number of right whale takes and to minimize the number of times that right whales may be exposed to project noise in a day.

Between watch shifts, members of the monitoring team will consult NOAA Fisheries North Atlantic right whale reporting systems for the presence of North Atlantic right whales throughout survey operations. The Survey Area occurs near the SMAs located off the coast of Rhode Island (Block Island Sounds SMA) and at the entrance to New York Harbor (New York Bight SMA). If survey vessels transit through these SMAs, they must adhere to the

seasonal mandatory speed restrictions from November 1 through April 30. Throughout all survey operations, Ørsted will monitor NOAA Fisheries North Atlantic right whale reporting systems for the establishment of a DMA. If NOAA Fisheries should establish a DMA in the Lease Area under survey, the vessels will abide by speed restrictions in the DMA per the lease condition.

Based on our evaluation of the applicant's proposed measures, as well as other measures considered by NMFS, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring and Reporting

In order to issue an IHA for an activity, Section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

- Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density).
- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) Action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas).
- Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors.
- How anticipated responses to stressors impact either: (1) Long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks.
- Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat).
- Mitigation and monitoring effectiveness.

Proposed Monitoring Measures

Visual monitoring will be performed by qualified, NMFS-approved PSOs, the resumes of whom will be provided to NMFS for review and approval prior to the start of survey activities. Ørsted would employ independent, dedicated, trained PSOs, meaning that the PSOs must (1) be employed by a third-party observer provider, (2) have no tasks other than to conduct observational effort, collect data, and communicate with and instruct relevant vessel crew with regard to the presence of marine mammals and mitigation requirements (including brief alerts regarding maritime hazards), and (3) have successfully completed an approved PSO training course appropriate for their designated task. On a case-by-case basis, non-independent observers may be approved by NMFS for limited, specific duties in support of approved, independent PSOs on smaller vessels with limited crew capacity operating in nearshore waters.

The PSOs will be responsible for monitoring the waters surrounding each survey vessel to the farthest extent permitted by sighting conditions, including exclusion zones, during all HRG survey operations. PSOs will visually monitor and identify marine mammals, including those approaching or entering the established exclusion zones during survey activities. It will be the responsibility of the Lead PSO on duty to communicate the presence of marine mammals as well as to communicate the action(s) that are necessary to ensure mitigation and monitoring requirements are implemented as appropriate.

During all HRG survey operations (*e.g.,* any day on which use of an HRG source is planned to occur), a minimum of one PSO must be on duty during daylight operations on each survey vessel, conducting visual observations at all times on all active survey vessels during daylight hours (*i.e.,* from 30 minutes prior to sunrise through 30 minutes following sunset). Two PSOs will be on watch during nighttime operations. The PSO(s) would ensure 360° visual coverage around the vessel from the most appropriate observation posts and would conduct visual observations using binoculars and/or NVDs and the naked eye while free from distractions and in a consistent, systematic, and diligent manner. PSOs may be on watch for a maximum of four consecutive hours followed by a break of at least two hours between watches and may conduct a maximum of 12 hours of observation per 24-hour period. In cases where multiple vessels are surveying concurrently, any observations of marine mammals would be communicated to PSOs on all nearby survey vessels.

PSOs must be equipped with binoculars and have the ability to estimate distance and bearing to detected marine mammals, particularly in proximity to exclusion zones. Reticulated binoculars must also be available to PSOs for use as appropriate based on conditions and visibility to support the sighting and monitoring of marine mammals. During nighttime operations, night-vision goggle with thermal clip-ons and infrared technology would be used. Position data would be recorded using hand-held or vessel GPS units for each sighting.

During good conditions (*e.g.,* daylight hours; Beaufort sea state (BSS) 3 or less), to the maximum extent practicable, PSOs would also conduct observations when the acoustic source is not operating for comparison of sighting rates and behavior with and without use of the active acoustic sources. Any observations of marine mammals by crew members aboard any vessel associated with the survey would be relayed to the PSO team.

Data on all PSO observations would be recorded based on standard PSO collection requirements. This would include dates, times, and locations of survey operations; dates and times of observations, location and weather; details of marine mammal sightings (*e.g.,* species, numbers, behavior); and details of any observed marine mammal behavior that occurs (*e.g.,* noted behavioral disturbances).

Proposed Reporting Measures

Within 90 days after completion of survey activities, a final technical report will be provided to NMFS that fully documents the methods and monitoring protocols, summarizes the data recorded during monitoring, summarizes the number of marine mammals observed during survey activities (by species, when known), summarizes the mitigation actions taken during surveys (including what type of mitigation and

the species and number of animals that prompted the mitigation action, when known), and provides an interpretation of the results and effectiveness of all mitigation and monitoring. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS.

In addition to the final technical report, Ørsted will provide the reports described below as necessary during survey activities.

In the event that Ørsted personnel discover an injured or dead marine mammal, Ørsted would report the incident to the NMFS Office of Protected Resources (OPR) and the NMFS New England/Mid-Atlantic Stranding Coordinator as soon as feasible. The report would include the following information:

- Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);
- Species identification (if known) or description of the animal(s) involved;
- Condition of the animal(s) (including carcass condition if the animal is dead);
- Observed behaviors of the animal(s), if alive;
- If available, photographs or video footage of the animal(s); and
- General circumstances under which the animal was discovered.

In the unanticipated event of a ship strike of a marine mammal by any vessel involved in the activities covered by the IHA, Ørsted would report the incident to the NMFS OPR and the NMFS New England/Mid-Atlantic Stranding Coordinator as soon as feasible. The report would include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Species identification (if known) or description of the animal(s) involved;
- Vessel's speed during and leading up to the incident;
- Vessel's course/heading and what operations were being conducted (if applicable);
- Status of all sound sources in use;
- Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike;
- Environmental conditions (*e.g.,* wind speed and direction, Beaufort sea state, cloud cover, visibility) immediately preceding the strike;
- Estimated size and length of animal that was struck;
- Description of the behavior of the marine mammal immediately preceding and following the strike;
- If available, description of the presence and behavior of any other marine mammals immediately preceding the strike;
- Estimated fate of the animal (*e.g.,* dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared); and
- To the extent practicable, photographs or video footage of the animal(s).

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity, duration), the context of any responses (*e.g.,* critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS's implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, our analysis applies to all the species listed in Table 3, given that NMFS expects the anticipated effects of the proposed survey to be similar in nature. NMFS does not anticipate that serious injury or mortality would occur as a result from HRG surveys, even in the absence of mitigation, and no serious injury or mortality is proposed to be authorized. As discussed in the Potential Effects section, non-auditory physical effects and vessel strike are not expected to occur. We expect that all potential takes would be in the form of short-term Level B behavioral harassment in the form of temporary avoidance of the area or decreased foraging (if such activity was occurring), reactions that are considered to be of low severity and with no lasting biological consequences (*e.g.,* Southall *et al.,* 2007). Even repeated Level B harassment of some small subset of an overall stock is unlikely to result in any significant realized decrease in viability for the affected individuals, and thus would not result in any adverse impact to the stock as a whole. As described above, Level A harassment is not expected to occur given the nature of the operations, the estimated size of the Level A harassment zones, the relatively low densities of marine mammals in the Survey Area, and the required shutdown zones for certain activities.

In addition to being temporary, the maximum expected harassment zone around a survey vessel is 141 m; almost half of survey days would include activity with a reduced acoustic harassment zone of 54 m per vessel, producing expected effects of particularly low severity. Therefore, the ensonified area surrounding each vessel is relatively small compared to the overall distribution of the animals in the area and their use of the habitat. Feeding behavior is not likely to be significantly impacted as prey species are mobile and are broadly distributed throughout the Survey Area; therefore, marine mammals that may be temporarily displaced during survey activities are expected to be able to resume foraging once they have moved away from areas with disturbing levels of underwater noise. Because of the temporary nature of the disturbance and the availability of similar habitat and resources in the surrounding area, the impacts to marine mammals and the food sources that they utilize are not expected to cause significant or long-term consequences for individual marine mammals or their populations.

ESA-listed species for which takes are proposed are North Atlantic right, fin, sei, and sperm whales; impacts on these species are anticipated to be limited to lower level behavioral effects. NMFS does not anticipate that serious injury or mortality would occur to ESA-listed species, even in the absence of proposed mitigation, and the proposed authorization does not authorize any serious injury or mortality. The proposed survey activities are not anticipated to affect the fitness or reproductive success of individual animals. Since impacts to individual survivorship and fecundity are unlikely, the proposed survey is not expected to result in population-level effects for any

ESA-listed species or alter current population trends of any ESA-listed species.

The status of the North Atlantic right whale population is of heightened concern and, therefore, merits additional analysis. Elevated North Atlantic right whale mortalities began in June 2017, primarily in Canada. Overall, preliminary findings support human interactions, specifically vessel strikes and entanglements, as the cause of death for the majority of right whales. The proposed survey area includes a biologically important migratory route for North Atlantic right whales (effective March–April and November–December) that extends from Massachusetts to Florida (LeBrecque *et al.,* 2015). Off the south coast of Massachusetts and Rhode Island, this biologically important migratory area extends from the coast to beyond the shelf break. The spatial acoustic footprint of the proposed survey is very small relative to the spatial extent of the available migratory habitat; therefore, right whale migration is not expected to be impacted by the proposed survey. Required vessel strike avoidance measures will also decrease risk of ship strike during migration; no ship strike is expected to occur. Additionally, only very limited take by Level B harassment of North Atlantic right whales has been proposed as HRG survey operations are required to maintain a 500 m EZ and shutdown if a North Atlantic right whale is sighted at or within the EZ. The 500 m shutdown zone for right whales is conservative, considering the Level B harassment isopleth for the most impactful acoustic source (*i.e.,* GeoMarine Geo-Source 400 tip sparker) is estimated to be 141 m, and thereby minimizes the potential for behavioral harassment of this species.

The proposed Survey Area includes a fin whale feeding BIA effective between March and October. The fin whale feeding area is sufficiently large (2,933 km^2), and the acoustic footprint of the proposed survey is sufficiently small that whale feeding habitat would not be reduced in any way, and any impacts to foraging behavior within the habitat are expected to be minimal. Behavioral harassment is typically context-dependent, and current literature demonstrates that some mysticetes are less likely to be susceptible to disruption of behavioral patterns when engaged in feeding (Southall *et al.,* 2007; Goldbogen *et al.,* 2013; Harris *et al.,* 2019). Any fin whales temporarily displaced from the proposed survey area would be expected to have sufficient habitat available to them and would not be prevented from feeding in other areas within the biologically important feeding habitat. In addition, any displacement of fin whales from the BIA would be expected to be temporary in nature. Therefore, we do not expect fin whale feeding to be negatively impacted by the proposed survey.

As noted previously, there are several active UMEs occurring in the vicinity of Ørsted's proposed Survey Area. Elevated humpback whale mortalities have occurred along the Atlantic coast from Maine through Florida since January 2016. Of the cases examined, approximately half had evidence of human interaction (ship strike or entanglement). The UME does not yet provide cause for concern regarding population-level impacts. Despite the UME, the relevant population of humpback whales (the West Indies breeding population, or distinct population segment (DPS)) remains stable at approximately 12,000 individuals.

Beginning in January 2017, elevated minke whale strandings have occurred along the Atlantic coast from Maine through South Carolina, with highest numbers in Massachusetts, Maine, and New York. This event does not provide cause for concern regarding population level impacts, as the likely population abundance is greater than 20,000 whales.

Elevated numbers of harbor seal and gray seal mortalities were first observed in July 2018 and have occurred across Maine, New Hampshire, and Massachusetts. Based on tests conducted so far, the main pathogen found in the seals is phocine distemper virus, although additional testing to identify other factors that may be involved in this UME are underway. The UME does not yet provide cause for concern regarding population-level impacts to any of these stocks. For harbor seals, the population abundance is over 75,000 and annual M/SI (350) is well below PBR (2,006) (Hayes *et al.,* 2018). The population abundance for gray seals in the United States is over 27,000, with an estimated abundance, including seals in Canada, of approximately 505,000. In addition, the abundance of gray seals is likely increasing in the U.S. Atlantic EEZ as well as in Canada (Hayes *et al.,* 2018).

The required mitigation measures are expected to reduce the number and/or severity of takes by providing animals the opportunity to move away from the sound source throughout the Survey Area before HRG survey equipment reaches full energy, thus preventing animals from being exposed to sound levels that have the potential to cause injury (Level A harassment) or more severe Level B harassment. No Level A harassment is anticipated or authorized.

NMFS expects that takes would be in the form of short-term Level B behavioral harassment by way of brief startling reactions and/or temporary vacating of the area, or decreased foraging (if such activity was occurring)—reactions that (at the scale and intensity anticipated here) are considered to be of low severity, with no lasting biological consequences. Since both the sources and marine mammals are mobile, animals would only be exposed briefly to a small ensonified area that might result in take. Additionally, required mitigation measures would further reduce exposure to sound that could result in more severe behavioral harassment.

In summary and as described above, the following factors primarily support our preliminary determination that the impacts resulting from this activity are not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival:

- No mortality or serious injury is anticipated or authorized;
- No Level A harassment (PTS) is anticipated or authorized;
- Foraging success is not likely to be significantly impacted as effects on species that serve as prey species for marine mammals from the survey are expected to be minimal;
- The availability of alternate areas of similar habitat value for marine mammals to temporarily vacate the survey area during the planned survey to avoid exposure to sounds from the activity;
- Take is anticipated to be primarily Level B behavioral harassment consisting of brief startling reactions and/or temporary avoidance of the Survey Area;
- While the Survey Area is within areas noted as biologically important for North Atlantic right whale migration, the activities would occur in such a comparatively small area such that any avoidance of the Survey Area due to activities would not affect migration. In addition, mitigation measures to shutdown at 500 m to minimize potential for Level B behavioral harassment would limit any take of the species. Similarly, due to the small footprint of the survey activities in relation to the size of a biologically important area for fin whales' foraging, the survey activities would not affect foraging behavior of this species; and
- The proposed mitigation measures, including visual monitoring and shutdowns, are expected to minimize potential impacts to marine mammals.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the proposed activity will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

The numbers of marine mammals that we propose for authorization to be taken, for all species and stocks, would be small relative to the relevant stocks or populations (less than 6 percent for all species and stocks) as shown in Table 8. Based on the analysis contained herein of the proposed activity (including the proposed mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS preliminarily finds that small numbers of marine mammals will be taken relative to the population size of all affected species or stocks.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally, in this case with the NMFS Greater Atlantic Regional Fisheries Office (GARFO), whenever we propose to authorize take for endangered or threatened species. Within the Survey Area, fin, sei, humpback, North Atlantic right, and sperm whales are listed as endangered species under the ESA. Under section 7 of the ESA, BOEM consulted with NMFS on commercial wind lease issuance and site assessment activities on the Atlantic Outer Continental Shelf in Massachusetts, Rhode Island, New York, and New Jersey Wind Energy Areas. NOAA's GARFO issued a Biological Opinion concluding that these activities may adversely affect but are not likely to jeopardize the continues existence of these marine mammal species. The Biological Opinion can be found online at: *https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-biological-opinions-greater-atlantic-region.* NMFS will conclude the ESA section 7 consultation prior to reaching a determination regarding the proposed issuance of the authorization. If the IHA is issued, the Biological Opinion may be amended to include an incidental take statement for these marine mammal species, as appropriate.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to Ørsted for HRG survey activities effective one year from the date of issuance, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. A draft of the proposed IHA itself is available for review in conjunction with this notice at: *www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.*

Request for Public Comments

We request comment on our analyses, the proposed authorization, and any other aspect of this Notice of Proposed IHA for Ørsted's proposed activity. We also request at this time comment on the potential Renewal of this proposed IHA as described in the paragraph below. Please include with your comments any supporting data or literature citations to help inform decisions on the request for this IHA or a subsequent Renewal IHA.

On a case-by-case basis, NMFS may issue a one-time one-year Renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical, or nearly identical, activities as described in the Specified Activities section of this notice is planned or (2) the activities as described in the Specified Activities section of this notice would not be completed by the time the IHA expires and a Renewal would allow for completion of the activities beyond that described in the *Dates and Duration* section of this notice, provided all of the following conditions are met:

- A request for renewal is received no later than 60 days prior to the needed Renewal IHA effective date (recognizing that the Renewal IHA expiration date cannot extend beyond one year from expiration of the initial IHA).
- The request for renewal must include the following:

(1) An explanation that the activities to be conducted under the requested Renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.,* reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).

(2) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.

- Upon review of the request for Renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

Dated: August 5, 2020.

Donna Wieting,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2020–17354 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Science Advisory Board

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

ACTION: Notice of public meetings.

SUMMARY: This notice sets forth the schedule and proposed agenda of two meetings of the Science Advisory Board

(SAB). The members will discuss issues outlined in the section on Matters to be considered.

DATES: There are two meetings: the first meeting is scheduled for August 27, 2020, from 3:00 p.m. to 3:45 p.m. Eastern Daylight Time (EDT). The second meeting is scheduled for September 22, 2020, from 3:00 p.m. to 5:00 p.m. Eastern Daylight Time (EDT). These times and the agenda topics described below are subject to change. For the latest agenda please refer to the SAB website: *http://sab.noaa.gov/SABMeetings.aspx.*

ADDRESSES: Due to the current Pandemic both meetings will be held virtually. The link for the webinar registration for the August 27, 2020 meeting may be found here: *https://attendee.gotowebinar.com/register/1216984958297330448.* The link for the September 22, 2020 meeting will be posted on the SAB website when available.

FOR FURTHER INFORMATION CONTACT: Dr. Cynthia Decker, Executive Director, SSMC3, Room 11230, 1315 East-West Hwy., Silver Spring, MD 20910; Phone Number: 301–734–1156; *Email: Cynthia.Decker@noaa.gov;* or visit the SAB website at *http://sab.noaa.gov/SABMeetings.aspx.*

SUPPLEMENTARY INFORMATION: The NOAA Science Advisory Board (SAB) was established by a Decision Memorandum dated September 25, 1997, and is the only Federal Advisory Committee with responsibility to advise the Under Secretary of Commerce for Oceans and Atmosphere on strategies for research, education, and application of science to operations and information services. SAB activities and advice provide necessary input to ensure that National Oceanic and Atmospheric Administration (NOAA) science programs are of the highest quality and provide optimal support to resource management.

Status: The August 27, 2020 meeting will be open to public participation with a 5-minute public comment period at 3:40 p.m. (EDT). The September 22, 2020 meeting will have a 5-minute public comment period at 4:45 p.m. (EDT). The SAB expects that public statements presented at its meetings will not be repetitive of previously submitted verbal or written statements. In general, each individual or group making a verbal presentation will be limited to a total time of three minutes. Written comments for the August 27, 2020 meeting should be received by August 12, 2020 and written comments for the September 22, 2020 meeting should be received in the SAB Executive Director's Office by September 7, 2020 to provide sufficient time for SAB review. Written comments received by the SAB Executive Director after these dates will be distributed to the SAB, but may not be reviewed prior to the meeting date.

Special Accommodations: These meetings are physically accessible to people with disabilities. Requests for special accommodations may be directed to the Executive Director no later than 12:00 p.m. (EDT).

Matters To Be Considered: The meeting on August 27, 2020 will consider the Precipitation Prediction Grand Challenge report by the Climate Working Group. The September 22, 2020 meeting will consider updates contained in the SAB long-term work plan based on the NOAA Priorities. Meeting materials, including work products, will be made available on the SAB website: *http://sab.noaa.gov/SABMeetings.aspx.*

Dated: August 5, 2020.

Eric Locklear,

Deputy Chief Financial Officer/Administrative Officer, Office of Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration.

[FR Doc. 2020–17418 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–KD–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA355]

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Herring Advisory Panel via webinar to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: This webinar will be held on Tuesday, August 25, 2020 at 9.30 a.m. Webinar registration URL information: *https://attendee.gotowebinar.com/register/4792386764946327823.*

ADDRESSES:

Meeting address: The meeting will be held via webinar.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Thomas A. Nies, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION:

Agenda

The Advisory Panel will review results of the 2020 management track assessment for Atlantic herring. They will also continue development of Framework 8 to the Atlantic Herring Fishery Management Plan and review preliminary analyses. Framework 8 is considering fishery specifications for fishing years 2021–23 and adjusting measures in the herring plan that potentially inhibit the mackerel fishery from achieving optimum yield. Other business will be discussed as necessary.

Although non-emergency issues not contained on the agenda may come before this Council for discussion, those issues may not be the subject of formal action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency. The public also should be aware that the meeting will be recorded. Consistent with 16 U.S.C. 1852, a copy of the recording is available upon request.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Thomas A. Nies, Executive Director, at (978) 465–0492, at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 5, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17403 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA322]

Fisheries Off West Coast States; Highly Migratory Fisheries; Exempted Fishing Permit To Fish With Longline Gear in the West Coast Exclusive Economic Zone

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of intent to prepare an Environmental Impact Statement; announcement of public scoping period and request for comments.

SUMMARY: NMFS announces its intent to prepare an Environmental Impact Statement (EIS), in accordance with the National Environmental Policy Act (NEPA) of 1969, to analyze the potential short- and long-term impacts of the proposed action to issue an Exempted Fishing Permit (EFP), on the human (biological, physical, social, and economic) environment. This notice of intent to prepare an EIS invites interested parties to provide comments on alternatives to be considered in an EIS, potential terms and conditions to minimize adverse effects to the environment, and to identify potential issues, concerns, and any reasonable additional alternatives that should be considered.

DATES: Written comments on the scope of the analysis will be accepted through September 9, 2020. Comments must be received by 5 p.m. Pacific Daylight Time (PDT) on September 9, 2020. Public comments will also be accepted during a webinar scheduled for 10 a.m. to 12 p.m. PDT, August 27, 2020. Please notify Amber Rhodes (see **FOR FURTHER INFORMATION CONTACT**, below) by August 21, 2020, if you plan to attend the webinar. Instructions for connecting or calling into the webinar will be posted at: *www.fisheries.noaa.gov/west-coast/laws-and-policies/west-coast-region-national-environmental-policy-act-documents.* Accommodations for persons with disabilities are available; accommodation requests should be directed to Amber Rhodes at least 10 working days prior to the webinar.

ADDRESSES: You may submit comments on the scope of this EIS by any of the following methods: Submit electronic public comments via the Federal e-Rulemaking Portal.

1. Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2020-0103.*

2. Click the ''Comment Now!'' icon, complete the required fields, and

3. Enter or attach your comments.

—OR—

Email written comments to *wcr.hms@noaa.gov.* Include the identifier ''NOAA–NMFS–2020–0103'' in the comments.

Instructions: Comments must be submitted by one of the above methods to ensure they are received, documented, and considered by NMFS. Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered. All comments received are a part of the public record. All personal identifying information (*e.g.,* name, address, etc.) submitted voluntarily by the sender will be publicly accessible. Do not submit confidential business information, or otherwise sensitive or protected information. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

FOR FURTHER INFORMATION CONTACT: Amber Rhodes, NMFS, 562–980–3231, *Amber.Rhodes@noaa.gov* or Lyle Enriquez, NMFS, 562–980–4025, *Lyle.Enriquez@noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

In 2015, the Pacific Fishery Management Council (hereafter, the Council) recommended that NMFS issue an EFP authorizing the applicants to engage fish with longline gear within the Exclusive Economic Zone (EEZ). When soliciting requests for EFP proposals, the Council's objective was to test gear types or methods that could serve as an alternative to using drift gillnet (DGN) gear to catch swordfish in the U.S. West Coast EEZ, or to test different approaches to contemporary DGN fishing practices. DGN and harpoon are the only two gear types currently authorized under the Fishery Management Plan (FMP) for U.S. West Coast Fisheries for Highly Migratory Species (HMS FMP); of the two, DGN contributes the majority of the landings to the West Coast. Since 1985, U.S. West Coast swordfish catch has dramatically declined. This is in large part due to attrition in the DGN fleet. Additionally, the state of California has developed a DGN ''permit transition program'' that is expected to further reduce participation in this fleet and is designed to limit the duration of current participants' DGN fishing practices. Without other lawful, economically viable gear types, the U.S. West Coast swordfish fishery is unlikely to operate at optimum yield into the foreseeable future.

According to applicable Federal regulations, a NMFS Regional Administrator may authorize ''for limited testing, public display, data collection, exploratory, health and safety, environmental cleanup, and/or hazard removal purposes, the target or incidental harvest of species managed under an FMP or fishery regulations that would otherwise be prohibited'' (50 CFR 600.745(b)). Issuance of an EFP provides such authorization.

On April 29, 2019, NMFS issued an EFP, which was signed by the applicants and became valid in June of 2019 (84 FR 20108, May 8, 2019), for two vessels to target swordfish and other HMS using shallow-set longline (SSLL) and deep-set longline (DSLL) gear in the West Coast EEZ off California and Oregon. NMFS had completed a final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) on April 19, 2019, which found that the impacts of this EFP on the human environment were not significant under the terms of NEPA. Also, on July 11, 2018, NMFS had completed an Endangered Species Act (ESA) Section 7 consultation which had concluded that the fishing activities authorized under the EFP were not likely to jeopardize the continued existence of ESA-listed species, or result in the destruction or adverse modification of critical habitat. Issuance of this EFP was followed by litigation in the United States District Court for the Northern District of California, in which the plaintiffs alleged, among other claims, that NMFS had not used the best scientific information available (BSIA) in its NEPA analysis or ESA Section 7 consultation, and that as a result, NMFS' issuance of the EFP violated both NEPA and the ESA. *Center for Biological Diversity, et al.* v. *Ross, et al.,* 4:19-cv-03135–KAW (N.D. Cal.). On December 20, 2019, the Court ruled in favor of the plaintiffs, and vacated and set aside the EFP, EA and FONSI, and 2018 Biological Opinion. No SSLL or DSLL fishing activity occurred within the West Coast EEZ under the EFP since the Court's ruling.

NMFS is reviewing options and additional data for re-analyzing the impacts of this EFP with respect to ESA and NEPA. Other than acquiring gear and landings permits and fishing licenses to fish waters off California and Oregon, there are no other permits, licenses, or entitlements needed to conduct the proposed action.

Purpose and Need for the Proposed Action

The purpose of EFPs is to allow fishing practices that are new to a

fishery and not otherwise permitted under a FMP. For example, EFP trials to fish for swordfish with deep-set buoy gear led to a Council recommendation to NMFS to authorize the gear. However, it remains unclear whether deep-set buoy gear will be an economically feasible substitute for DGN, which is used to harvest both swordfish and other marketable highly migratory species. The specific purpose of this EFP is to allow exploratory longline fishing to gauge impacts, determine whether this type of fishing is economically viable, and assess the type and extent of interactions with protected species and non-target finfish.

The proposed action is needed because fishing with longline gear is currently prohibited in the West Coast EEZ under 50 CFR 660.712(a)(1) .This prohibition pre-dates gear and operational modifications in U.S. longline fisheries that have proven effective elsewhere for reducing protected species interactions, injuries, and mortalities (50 CFR 665.812 and 665.815). Without testing potentially viable alternatives to fishing with DGN, the U.S. West Coast swordfish fishery is unlikely to operate at optimum yield into the foreseeable future.

Gear Configurations and Operations

Longline gear is an umbrella term referring to two distinct gear configurations. These configurations include deep-set and shallow-set. DSLL is typically fished at depths of ~984 to 1,312 feet (~300 to 400 meters (m) or deeper) and more commonly used to target tunas. SSLL is typically fished at less than 328 feet (<100 m depth) and more commonly used to target swordfish. The proposed action area for this EFP is the United States EEZ off California and Oregon.

Alternatives

The range of alternatives includes a No Action alternative and reasonable action alternatives that meet the purpose and need. These action alternatives may differ in the limits set on sea turtles observed hooked, entangled, or killed during fishing under the EFP. Additionally, the action alternatives may differ in limits set on fishing activity (*e.g.,* number of vessels, sets, or hooks, and time-area constraints).

Terms and Conditions

In addition to the loggerhead and leatherback sea turtle limits, the action alternatives will include terms and conditions to facilitate data collection and mitigate potential impacts of the EFP activities on the environment. The list of measures below includes a menu of terms and conditions that could apply to the action alternatives in the EIS.

1. 100 percent observer coverage.
2. EFP fishing trips limited to Federal waters only, and cannot co-occur on trips that include fishing under alternative authorizations.
3. Vessel monitoring systems installed and operating for all EFP activities.
4. No transfer of fish to or from vessels operating under the EFP while at sea.
5. No fishing within 50 nautical miles of the mainland shore and islands.
6. No fishing within the Leatherback Critical Habitat area (77 FR 4170, January 26, 2012).
7. No fishing within the Southern California Bight.
8. Restrictions on setting gear within the boundaries of the Pacific leatherback conservation area from August 15 through November 15.
9. Restrictions on EFP fishing in waters north of the Oregon/California border.
10. Gear and bait requirements (*e.g.,* 50 CFR 665.812 and 665.813).
11. Limits on bycatch (*e.g.,* striped marlin).
12. Requirement for setting SSLL at night.
13. Seabird avoidance, protection, and handling measures (50 CFR 660.712(c) and 50 CFR 660.21).
14. Prior to making fishing sets, EFP operators will be required to consult the dynamic ocean modeling tool, EcoCast.
15. Operators must participate in a NMFS-hosted workshop focused on compliance with terms and conditions of the EFP, including training on the use of EcoCast.
16. Operators must possess on board a valid Pacific HMS permit (50 CFR 666.707(a)).

Public Scoping Process

The primary purpose of the scoping process is for the public to assist NMFS in developing the EIS. NMFS requests that the comments be specific. In particular, we request information regarding: Important issues; possible alternatives that meet the purpose and need; direct, indirect, and cumulative environmental impacts; and potential terms and conditions that may minimize adverse effects, including time or area restrictions or both to reduce environmental impacts. In addition to written public comments received during this scoping period and the comments received during the proposed webinar, NMFS will consider public comments and recommendations of the Council's advisory bodies related to the Council's recommendations to NMFS to approve the EFP between 2015 and 2019. In addition to those opportunities for public comment and the opportunities being provided with this notice, NMFS will also make a draft EIS for the proposed action available for public comment.

Dated: August 4, 2020.

Jennifer M. Wallace,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17332 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA267]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to the Transit Protection Program Pier and Support Facilities Project at Naval Base Kitsap Bangor, Washington

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments on proposed authorization and possible renewal.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to the Transit Protection Program Pier and Support Facilities Project at Naval Base Kitsap Bangor in Silverdale, Washington over two years. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue two incidental harassment authorizations (IHAs) to incidentally take marine mammals during the specified activities. NMFS is also requesting comments on possible one-time, one-year renewals that could be issued under certain circumstances and if all requirements are met, as described in Request for Public Comments at the end of this notice. NMFS will consider public comments prior to making any final decision on the issuance of the requested MMPA authorizations and agency responses will be summarized in the final notice of our decision.

DATES: Comments and information must be received no later than September 9, 2020.

ADDRESSES: Comments should be addressed to Jolie Harrison, Chief,

Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, and submitted via email to *ITP.Davis@noaa.gov*.

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, or received after the end of the comment period. Comments, including all attachments, must not exceed a 25-megabyte file size. All comments received are a part of the public record and will generally be posted online at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities* without change. All personal identifying information (*e.g.,* name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

FOR FURTHER INFORMATION CONTACT: Leah Davis, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-construction-activities*. In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

The MMPA prohibits the ''take'' of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed incidental take authorization may be provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). Further, NMFS must prescribe the permissible methods of taking and other ''means of effecting the least practicable adverse impact'' on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stocks for taking for certain subsistence uses (referred to in shorthand as ''mitigation''); and requirements pertaining to the mitigation, monitoring and reporting of the takings are set forth. The definitions of all applicable MMPA statutory terms cited above are included in the relevant sections below.

National Environmental Policy Act

To comply with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*) and NOAA Administrative Order (NAO) 216–6A, NMFS must review our proposed action (*i.e.,* the issuance of an IHA) with respect to potential impacts on the human environment.

This action is consistent with categories of activities identified in Categorical Exclusion B4 (IHAs with no anticipated serious injury or mortality) of the Companion Manual for NOAA Administrative Order 216–6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS has preliminarily determined that the issuance of the proposed IHA qualifies to be categorically excluded from further NEPA review.

We will review all comments submitted in response to this notice prior to concluding our NEPA process or making a final decision on the IHA request.

Summary of Request

On January 14, 2020, NMFS received a request from the Navy for an IHA to take marine mammals incidental to the Transit Protection Program Pier and Support Facilities Project at Naval Base Kitsap Bangor in Silverdale, Washington over two years. The Navy submitted a revised application on March 23, 2020, which was deemed adequate and complete on June 10, 2020. The Navy's request is for take of a small number of five species of marine mammals, by Level B harassment and Level A harassment. Neither the Navy nor NMFS expects serious injury or mortality to result from this activity and, therefore, IHAs are appropriate.

The IHAs, if issued, will be effective from July 16, 2021 to January 15, 2022 for Year 1 activities, and July 16, 2022 to January 15, 2023 for Year 2 activities.

Description of Proposed Activity

Overview

The Navy is proposing to construct and operate a pier for berthing of Transit Protection Program (TPP) blocking vessels, which provide security escort to Fleet Ballistic Missile Submarines between Naval Base Kitsap Bangor and the Strait of Juan de Fuca. These vessels are currently berthed on a space-available basis at various locations at Kitsap Bangor. Kitsap Bangor is located on Hood Canal approximately 20 miles (mi) (32 kilometers (km)) west of Seattle, Washington. Construction activities include vibratory and impact pile driving and vibratory pile removal, over approximately 80 days in year 1 and 10 days in year 2.

Dates and Duration

The Navy anticipates that construction for the TPP project will occur over two years. The proposed IHAs would be effective from July 16, 2021 to January 15, 2022 for Year 1 activities, and July 16, 2022 to January 15, 2023 for Year 2 activities. The Navy expects that pile driving will require a maximum of 90 in-water pile-driving days over the two-year period. They anticipate completing the majority of the proposed construction during Year 1 on approximately 80 in-water workdays. Year 2 activities will include fender pile and guide pile installation only on approximately 10 in-water workdays. Pile driving and removal are expected to occur up to five hours per day during daylight hours. Each year, pile driving will occur during the in-water work window (IWWW) at Kitsap Bangor from July 16 to January 15. This IWWW is typically imposed by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service (USFWS), and the NMFS in an effort to avoid in-water construction when Endangered Species Act (ESA)-listed juvenile salmonids are most likely to be present.

Specific Geographic Region

Naval Base Kitsap Bangor is located north of the community of Silverdale in Kitsap County on the Hood Canal. Hood Canal is a long, narrow, fjord-like basin of western Puget Sound, characterized by relatively steep sides and irregular seafloor topography. In the entrance to Hood Canal, water depths in the center of the waterway near Admiralty Inlet vary between 300 and 420 feet (ft) (91 and 128 m). As the canal extends southwestward toward the Olympic Mountain Range and Thorndyke Bay, water depth decreases to approximately 160 ft (49 m). The proposed location for the TPP Pier is at the tip of the Keyport/

Bangor Spit, north of the Keyport/Bangor Dock (Figure 1). The Bangor waterfront on Naval Base Kitsap occupies approximately 5 mi (8 km) of the shoreline within northern Hood Canal (1.7 percent of the entire Hood Canal coastline). Depths in the center of the waterway off the Bangor waterfront are generally 200 to 400 ft (61 to 122 m).

Human-generated sound is a significant contributor to the ambient acoustic environment at Kitsap Bangor. Normal port activities include vessel traffic from large ships, support vessels and security boats, and loading and maintenance operations, which all generate underwater sound (Urick, 1983). Other sources of human-generated underwater sound not specific to naval installations include sounds from echo sounders on commercial and recreational vessels, industrial ship noise, and noise from recreational boat engines.

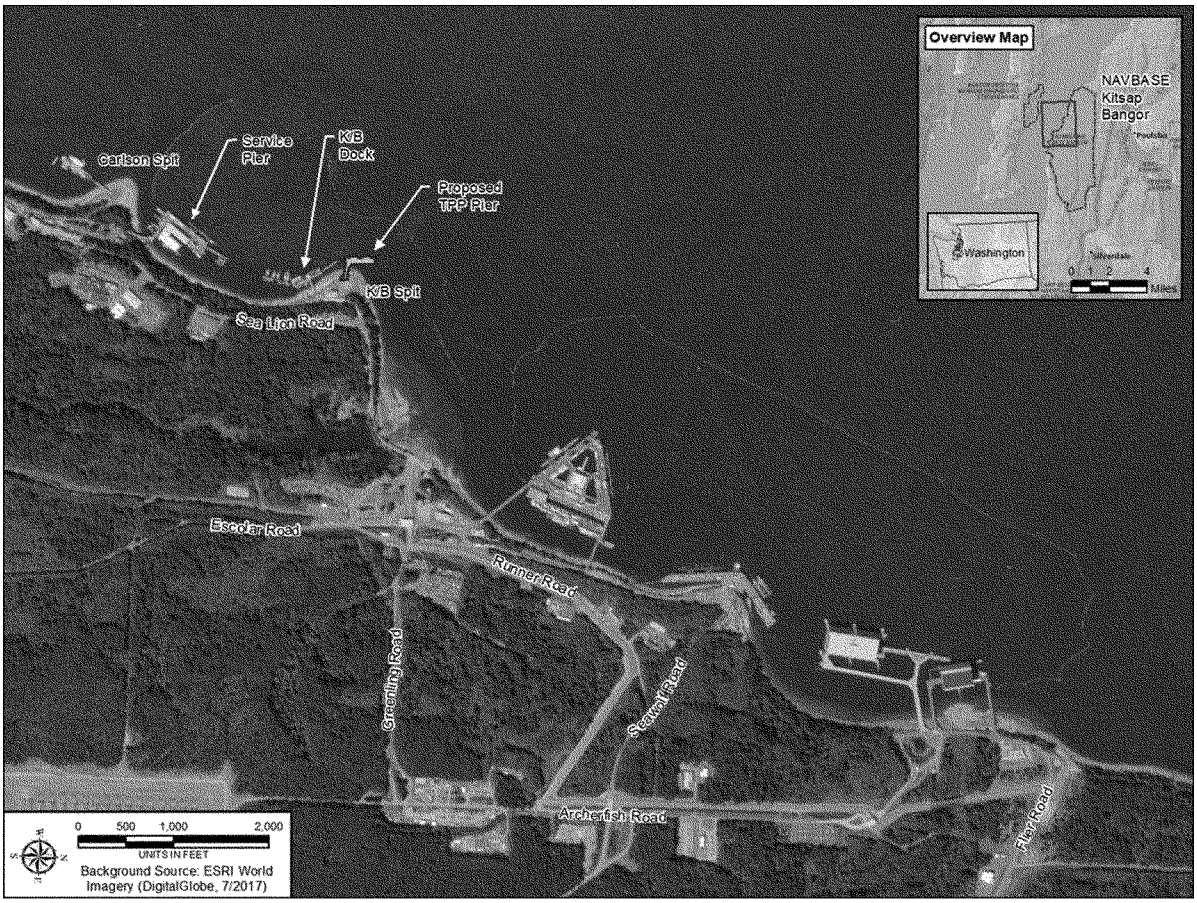

Figure 1-- Proposed TPP Pier Location

Detailed Description of Specific Activity

The Navy plans to construct a pier for berthing TPP blocking vessels. The TPP pier will consist of an L-shaped, pile-supported trestle from shore connecting to a pile-supported main pier section. The Navy will also install two dolphins, one south and one north of the pier which will be used solely for mooring support. Additionally, the contractor will construct a temporary work trestle (falsework piles and timber decking) for use during construction.

The proposed TPP pier will consist of an L-shaped pile-supported trestle from shore connecting to a pile-supported main pier section. The trestle will be concrete and approximately 114 ft (34.7 m) long and 39 ft (11.9 m) wide, including a pedestrian walkway. The main pier section will also be concrete and approximately 299 ft (91.1 m) long and 69 ft (21 m) wide.

The contractor will need to construct a 140-ft (42.6 m) by 20-ft (6.1 m) temporary work trestle (falsework piles and timber decking). The permanent trestle piles in the intertidal area will be driven from the deck of the temporary work trestle; the temporary trestle will subsequently be removed using a vibratory hammer.

Pier and trestle construction will require one derrick barge with a crane and one support/material barge.

The Navy plans to install a fender system along the west face of the pier with two berthing camels where the blocking vessels will tie up to the pier. Each camel will be 65 ft (19.8 m) long by 12 ft (3.7 m) wide and constructed of grated material. The camels will serve as both a standoff for the blocking vessels and a platform for boarding the blocking vessels. The camels will be accessed via brows down from the main pier deck. The brow platforms and brows will also be constructed of grated material. NMFS does not expect camel or brow platform installation to result in the take of marine mammals, and we do not discuss their installation further in this notice.

The fender piles will be installed on the outer side of the pier to protect it from accidental damage by vessels. Where geotechnical conditions do not allow piles to be driven to the required depth using vibratory methods, an

impact hammer may be used to drive some of the 36-in (91.4 cm) support piles for part or all of their length. The 24-in (61.0 cm) fender piles and 30-in (76.2 cm) camel guide piles will not be impact driven.

The Navy plans to construct two dolphins, one south of the pier, and one north of the pier for mooring support. The dolphins will support mooring hardware for the bow and stern lines of the blocking vessels. The structural system for the mooring dolphins will consist of a 12 ft by 12 ft (3.7 m by 3.7 m) cast-in-place concrete pile cap and four 36-inch battered steel pipe piles. The Navy plans to construct a shoreline abutment under the pier trestle. The shoreline abutment will be constructed from sheet piles and will be constructed landward of mean higher high water (MHHW). Therefore, we do not expect the shoreline abutment to result in take of marine mammals, and it is not discussed further in this notice.

The trestle, pier, and dolphins will require in-water installation of a total of 120 permanent steel piles that are 24, 30, or 36 inches in diameter, and 40 temporary steel falsework piles that are 36 inches in diameter.

An additional four 36-inch trestle support piles and 20 36-inch falsework piles will be located above MHHW, however, we do not expect installation of piles above MHHW to result in take of marine mammals, and these piles are not discussed further.

The Navy will primarily install piles using a vibratory hammer, but may use an impact hammer to install steel support piles. Steel support piles will be advanced to the extent practicable with a vibratory driver. For load-bearing structures, an impact hammer is typically required to strike a pile a number of times to ensure it has met the load-bearing specifications, a process referred to as ''proofing.'' Piles will only be impact driven when required for proofing or when a pile cannot be advanced with a vibratory driver due to hard substrate conditions. The Navy does not plan to conduct pile driving with multiple hammers concurrently.

TABLE 1—SUMMARY OF PILES TO BE INSTALLED OR REMOVED IN YEAR 1 ACROSS ALL STRUCTURES

Pile type	Driving method	Number of in-water piles
36-inch Steel Pipe Piles	Vibratory and Impact (proofing)	100
36-inch Steel Falsework Piles	Vibratory	[a] 40

[a] These piles will be installed and later removed.

TABLE 2—SUMMARY OF PILES TO BE INSTALLED IN YEAR 2

Pile type	Driving method	Number of in-water piles
24-inch Steel Fender Piles	Vibratory	10
30-inch Steel Guide Piles	Vibratory	10

Navy will also conduct several construction activities in upland areas, including installation of diesel fuel tanks, installation of a paved parking area, construction of a vessel maintenance facility, among other activities. Given their location, we do not expect any of these upland construction activities to result in the take of marine mammals, and they are not discussed further in this notice. Please refer to the Navy's application for additional detail on these project components.

Proposed mitigation, monitoring, and reporting measures are described in detail later in this document (please see Proposed Mitigation and Proposed Monitoring and Reporting).

Description of Marine Mammals in the Area of Specified Activities

Sections 3 and 4 of the application summarize available information regarding status and trends, distribution and habitat preferences, and behavior and life history, of the potentially affected species. Additional information regarding population trends and threats may be found in NMFS's Stock Assessment Reports (SARs; *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments)* and more general information about these species (*e.g.,* physical and behavioral descriptions) may be found on NMFS's website (*https://www.fisheries.noaa.gov/find-species*).

Table 3 lists all species or stocks for which take is expected and proposed to be authorized for this action, and summarizes information related to the population or stock, including regulatory status under the MMPA and ESA and potential biological removal (PBR), where known. For taxonomy, we follow Committee on Taxonomy (2020). PBR is defined by the MMPA as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population (as described in NMFS's SARs). While no mortality is anticipated or authorized here, PBR and annual serious injury and mortality from anthropogenic sources are included here as gross indicators of the status of the species and other threats.

Marine mammal abundance estimates presented in this document represent the total number of individuals that make up a given stock or the total number estimated within a particular study or survey area. NMFS's stock abundance estimates for most species represent the total estimate of individuals within the geographic area, if known, that comprises that stock. For some species, this geographic area may extend beyond U.S. waters. All managed stocks in this region are assessed in NMFS's U.S. Pacific and Alaska SARs (*e.g.,* Carretta *et al.,* 2020). All values presented in Table 3 are the most recent available at the time of publication and are available in the 2019 SARs (Carretta *et al.,* 2020, Muto *et al.,* 2020).

TABLE 3—SPECIES PROPOSED FOR AUTHORIZED TAKE

Common name	Scientific name	Stock	ESA/ MMPA status; strategic (Y/N) [a]	Stock abundance (CV, N_{min}, most recent abundance survey) [b]	PBR	Annual M/SI [c]
Order Cetartiodactyla—Cetacea—Superfamily Odontoceti (toothed whales, dolphins, and porpoises)						
Family Delphinidae:						
Killer Whale	*Orcinus orca*	West Coast Transient.	-, -, N	243 [d] (N/A, 243, 2009)	2.4	0
Family Phocoenidae (porpoises):						
Harbor porpoise	*Phocoena phocoena*	Washington Inland Waters.	-, -, N	11,233 (0.37, 8,308, 2015)	66	≥7.2
Order Carnivora—Superfamily Pinnipedia						
Family Otariidae (eared seals and sea lions):						
California Sea Lion	*Zalophus californianus*	United States	-, -, N	257,606 (N/A, 233,515, 2014)	14,011	>321
Steller sea lion	*Eumetopias jubatus monteriensis*	Eastern U.S.	-, -, N	43,201 [e] (see SAR, 43,201, 2017)	2,592	113
Family Phocidae (earless seals):						
Harbor seal	*Phoca vitulina*	Washington Inland Waters, Hood Canal.	-, -, N	1,088 (0.15, UNK, 1999) [f]	UNK	0.2

[a]–ESA status: Endangered (E), Threatened (T)/MMPA status: Depleted (D). A dash (-) indicates that the species is not listed under the ESA or designated as depleted under the MMPA. Under the MMPA, a strategic stock is one for which the level of direct human-caused mortality exceeds PBR or which is determined to be declining and likely to be listed under the ESA within the foreseeable future. Any species or stock listed under the ESA is automatically designated under the MMPA as depleted and as a strategic stock.

[b]–NMFS marine mammal stock assessment reports online at: *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports-region.* CV is coefficient of variation; Nmin is the minimum estimate of stock abundance.

[c]–These values, found in NMFS's SARs, represent annual levels of human-caused mortality plus serious injury from all sources combined (*e.g.,* commercial fisheries, ship strike). Annual mortality/serious injury (M/SI) often cannot be determined precisely and is in some cases presented as a minimum value or range.

[d]–Based on counts of individual animals identified from photo-identification catalogues. Surveys for abundance estimates of these stocks are conducted infrequently.

[e]–Best estimate of pup and non-pup counts, which have not been corrected to account for animals at sea during abundance surveys.

[f]–The abundance estimate for this stock is greater than eight years old and is therefore not considered current. PBR is considered undetermined for this stock, as there is no current minimum abundance estimate for use in calculation. We nevertheless present the most recent abundance estimates, as these represent the best available information for use in this document.

As indicated above, all five species (with five managed stocks) in Table 3 temporally and spatially co-occur with the activity to the degree that take is reasonably likely to occur, and we have proposed authorizing it. While humpback whale, gray whale, Southern Resident killer whale, Dall's porpoise, and bottlenose dolphin have been sighted in the area, the temporal and spatial occurrence of these species is such that take is not expected to occur, and they are not discussed further beyond the explanation provided here. Humpback whales (*Megaptera novaeangliae*) have been detected year-round in small numbers in Puget Sound. In Hood Canal, after an absence of sightings for over 15 years, an individual was seen over a 1-week period in early 2012, with additional 1-day sightings in 2015, 2016, and 2017 (Orca Network, 2019). However, these sightings are exceptions to the normal occurrence of the species in Washington inland waters. Gray whales (*Eschrichtius robustus*) have been infrequently documented in Hood Canal waters over the past decade. There were five sightings in 2017 and one in 2018 (Orca Network, 2017, 2019). These sightings are an exception to the normal seasonal occurrence of gray whales in Puget Sound feeding areas. The Southern Resident killer whale stock is resident to the inland waters of Washington state and British Columbia; however, it has not been seen in Hood Canal in over 15 years. Dall's porpoise (*Phocoenoides dalli*) was documented once in Hood Canal in 2009 and more recently once in 2018 (Orca Network, 2019); however, Dall's porpoises are unlikely to be present in Hood Canal. Bottlenose dolphin (*Tursiops truncatus*) were documented in Hood Canal twice in 2018 (Orca Network, 2019); however, bottlenose dolphins are unlikely to be present in Hood Canal.

Killer Whale

Killer whales in the project area are expected to be from the West Coast Transient stock, which occurs from California through southeastern Alaska with a preference for coastal waters of southern Alaska and British Columbia (Krahn *et al.,* 2002). Transient killer whales in the Pacific Northwest spend most of their time along the outer coast of British Columbia and Washington, but visit inland waters in search of harbor seals, sea lions, and other prey.

Transients may occur in inland waters in any month (Orca Network, 2015). However, Morton (1990) found bimodal peaks in spring (March) and fall (September to November) for transients on the northeastern coast of British Columbia, and Baird and Dill (1995) found some transient groups frequenting the vicinity of harbor seal haulouts around southern Vancouver Island during August and September, which is the peak period for pupping through post-weaning of harbor seal pups. Not all transient groups were seasonal in these studies, and their movements appeared to be unpredictable. From 2004–2010, transient killer whales occurred in Washington inland waters most frequently in August–September with a strong second peak in April–May (Houghton *et al.,* 2015).

The number of West Coast Transient killer whales in Washington inland waters at any one time was previously considered likely to be fewer than 20 individuals (Wiles, 2004). Recent research suggests that the transient killer whales use of inland waters increased from 2004 through 2010, with the trend likely due to increasing prey abundance (Houghton *et al.,* 2015). Many of the West Coast Transients in Washington inland waters have been catalogued by photo identification.

Transient killer whales were observed for lengthy periods in Hood Canal in 2003 (59 days) and 2005 (172 days) between the months of January and July (London, 2006), but were not observed again until March 2016 (Orca Network, 2016). Transient killer whales were observed in Hood Canal on two days in

March 2016, one day in April 2016, eight consecutive days in May 2016, one day in 2017, 11 consecutive days in April 2018, and one day on two additional occasions in 2018. Some of the sightings in 2016 and 2018 were in Dabob Bay (Orca Network, 2017, 2019). Killer whales were historically documented in Hood Canal by sound recordings in 1958 (Ford, 1991), a photograph from 1973, sound recordings in 1995 (Unger, 1997), and anecdotal accounts of historical use. Long-term use of Hood Canal is likely anomalous. The more typical use of Hood Canal appears to be short-term occupancy for foraging in a small area, followed by departure from Hood Canal.

Harbor Porpoise

Harbor porpoise in Puget Sound are expected to be from the Washington Inland Waters stock. In Washington inland waters, harbor porpoise are known to occur in the Strait of Juan de Fuca and the San Juan Island area year-round (Calambokidis & Baird, 1994; Osmek *et al.,* 1996; Carretta *et al.,* 2012). Harbor porpoises were historically one of the most commonly observed marine mammals in Puget Sound (Scheffer & Slipp, 1948); however, there was a significant decline in sightings beginning in the 1940s (Everitt *et al.,* 1979; Calambokidis *et al.,* 1992). Only a few sightings were reported between the 1970s and 1980s (Calambokidis *et al.,* 1992; Osmek *et al.,* 1996; Suryan & Harvey, 1998), and no harbor porpoise sightings were recorded during multiple ship and aerial surveys conducted in Puget Sound (including Hood Canal) in 1991 and 1994 (Calambokidis *et al.,* 1992; Osmek *et al.,* 1996). Incidental sightings of marine mammals during aerial bird surveys conducted as part of the Puget Sound Ambient Monitoring Program (PSAMP) detected few harbor porpoises in Puget Sound between 1992 and 1999 (Nysewander *et al.,* 2005). However, these sightings may have been negatively biased due to the low elevation of the plane that may have caused an avoidance behavior. Since 1999, PSAMP data, stranding data, and aerial surveys conducted from 2013 to 2015 documented increasing numbers of harbor porpoise in Puget Sound (Nysewander, 2005; WDFW, 2008; Jeffries, 2013; Jefferson *et al.,* 2016; Smultea *et al.,* 2017).

Sightings in Hood Canal, north of the Hood Canal Bridge, have increased in recent years (Calambokidis, 2010). During line-transect vessel surveys conducted in the Hood Canal in 2011 for the Test Pile Program near Naval Base Kitsap Bangor and Dabob Bay (HDR, 2012), an average of six harbor porpoises were sighted per day in the deeper waters.

Steller Sea Lion

Steller sea lions in the project area are expected to be from the Eastern U.S. stock. The Eastern U.S. stock of Steller sea lions is found along the coasts of southeast Alaska to northern California where they occur at rookeries and numerous haulout locations along the coastline (Jeffries *et al.,* 2000; Scordino, 2006; NMFS, 2013). Along the northern Washington coast, up to 25 pups are born annually (Jeffries, 2013). Male Steller sea lions often disperse widely outside of the breeding season from breeding rookeries in northern California (St. George Reef) and southern Oregon (Rogue Reef) (Scordino, 2006; Wright *et al.,* 2010). Based on mark recapture sighting studies, males migrate back into these Oregon and California locations from winter feeding areas in Washington, British Columbia, and Alaska (Scordino, 2006).

In Washington, Steller sea lions use haulout sites primarily along the outer coast from the Columbia River to Cape Flattery, as well as along the Vancouver Island side of the Strait of Juan de Fuca (Jeffries *et al.,* 2000). A major winter haulout is located in the Strait of Juan de Fuca at Race Rocks, British Columbia, Canada (Canadian side of the Strait of Juan de Fuca) (Edgell and Demarchi, 2012). Numbers vary seasonally in Washington with peak numbers present during the fall and winter months and a decline in the summer months that corresponds to the breeding season at coastal rookeries (approximately late May to early June) (Jeffries *et al.,* 2000). In Puget Sound, Jeffries (2012) identified five winter haulout sites used by adult and subadult (immature or pre-breeding animals) Steller sea lions, ranging from immediately south of Port Townsend (near Admiralty Inlet) to Olympia in southern Puget Sound (see Figure 4–1 of the Navy's application). Numbers of animals observed at these sites ranged from a few to less than 100 (Jeffries, 2012). In addition, Steller sea lions opportunistically haul out on various navigational buoys in Admiralty Inlet south through southern Puget Sound near Olympia (Jeffries, 2012). Typically, one or two animals occur at a time on these buoys.

Steller sea lions have been seasonally documented in shore-based surveys at Naval Base Kitsap Bangor in Hood Canal since 2008 with up to 15 individuals observed hauled out on submarines at Delta Pier (Navy, 2016, 2019). Navy surveys at Naval Base Kitsap Bangor indicate Steller sea lions begin arriving in September and depart by the end of May (Navy, 2016, 2019). Survey methods and frequency are detailed Appendix A of the Navy's application.

California Sea Lion

Jeffries *et al.* (2000) and Jeffries (2012) identified dedicated, regular haulouts used by adult and subadult California sea lions in Washington inland waters. Main haulouts occur at Naval Base Kitsap Bangor, Naval Base Kitsap Bremerton, and Naval Station Everett, as well as in Rich Passage near Manchester, Seattle (Shilshole Bay), south Puget Sound (Commencement Bay, Budd Inlet), and numerous navigation buoys south of Whidbey Island to Olympia in south Puget Sound (Jeffries *et al.,* 2000; Jeffries, 2012) (Figure 4–1 of the Navy's application). Race Rocks, British Columbia, Canada (Canadian side of the Strait of Juan de Fuca) has been identified as a major winter haulout for California sea lions (Edgell and Demarchi, 2012). California sea lions are typically present most of the year except for mid-June through July in Washington inland waters, with peak abundance numbers between October and May (NMFS, 1997; Jeffries *et al.,* 2000). California sea lions are expected to forage within the area, following local prey availability. During summer months and associated breeding periods, the inland waters are not considered a high-use area by California sea lions, as they are returning to rookeries in California waters. However, California sea lions have been documented during shore-based surveys at Naval Base Kitsap Bangor in Hood Canal since 2008 in all survey months, with as many as 320 individuals observed at one time (October 2018) hauled out on submarines at Delta Pier and on port security barrier (PSB) floats (Navy, 2016, 2019; Appendix A of the Navy's application). Relatively few individuals (<17 sighted per survey) were present during these surveys from June through August.

Harbor Seal

Harbor seals are a coastal species, rarely found more than 12 mi (19.3 km) from shore. They frequently occupy bays, estuaries, and inlets. Individual seals have been observed several miles upstream in coastal rivers (Baird, 2001). Ideal harbor seal habitat includes haulout sites, areas providing shelter during breeding periods, and areas with sufficient food (Bjørge, 2002). Haulout areas can include intertidal and subtidal rock outcrops, sandbars, sandy beaches, peat banks in salt marshes, and man-

made structures such as log booms, docks, and recreational floats (Wilson, 1978; Prescott, 1982; Schneider & Payne, 1983, Gilbert & Guldager, 1998; Jeffries *et al.,* 2000; Lambourn *et al.,* 2010). Harbor seals do not make extensive pelagic migrations, though some long distance movement of tagged animals in Alaska (108 mi (174 km)) and along the U.S. west coast (up to 342 mi (550 km)) have been recorded (Brown & Mate, 1983; Womble & Gende, 2013). Harbor seals have also displayed strong fidelity to haulout sites.

Harbor seals are the most common, widely distributed marine mammal found in Washington marine waters and are frequently observed in the nearshore marine environment. They occur year-round and breed in Washington. Numerous harbor seal haulouts occur in Washington inland waters. Haulouts include intertidal and subtidal rock outcrops, beaches, reefs, sandbars, log booms, and floats. Numbers of individuals at haulouts range from a few to between 100 and 500 individuals (Jeffries *et al.,* 2000).

Harbor seals are expected to occur year-round at Naval Base Kitsap Bangor. In Hood Canal, where Kitsap Bangor is located, known haulouts occur on the west side of Hood Canal at the mouth of the Dosewallips River and on the western and northern shorelines in Dabob Bay located approximately 8 mi (13 km) away from the Navy's installation. Vessel-based surveys conducted from 2007 to 2010 at Kitsap Bangor, observed harbor seals in every month of surveys (Agness & Tannenbaum, 2009; Tannenbaum *et al.,* 2009, 2011). Harbor seals were routinely seen during marine mammal monitoring for two construction projects, the Test Pile Project and EHW–2 construction projects (HDR, 2012; Hart Crowser, 2013, 2014, 2015). Small numbers of harbor seals have been documented hauling out on the PSB floats, wavescreens at Carderock Pier, buoys, barges, marine vessels, and logs (Agness and Tannenbaum, 2009; Tannenbaum *et al.,* 2009, 2011; Navy, 2016) and on man-made floating structures near Keyport Bangor Dock and Delta Pier. Opportunistic surveys by a Naval Facilities Engineering Command biologist in August and September 2016 recorded as many as 28 harbor seals hauled out under Marginal Wharf or swimming in adjacent waters. On two occasions, four to six individuals were observed hauled out near Delta Pier.

The Navy identified a few observations of harbor seal births or neonates. In 2014, the Navy's knowledge of harbor seal births increased due to increased pinniped surveys on the waterfront and increased contact with waterfront personnel who have had lengthy careers at Bangor (Navy, 2016). Known harbor seal births include one on the Carderock wave screen in August 2011 and at least one on a small 10 by 10 ft (3 by 3 m) floating dock at EHW–2 in fall 2013, as reported by EHW–2 construction crews, and afterbirth observed on a float at Magnetic Silencing Facility with an unknown date. In addition, Navy biologists learned that harbor seal pupping has occurred on a section of the Service Pier since approximately 2001, according to the Port Operations vessel crews. Harbor seal mother and pup sets were observed in 2014 hauled out on the Carderock wavescreen and swimming in nearby waters, and swimming near Delta Pier (Navy, 2016).

Marine Mammal Hearing

Hearing is the most important sensory modality for marine mammals underwater, and exposure to anthropogenic sound can have deleterious effects. To appropriately assess the potential effects of exposure to sound, it is necessary to understand the frequency ranges marine mammals are able to hear. Current data indicate that not all marine mammal species have equal hearing capabilities (*e.g.,* Richardson *et al.,* 1995; Wartzok and Ketten, 1999; Au and Hastings, 2008). To reflect this, Southall *et al.* (2007) recommended that marine mammals be divided into functional hearing groups based on directly measured or estimated hearing ranges on the basis of available behavioral response data, audiograms derived using auditory evoked potential techniques, anatomical modeling, and other data. Note that no direct measurements of hearing ability have been successfully completed for mysticetes (*i.e.,* low-frequency cetaceans). Subsequently, NMFS (2018) described generalized hearing ranges for these marine mammal hearing groups. Generalized hearing ranges were chosen based on the approximately 65 decibel (dB) threshold from the normalized composite audiograms, with the exception for lower limits for low-frequency cetaceans where the lower bound was deemed to be biologically implausible and the lower bound from Southall *et al.* (2007) retained. Marine mammal hearing groups and their associated hearing ranges are provided in Table 4.

TABLE 4—MARINE MAMMAL HEARING GROUPS

[NMFS, 2018]

Hearing group	Generalized hearing range *
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, *Kogia,* river dolphins, cephalorhynchid, *Lagenorhynchus cruciger* & *L. australis*).	275 Hz to 160 kHz.
Phocid pinnipeds (PW) (underwater) (true seals)	50 Hz to 86 kHz.
Otariid pinnipeds (OW) (underwater) (sea lions and fur seals)	60 Hz to 39 kHz.

* Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall et al. 2007) and PW pinniped (approximation).

The pinniped functional hearing group was modified from Southall *et al.* (2007) on the basis of data indicating that phocid species have consistently demonstrated an extended frequency range of hearing compared to otariids, especially in the higher frequency range (Hemilä *et al.,* 2006; Kastelein *et al.,* 2009; Reichmuth and Holt, 2013).

For more detail concerning these groups and associated frequency ranges, please see NMFS (2018) for a review of available information. Five marine mammal species (two cetacean and two pinniped (two otariid and one phocid) species) have the reasonable potential to co-occur with the proposed construction (Table 4). Of the cetacean species that may be present, one is classified as a mid-frequency cetacean (*i.e.,* killer whale), and one is classified as a high-frequency cetacean (*i.e.,* harbor porpoise).

Potential Effects of Specified Activities on Marine Mammals and Their Habitat

This section includes a summary and discussion of the ways that components of the specified activity may impact marine mammals and their habitat. The Estimated Take section later in this document includes a quantitative analysis of the number of individuals that are expected to be taken by this activity. The Negligible Impact Analysis and Determination section considers the content of this section, the Estimated Take section, and the Proposed Mitigation section, to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and how those impacts on individuals are likely to impact marine mammal species or stocks.

Acoustic effects on marine mammals during the specified activity can occur from vibratory and impact pile driving. The effects of underwater noise from the Navy's proposed activities have the potential to result in Level A and Level B harassment of marine mammals in the action area.

Description of Sound Sources

The marine soundscape is comprised of both ambient and anthropogenic sounds. Ambient sound is defined as the all-encompassing sound in a given place and is usually a composite of sound from many sources both near and far. The sound level of an area is defined by the total acoustical energy being generated by known and unknown sources. These sources may include physical (*e.g.,* waves, wind, precipitation, earthquakes, ice, atmospheric sound), biological (*e.g.,* sounds produced by marine mammals, fish, and invertebrates), and anthropogenic sound (*e.g.,* vessels, dredging, aircraft, construction).

The sum of the various natural and anthropogenic sound sources at any given location and time—which comprise ''ambient'' or ''background'' sound—depends not only on the source levels (as determined by current weather conditions and levels of biological and shipping activity) but also on the ability of sound to propagate through the environment. In turn, sound propagation is dependent on the spatially and temporally varying properties of the water column and sea floor, and is frequency-dependent. As a result of the dependence on a large number of varying factors, ambient sound levels can be expected to vary widely over both coarse and fine spatial and temporal scales. Sound levels at a given frequency and location can vary by 10–20 dB from day to day (Richardson *et al.* 1995). The result is that, depending on the source type and its intensity, sound from the specified activity may be a negligible addition to the local environment or could form a distinctive signal that may affect marine mammals.

In-water construction activities associated with the project would include impact pile driving, vibratory pile driving, and vibratory pile removal. The sounds produced by these activities fall into one of two general sound types: Impulsive and non-impulsive. Impulsive sounds (*e.g.,* explosions, gunshots, sonic booms, impact pile driving) are typically transient, brief (less than 1 second), broadband, and consist of high peak sound pressure with rapid rise time and rapid decay (ANSI 1986; NIOSH 1998; ANSI 2005; NMFS 2018a). Non-impulsive sounds (*e.g.,* aircraft, machinery operations such as drilling or dredging, vibratory pile driving, and active sonar systems) can be broadband, narrowband or tonal, brief or prolonged (continuous or intermittent), and typically do not have the high peak sound pressure with raid rise/decay time that impulsive sounds do (ANSI 1995; NIOSH 1998; NMFS 2018a). The distinction between these two sound types is important because they have differing potential to cause physical effects, particularly with regard to hearing (*e.g.,* Ward 1997 in Southall *et al.* 2007).

Two types of pile hammers would be used on this project: Impact and vibratory. Impact hammers operate by repeatedly dropping a heavy piston onto a pile to drive the pile into the substrate. Sound generated by impact hammers is characterized by rapid rise times and high peak levels, a potentially injurious combination (Hastings and Popper 2005). Vibratory hammers install piles by vibrating them and allowing the weight of the hammer to push them into the sediment. Vibratory hammers produce significantly less sound than impact hammers. Peak sound pressure levels (SPLs) may be 180 dB or greater, but are generally 10 to 20 dB lower than SPLs generated during impact pile driving of the same-sized pile (Oestman *et al.* 2009). Rise time is slower, reducing the probability and severity of injury, and sound energy is distributed over a greater amount of time (Nedwell and Edwards 2002; Carlson *et al.* 2005).

The likely or possible impacts of the Navy's proposed activity on marine mammals could involve both non-acoustic and acoustic stressors. Potential non-acoustic stressors could result from the physical presence of the equipment and personnel; however, any impacts to marine mammals are expected to primarily be acoustic in nature. Acoustic stressors include effects of heavy equipment operation during pile installation and removal.

Acoustic Impacts

The introduction of anthropogenic noise into the aquatic environment from pile driving and removal is the primary means by which marine mammals may be harassed from the Navy's specified activity. In general, animals exposed to natural or anthropogenic sound may experience physical and psychological effects, ranging in magnitude from none to severe (Southall *et al.* 2007). In general, exposure to pile driving and removal noise has the potential to result in auditory threshold shifts and behavioral reactions (*e.g.,* avoidance, temporary cessation of foraging and vocalizing, changes in dive behavior). Exposure to anthropogenic noise can also lead to non-observable physiological responses such an increase in stress hormones. Additional noise in a marine mammal's habitat can mask acoustic cues used by marine mammals to carry out daily functions such as communication and predator and prey detection. The effects of pile driving and removal noise on marine mammals are dependent on several factors, including, but not limited to, sound type (*e.g.,* impulsive vs. non-impulsive), the species, age and sex class (*e.g.,* adult male vs. mom with calf), duration of exposure, the distance between the pile and the animal, received levels, behavior at time of exposure, and previous history with exposure (Wartzok *et al.* 2004; Southall *et al.* 2007). Here we discuss physical auditory effects (threshold shifts) followed by behavioral effects and potential impacts on habitat.

NMFS defines a noise-induced threshold shift (TS) as a change, usually an increase, in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS 2018). The amount of threshold shift is customarily expressed in dB. A TS can be permanent or temporary. As described in NMFS (2018), there are numerous factors to consider when examining the consequence of TS, including, but not limited to, the signal temporal pattern (*e.g.,* impulsive or non-impulsive), likelihood an individual would be exposed for a long enough duration or to a high enough level to induce a TS, the magnitude of the TS, time to recovery (seconds to minutes or hours to days), the frequency range of the exposure (*i.e.,* spectral content), the

hearing and vocalization frequency range of the exposed species relative to the signal's frequency spectrum (*i.e.,* how an animal uses sound within the frequency band of the signal; *e.g.,* Kastelein *et al.* 2014), and the overlap between the animal and the source (*e.g.,* spatial, temporal, and spectral).

Permanent Threshold Shift (PTS)—NMFS defines PTS as a permanent, irreversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS 2018). Available data from humans and other terrestrial mammals indicate that a 40 dB threshold shift approximates PTS onset (see Ward *et al.* 1958, 1959; Ward 1960; Kryter *et al.* 1966; Miller 1974; Ahroon *et al.* 1996; Henderson *et al.* 2008). PTS levels for marine mammals are estimates, as with the exception of a single study unintentionally inducing PTS in a harbor seal (Kastak *et al.* 2008), there are no empirical data measuring PTS in marine mammals largely due to the fact that, for various ethical reasons, experiments involving anthropogenic noise exposure at levels inducing PTS are not typically pursued or authorized (NMFS 2018).

Temporary Threshold Shift (TTS)—TTS is a temporary, reversible increase in the threshold of audibility at a specified frequency or portion of an individual's hearing range above a previously established reference level (NMFS 2018). Based on data from cetacean TTS measurements (see Southall *et al.* 2007), a TTS of 6 dB is considered the minimum threshold shift clearly larger than any day-to-day or session-to-session variation in a subject's normal hearing ability (Schlundt *et al.* 2000; Finneran *et al.* 2000, 2002). As described in Finneran (2015), marine mammal studies have shown the amount of TTS increases with cumulative sound exposure level (SELcum) in an accelerating fashion: At low exposures with lower SELcum, the amount of TTS is typically small and the growth curves have shallow slopes. At exposures with higher SELcum, the growth curves become steeper and approach linear relationships with the noise SEL.

Depending on the degree (elevation of threshold in dB), duration (*i.e.,* recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. We note that reduced hearing sensitivity as a simple function of aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.* 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost.

Currently, TTS data only exist for four species of cetaceans (bottlenose dolphin, beluga whale (*Delphinapterus leucas*), harbor porpoise, and Yangtze finless porpoise (*Neophocoena asiaeorientalis*)) and five species of pinnipeds exposed to a limited number of sound sources (*i.e.,* mostly tones and octave-band noise) in laboratory settings (Finneran 2015). TTS was not observed in trained spotted (*Phoca largha*) and ringed (*Pusa hispida*) seals exposed to impulsive noise at levels matching previous predictions of TTS onset (Reichmuth *et al.* 2016). In general, harbor seals and harbor porpoises have a lower TTS onset than other measured pinniped or cetacean species (Finneran 2015). Additionally, the existing marine mammal TTS data come from a limited number of individuals within these species. No data are available on noise-induced hearing loss for mysticetes. For summaries of data on TTS in marine mammals or for further discussion of TTS onset thresholds, please see Southall *et al.* (2007), Finneran and Jenkins (2012), Finneran (2015), and Table 5 in NMFS (2018). Installing piles requires a combination of impact pile driving and vibratory pile driving. For this project, these activities would not occur at the same time and there would be pauses in activities producing the sound during each day. Given these pauses and that many marine mammals are likely moving through the ensonified area and not remaining for extended periods of time, the potential for TS declines.

Behavioral Harassment—Exposure to noise from pile driving and removal also has the potential to behaviorally disturb marine mammals. Available studies show wide variation in response to underwater sound; therefore, it is difficult to predict specifically how any given sound in a particular instance might affect marine mammals perceiving the signal. If a marine mammal does react briefly to an underwater sound by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, let alone the stock or population. However, if a sound source displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (*e.g.,* Lusseau & Bejder 2007; Weilgart 2007; NRC 2005).

Disturbance may result in changing durations of surfacing and dives, number of blows per surfacing, or moving direction and/or speed; reduced/increased vocal activities; changing/cessation of certain behavioral activities (such as socializing or feeding); visible startle response or aggressive behavior (such as tail/fluke slapping or jaw clapping); avoidance of areas where sound sources are located. Pinnipeds may increase their haul out time, possibly to avoid in-water disturbance (Thorson and Reyff 2006). Behavioral responses to sound are highly variable and context-specific and any reactions depend on numerous intrinsic and extrinsic factors (*e.g.,* species, state of maturity, experience, current activity, reproductive state, auditory sensitivity, time of day), as well as the interplay between factors (*e.g.,* Richardson *et al.* 1995; Wartzok *et al.* 2003; Southall *et al.,* 2007; Weilgart 2007; Archer *et al,.* 2010). Behavioral reactions can vary not only among individuals but also within an individual, depending on previous experience with a sound source, context, and numerous other factors (Ellison *et al.* 2012), and can vary depending on characteristics associated with the sound source (*e.g.,* whether it is moving or stationary, number of sources, distance from the source). In general, pinnipeds seem more tolerant of, or at least habituate more quickly to, potentially disturbing underwater sound than do cetaceans, and generally seem to be less responsive to exposure to industrial sound than most cetaceans. Please see Appendices B–C of Southall *et al.* (2007) for a review of studies involving marine mammal behavioral responses to sound.

Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (*e.g.,* bubble nets or sediment plumes), or changes in dive behavior. As for other types of behavioral response, the frequency, duration, and temporal pattern of signal presentation, as well as differences in species sensitivity, are likely contributing factors to differences in

response in any given circumstance (*e.g.,* Croll *et al.* 2001; Nowacek *et al.* 2004; Madsen *et al.* 2006; Yazvenko *et al.* 2007). A determination of whether foraging disruptions incur fitness consequences would require information on or estimates of the energetic requirements of the affected individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Stress responses—An animal's perception of a threat may be sufficient to trigger stress responses consisting of some combination of behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune responses (*e.g.,* Seyle 1950; Moberg 2000). In many cases, an animal's first and sometimes most economical (in terms of energetic costs) response is behavioral avoidance of the potential stressor. Autonomic nervous system responses to stress typically involve changes in heart rate, blood pressure, and gastrointestinal activity. These responses have a relatively short duration and may or may not have a significant long-term effect on an animal's fitness.

Neuroendocrine stress responses often involve the hypothalamus-pituitary-adrenal system. Virtually all neuroendocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction, altered metabolism, reduced immune competence, and behavioral disturbance (*e.g.,* Moberg 1987; Blecha 2000). Increases in the circulation of glucocorticoids are also equated with stress (Romano *et al.,* 2004).

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and ''distress'' is the cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose serious fitness consequences. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other functions. This state of distress will last until the animal replenishes its energetic reserves sufficient to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses are well-studied through controlled experiments and for both laboratory and free-ranging animals (*e.g.,* Holberton *et al.,* 1996; Hood *et al.,* 1998; Jessop *et al.,* 2003; Krausman *et al.,* 2004; Lankford *et al.,* 2005). Stress responses due to exposure to anthropogenic sounds or other stressors and their effects on marine mammals have also been reviewed (Fair and Becker 2000; Romano *et al.,* 2002b) and, more rarely, studied in wild populations (*e.g.,* Romano *et al.,* 2002a). For example, Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. These and other studies lead to a reasonable expectation that some marine mammals will experience physiological stress responses upon exposure to acoustic stressors and that it is possible that some of these would be classified as ''distress.'' In addition, any animal experiencing TTS would likely also experience stress responses (NRC, 2003), however distress is an unlikely result of this project based on observations of marine mammals during previous, similar projects in the area.

Masking—Sound can disrupt behavior through masking, or interfering with, an animal's ability to detect, recognize, or discriminate between acoustic signals of interest (*e.g.,* those used for intraspecific communication and social interactions, prey detection, predator avoidance, navigation) (Richardson *et al.* 1995). Masking occurs when the receipt of a sound is interfered with by another coincident sound at similar frequencies and at similar or higher intensity, and may occur whether the sound is natural (*e.g.,* snapping shrimp, wind, waves, precipitation) or anthropogenic (*e.g.,* pile driving, shipping, sonar, seismic exploration) in origin. The ability of a noise source to mask biologically important sounds depends on the characteristics of both the noise source and the signal of interest (*e.g.,* signal-to-noise ratio, temporal variability, direction), in relation to each other and to an animal's hearing abilities (*e.g.,* sensitivity, frequency range, critical ratios, frequency discrimination, directional discrimination, age or TTS hearing loss), and existing ambient noise and propagation conditions. Masking of natural sounds can result when human activities produce high levels of background sound at frequencies important to marine mammals. Conversely, if the background level of underwater sound is high (*e.g.,* on a day with strong wind and high waves), an anthropogenic sound source would not be detectable as far away as would be possible under quieter conditions and would itself be masked.

Airborne Acoustic Effects—Pinnipeds that occur near the project site could be exposed to airborne sounds associated with pile driving and removal that have the potential to cause behavioral harassment, depending on their distance from pile driving activities. Cetaceans are not expected to be exposed to airborne sounds that would result in harassment as defined under the MMPA.

Airborne noise would primarily be an issue for pinnipeds that are swimming or hauled out near the project site within the range of noise levels exceeding the acoustic thresholds. We recognize that pinnipeds in the water could be exposed to airborne sound that may result in behavioral harassment when looking with their heads above water. Most likely, airborne sound would cause behavioral responses similar to those discussed above in relation to underwater sound. For instance, anthropogenic sound could cause hauled-out pinnipeds to exhibit changes in their normal behavior, such as reduction in vocalizations, or cause them to temporarily abandon the area and move further from the source. However, these animals would previously have been 'taken' because of exposure to underwater sound above the behavioral harassment thresholds, which are, in all cases, larger than those associated with airborne sound. Thus, the behavioral harassment of these animals is already accounted for in these estimates of potential take. Therefore, authorization of incidental take resulting from airborne sound for pinnipeds is not warranted, and airborne sound is not discussed further here.

Marine Mammal Habitat Effects

The Navy's construction activities could have localized, temporary impacts on marine mammal habitat by increasing in-water sound pressure levels and slightly decreasing water quality. Construction activities are of short duration and would likely have temporary impacts on marine mammal habitat through increases in underwater sound. Increased noise levels may affect acoustic habitat (see masking discussion above) and adversely affect marine mammal prey in the vicinity of the project area (see discussion below). During impact and vibratory pile driving, elevated levels of underwater noise would ensonify Hood Canal where both fish and mammals may occur and could affect foraging success. Additionally, marine mammals may

avoid the area during construction, however, displacement due to noise is expected to be temporary and is not expected to result in long-term effects to the individuals or populations.

A temporary and localized increase in turbidity near the seafloor would occur in the immediate area surrounding the area where piles are installed (and removed in the case of the temporary piles). The sediments on the sea floor will be disturbed during pile driving; however, suspension will be brief and localized and is unlikely to measurably affect marine mammals or their prey in the area. In general, turbidity associated with pile installation is localized to about a 25–foot (7.6–meter) radius around the pile (Everitt *et al.* 1980). Cetaceans are not expected to be close enough to the pile driving areas to experience effects of turbidity, and any pinnipeds could avoid localized areas of turbidity. Therefore, we expect the impact from increased turbidity levels to be discountable to marine mammals and do not discuss it further.

In-Water Construction Effects on Potential Foraging Habitat

The proposed activities would not result in permanent impacts to habitats used directly by marine mammals except for the actual footprint of the project. The total seafloor area affected by pile installation and removal is a very small area compared to the vast foraging area available to marine mammals in Hood Canal.

Avoidance by potential prey (*i.e.,* fish) of the immediate area due to the temporary loss of this foraging habitat is also possible. The duration of fish avoidance of this area after pile driving stops is unknown, but we anticipate a rapid return to normal recruitment, distribution and behavior. Any behavioral avoidance by fish of the disturbed area would still leave large areas of fish and marine mammal foraging habitat in the nearby vicinity in Hood Canal.

Effects on Potential Prey

Sound may affect marine mammals through impacts on the abundance, behavior, or distribution of prey species (*e.g.,* fish). Marine mammal prey varies by species, season, and location. Here, we describe studies regarding the effects of noise on known marine mammal prey.

Fish utilize the soundscape and components of sound in their environment to perform important functions such as foraging, predator avoidance, mating, and spawning (*e.g.,* Zelick *et al.,* 1999; Fay, 2009). Depending on their hearing anatomy and peripheral sensory structures, which vary among species, fishes hear sounds using pressure and particle motion sensitivity capabilities and detect the motion of surrounding water (Fay *et al.,* 2008). The potential effects of noise on fishes depends on the overlapping frequency range, distance from the sound source, water depth of exposure, and species-specific hearing sensitivity, anatomy, and physiology. Key impacts to fishes may include behavioral responses, hearing damage, barotrauma (pressure-related injuries), and mortality.

Fish react to sounds which are especially strong and/or intermittent low-frequency sounds, and behavioral responses such as flight or avoidance are the most likely effects. Short duration, sharp sounds can cause overt or subtle changes in fish behavior and local distribution. The reaction of fish to noise depends on the physiological state of the fish, past exposures, motivation (*e.g.,* feeding, spawning, migration), and other environmental factors. Hastings and Popper (2005) identified several studies that suggest fish may relocate to avoid certain areas of sound energy. Additional studies have documented effects of pile driving on fish, although several are based on studies in support of large, multiyear bridge construction projects (*e.g.,* Scholik and Yan, 2001, 2002; Popper and Hastings, 2009). Several studies have demonstrated that impulse sounds might affect the distribution and behavior of some fishes, potentially impacting foraging opportunities or increasing energetic costs (*e.g.,* Fewtrell and McCauley, 2012; Pearson *et al.,* 1992; Skalski *et al.,* 1992; Santulli *et al.,* 1999; Paxton *et al.,* 2017). However, some studies have shown no or slight reaction to impulse sounds (*e.g.,* Pena *et al.,* 2013; Wardle *et al.,* 2001; Jorgenson and Gyselman, 2009; Cott *et al.,* 2012).

SPLs of sufficient strength have been known to cause injury to fish and fish mortality. However, in most fish species, hair cells in the ear continuously regenerate and loss of auditory function likely is restored when damaged cells are replaced with new cells. Halvorsen *et al.* (2012a) showed that a TTS of 4–6 dB was recoverable within 24 hours for one species. Impacts would be most severe when the individual fish is close to the source and when the duration of exposure is long. Injury caused by barotrauma can range from slight to severe and can cause death, and is most likely for fish with swim bladders. Barotrauma injuries have been documented during controlled exposure to impact pile driving (Halvorsen *et al.,* 2012b; Casper *et al.,* 2013).

The most likely impact to fish from pile driving activities at the project areas would be temporary behavioral avoidance of the area. The duration of fish avoidance of an area after pile driving stops is unknown, but a rapid return to normal recruitment, distribution and behavior is anticipated.

The area impacted by the project is relatively small compared to the available habitat in the remainder of Hood Canal. Any behavioral avoidance by fish of the disturbed area would still leave significantly large areas of fish and marine mammal foraging habitat in the nearby vicinity. Additionally, as noted previously, the Navy will adhere to the IWWW for pile extraction and installation (July 16 to January 15) to reduce potential effects to salmonids, including juvenile ESA-listed salmonids. As described in the preceding, the potential for the Navy's construction to affect the availability of prey to marine mammals or to meaningfully impact the quality of physical or acoustic habitat is considered to be insignificant.

Estimated Take

This section provides an estimate of the number of incidental takes proposed for authorization through this IHA, which will inform both NMFS's consideration of ''small numbers'' and the negligible impact determination.

Harassment is the only type of take expected to result from these activities. Except with respect to certain activities not pertinent here, section 3(18) of the MMPA defines ''harassment'' as any act of pursuit, torment, or annoyance, which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

Authorized takes would primarily be by Level B harassment, as use of the acoustic sources (*i.e.,* vibratory and impact pile driving) has the potential to result in disruption of behavioral patterns for individual marine mammals. There is also some potential for auditory injury (Level A harassment) to result, primarily for phocids, because predicted auditory injury zones are larger than for mid-frequency cetaceans and otariids, and Navy expects that protected species observers (PSOs) will not be able to effectively observe the entire Level A harassment zone due to

the numerous docks in the area. Auditory injury is unlikely to occur for mid-frequency cetaceans, high-frequency cetaceans, and otariids. The proposed mitigation and monitoring measures are expected to minimize the severity of the taking to the extent practicable.

As described previously, no mortality is anticipated or proposed to be authorized for this activity. Below we describe how the take is estimated.

Generally speaking, we estimate take by considering: (1) Acoustic thresholds above which NMFS believes the best available science indicates marine mammals will be behaviorally harassed or incur some degree of permanent hearing impairment; (2) the area or volume of water that will be ensonified above these levels in a day; (3) the density or occurrence of marine mammals within these ensonified areas; and, (4) and the number of days of activities. We note that while these basic factors can contribute to a basic calculation to provide an initial prediction of takes, additional information that can qualitatively inform take estimates is also sometimes available (*e.g.,* previous monitoring results or average group size). Below, we describe the factors considered here in more detail and present the proposed take estimate.

Acoustic Thresholds

NMFS recommends the use of acoustic thresholds that identify the received level of underwater sound above which exposed marine mammals would be reasonably expected to be behaviorally harassed (equated to Level B harassment) or to incur PTS of some degree (equated to Level A harassment).

Level B Harassment for non-explosive sources—Though significantly driven by received level, the onset of behavioral disturbance from anthropogenic noise exposure is also informed to varying degrees by other factors related to the source (*e.g.,* frequency, predictability, duty cycle), the environment (*e.g.,* bathymetry), and the receiving animals (hearing, motivation, experience, demography, behavioral context) and can be difficult to predict (Southall *et al.,* 2007, Ellison *et al.,* 2012). Based on what the available science indicates and the practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 μPa (rms) for continuous (*e.g.,* vibratory pile-driving, drilling) and above 160 dB re 1 μPa (rms) for non-explosive impulsive (*e.g.,* seismic airguns) or intermittent (*e.g.,* scientific sonar) sources.

Navy's proposed activity includes the use of continuous (vibratory pile driving) and impulsive (impact pile driving) sources, and therefore the 120 and 160 dB re 1 μPa (rms) thresholds are applicable.

Level A harassment for non-explosive sources—NMFS' Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0) (Technical Guidance, 2018) identifies dual criteria to assess auditory injury (Level A harassment) to five different marine mammal groups (based on hearing sensitivity) as a result of exposure to noise from two different types of sources (impulsive or non-impulsive). Navy's proposed activity includes the use of impulsive (impact pile driving) and non-impulsive (vibratory pile driving) sources.

These thresholds are provided in the table below. The references, analysis, and methodology used in the development of the thresholds are described in NMFS 2018 Technical Guidance, which may be accessed at *https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance.*

TABLE 5—THRESHOLDS IDENTIFYING THE ONSET OF PERMANENT THRESHOLD SHIFT

Hearing group	PTS onset acoustic thresholds * (received level)	
	Impulsive	Non-impulsive
Low-Frequency (LF) Cetaceans	*Cell 1:* $L_{pk,flat}$: 219 dB; $L_{E,LF,24h}$: 183 dB	*Cell 2:* $L_{E,LF,24h}$: 199 dB.
Mid-Frequency (MF) Cetaceans	*Cell 3:* $L_{pk,flat}$: 230 dB; $L_{E,MF,24h}$: 185 dB	*Cell 4:* $L_{E,MF,24h}$: 198 dB.
High-Frequency (HF) Cetaceans	*Cell 5:* $L_{pk,flat}$: 202 dB; $L_{E,HF,24h}$: 155 dB	*Cell 6:* $L_{E,HF,24h}$: 173 dB.
Phocid Pinnipeds (PW) (Underwater)	*Cell 7:* $L_{pk,flat}$: 218 dB; $L_{E,PW,24h}$: 185 dB	*Cell 8:* $L_{E,PW,24h}$: 201 dB.
Otariid Pinnipeds (OW) (Underwater)	*Cell 9:* $L_{pk,flat}$: 232 dB; $L_{E,OW,24h}$: 203 dB	*Cell 10:* $L_{E,OW,24h}$: 219 dB.

* Dual metric acoustic thresholds for impulsive sounds: Use whichever results in the largest isopleth for calculating PTS onset. If a non-impulsive sound has the potential of exceeding the peak sound pressure level thresholds associated with impulsive sounds, these thresholds should also be considered.

Note: Peak sound pressure (L_{pk}) has a reference value of 1 μPa, and cumulative sound exposure level (L_E) has a reference value of 1μPa^{2}s. In this Table, thresholds are abbreviated to reflect American National Standards Institute standards (ANSI 2013). However, peak sound pressure is defined by ANSI as incorporating frequency weighting, which is not the intent for this Technical Guidance. Hence, the subscript "flat" is being included to indicate peak sound pressure should be flat weighted or unweighted within the generalized hearing range. The subscript associated with cumulative sound exposure level thresholds indicates the designated marine mammal auditory weighting function (LF, MF, and HF cetaceans, and PW and OW pinnipeds) and that the recommended accumulation period is 24 hours. The cumulative sound exposure level thresholds could be exceeded in a multitude of ways (*i.e.,* varying exposure levels and durations, duty cycle). When possible, it is valuable for action proponents to indicate the conditions under which these acoustic thresholds will be exceeded.

Ensonified Area

Here, we describe operational and environmental parameters of the activity that will feed into identifying the area ensonified above the acoustic thresholds, which include source levels and transmission loss coefficient.

The sound field in the project area is the existing background noise plus additional construction noise from the proposed project. Marine mammals are expected to be affected via sound generated by the primary components of the project (*i.e.,* impact pile driving and vibratory pile driving and removal). The largest calculated Level B harassment zone is 11.7 km (7.3 mi) from the

source, with an area of 49.1 km² (18.9 mi²).

The source levels were derived from the Navy's document titled ''Proxy Source Sound Levels and Potential Bubble Curtain Attenuation for Acoustic Modeling of Nearshore Marine Pile Driving at Navy Installations in Puget Sound'' (Navy 2015a). In that document, the Navy reviewed relevant data available for various types and sizes of piles typically used for pile driving and recommend proxy source values for Navy installations in Puget Sound. This document is included as Appendix B in the Navy's application. Source levels for each pile size and activity are presented in Table 6.

The Navy will implement bubble curtains (*e.g.* pneumatic barrier typically comprised of hosing or PVC piping that disrupts underwater noise propagation; see Proposed Mitigation section below) during impact pile driving, with the possible exception of short periods when the device is turned off to test the effectiveness of the noise attenuation device. We have reduced the source level for these activities by 8 dB in consideration of site-specific measurements of source level reduction with use of bubble curtains (Navy, 2015). These reductions ranged from 8 dB to 10 dB. In their analysis, the Navy averaged different metrics for the same pile size. NMFS independently calculated the average source level reduction, averaging reductions of the same metric (ex: SPLrms) reported for both 36-in and 48-in piles. As such, NMFS calculated an SEL reduction of 8.5 dB, an SPLrms reduction of 8 dB, and an SPLpk reduction of 10 dB. Therefore, given that the site-specific 8 dB reduction proposed by the Navy is the same or lower than the result of NMFS's site-specific calculation, NMFS preliminarily accepted Navy's proposal to use an 8 dB reduction during impact pile driving.

TABLE 6—PROJECT SOUND SOURCE LEVELS (NAVY, 2015)

Pile type and size	Installation method	Source level @10m		
		dB RMS	dB Peak	dB SEL
36-inch Steel	Impact	[a] 194	[a] 211	[a] 181
24-inch Steel	Vibratory	161		
30-inch Steel				166
36-inch Steel				166

[a] Unattenuated.

Transmission loss (TL) is the decrease in acoustic intensity as an acoustic pressure wave propagates out from a source. TL parameters vary with frequency, temperature, sea conditions, current, source and receiver depth, water depth, water chemistry, and bottom composition and topography. The general formula for underwater TL is:

$$TL = B * Log_{10} (R_1/R_2),$$

where

TL = transmission loss in dB
B = transmission loss coefficient
R_1 = the distance of the modeled SPL from the driven pile, and
R_2 = the distance from the driven pile of the initial measurement

Absent site-specific acoustical monitoring with differing measured transmission loss, a practical spreading value of 15 is used as the transmission loss coefficient in the above formula. Site-specific transmission loss data for the TPP pier site are not available, therefore the default coefficient of 15 is used to determine the distances to the Level A and Level B harassment thresholds.

When the NMFS Technical Guidance (2016) was published, in recognition of the fact that ensonified area/volume could be more technically challenging to predict because of the duration component in the new thresholds, we developed a User Spreadsheet that includes tools to help predict a simple isopleth that can be used in conjunction with marine mammal density or occurrence to help predict takes. We note that because of some of the assumptions included in the methods used for these tools, we anticipate that isopleths produced are typically going to be overestimates of some degree, which may result in some degree of overestimate of Level A harassment take. However, these tools offer the best way to predict appropriate isopleths when more sophisticated 3D modeling methods are not available, and NMFS continues to develop ways to quantitatively refine these tools, and will qualitatively address the output where appropriate. For stationary sources such as pile driving, NMFS User Spreadsheet predicts the distance at which, if a marine mammal remained at that distance the whole duration of the activity, it would incur PTS. Inputs used in the User Spreadsheet, and the resulting isopleths are reported below.

TABLE 7—USER SPREADSHEET INPUT PARAMETERS USED FOR CALCULATING LEVEL A HARASSMENT ISOPLETHS

Pile size and installation method	Spreadsheet tab used	Weighting factor adjustment (kHz)	Source level	Number of piles within 24-h period	Duration to drive a single pile (minutes)	Number of strikes per pile	Propagation (xLogR)	Distance from source level measurement (meters)
36-inch Steel-Impact.	E.1) Impact pile driving.	2	173 dB SEL[a].	4	30	400	15	10
24-inch Steel-Vibratory.	A.1) Vibratory pile driving.	2.5	161 dB RMS.	[b] 5	60			
30-inch Steel-Vibratory.			166 dB RMS					
36-inch Steel-Vibratory.			166 dB RMS					

[a] This source level includes an 8dB reduction from the use of a bubble curtain.
[b] The Navy expects to install only 4 piles per day using a vibratory hammer; however, for purposes of calculating the Level A harassment zones, they have conservatively assumed that they may install 5 piles per day.

TABLE 8—CALCULATED DISTANCES TO LEVEL A AND LEVEL B HARASSMENT ISOPLETHS

Pile type and size	Installation method	Distance to level A harassment isopleth (m)					Distance to level B harassment isopleth (m)
		LF cetacean	MF cetacean	HF cetacean	Phocid	Otariid	
36-inch Steel	Impact	294 (1m pk)	11	351 (14m pk)	158 (1m pk)	12	541
24-inch Steel	Vibratory	20	2	30	12	1	5,400
30-inch Steel		43	4	64	26	2	11,700
36-inch Steel		43	4	64	26	2	11,700

Marine Mammal Occurrence and Take Calculation and Estimation

In this section we provide the information about the presence, density, or group dynamics of marine mammals that will inform the take calculations. We describe how the information provided above is brought together to produce a quantitative take estimate.

Killer Whale

Transient killer whales occasionally occur throughout Puget Sound but are rare in Hood Canal. In Puget Sound, they are typically observed in small groups with an average group size of six individuals (Houghton, 2012). Based on this Puget Sound average, the Navy estimated that two groups of six whales may occur within the Level B harassment zone during construction each year, and has requested 12 Level B harassment takes of killer whale for Year 1 and Year 2. NMFS concurs with this estimate, and proposes to authorize 12 Level B harassment takes of killer whale in each year. Given the estimated number of construction days in Year 2 (10 days), NMFS expects that 12 Level B harassment takes is a conservative estimate for Year 2, but is appropriate given that it accounts for the occurrence of just two groups.

The largest Level A harassment zone for mid-frequency cetaceans extends 11 m from the source during impact pile driving of 36-inch steel piles (Table 8). Given the small size of the Level A harassment zones, we would not expect Level A harassment take of killer whales to occur. Additionally, the Navy is planning to implement a 355 m shutdown zone for all cetaceans during that activity (Table 10). These shutdown zones are expected to eliminate the potential for Level A harassment take of killer whale. Therefore, NMFS does not propose to authorize Level A harassment take of killer whale in Year 1 or Year 2.

Harbor Porpoise

Harbor porpoises may be present in all major regions of Puget Sound throughout the year. Aerial surveys conducted throughout 2013 to 2015 in Puget Sound indicated density in Puget Sound was 0.91 individuals/sq km) (95 percent CI = 0.72–1.10, all seasons pooled) and density in Hood Canal was 0.44/sq km (95 percent CI = 0.29–0.75, all seasons pooled) (Smultea *et al.,* 2017). Mean group size of harbor porpoises in Puget Sound in the 2013–2015 surveys was 1.7 in Hood Canal.

In consideration of the harbor porpoise take estimate, the Navy conservatively assumed that vibratory installation of 36-inch piles would occur on every in-water work day, given that that activity resulted in the largest Level B harassment zone. The Navy estimated Level B harassment takes of harbor porpoise by multiplying the 0.44 animals/km^2 by 49.1 km^2 (estimated Level B harassment zone during vibratory driving of 36-inch piles) by the number of in-water workdays during each year. Therefore, during Year 1, the Navy estimated 1,728 Level B harassment takes (0.44 animals/km^2 × 49.1km^2 × 80 days). During Year 2, the Navy estimated 216 Level B harassment takes (0.44 animals/km^2 × 49.1 km^2 × 10 days). NMFS concurs with this approach, and proposes to authorize 1,728 Level B harassment takes of harbor porpoise in Year 1, and 216 Level B harassment takes of harbor porpoise in Year 2.

The largest Level A harassment zone for high-frequency cetaceans extends 351 m from the source during impact pile driving of 36-inch steel piles (Table 8). The Navy is planning to implement a 355 m shutdown zone for all cetaceans during that activity (Table 10), which incorporates the entire Level A harassment zone, and the 14 m peak PTS isopleth (Table 8). Therefore, the shutdown zones are expected to eliminate the potential for Level A harassment take of harbor porpoise, and NMFS does not propose to authorize Level A harassment take of harbor porpoise.

Steller Sea Lion

Steller sea lions are routinely seen hauled out from mid-September through May on submarines at Naval Base Kitsap Bangor, with a maximum haulout count of 15 individuals in November 2018. Because the daily average number of Steller sea lions hauled out at Kitsap Bangor has increased since 2013 compared to prior years, the Navy relied on monitoring data from July 2012 through February 2019 to determine the average of the maximum count of hauled out Steller sea lions for each month in the IWWW (Navy, 2016, 2019). While pinnipeds may haul out longer than the period required for pile driving, therefore not being exposed to underwater sound, the Navy conservatively assumed that any Steller sea lion that hauls out at Kitsap Bangor may enter the Level B harassment zone each day during pile driving.

For each in-water work month, the Navy averaged the maximum number of hauled out Steller sea lions observed in a single survey at Kitsap Bangor during that month for each year (2008 to 2019; see Appendix A of the Navy's application). The Navy then averaged these monthly averages across the entire in-water work period, resulting in a maximum average of four Steller sea lions hauled out per day. The Navy assumed that each of these animals may enter the Level B harassment zone on each in-water work day. Therefore, the Navy requested 320 Level B harassment takes of Steller sea lion in Year 1 (4 Steller sea lions × 80 in-water work days), and 40 Level B harassment takes of Steller sea lions during Year 2 (4 Steller sea lions × 10 in-water work days). NMFS concurs with this approach and proposes to authorize 320 Level B harassment takes of Steller sea lion during Year 1, and 40 Level B harassment takes of Steller sea lion during Year 2.

The largest Level A harassment zone for otariids extends 11 m from the source during impact pile driving of 36-inch steel piles (Table 8). Given the small size of the Level A harassment zones, we would not expect Level A harassment take of Steller sea lion to occur. Additionally, the Navy is planning to implement a 15m shutdown zone during that activity (Table 10). The Navy's shutdown zones are expected to eliminate the potential for Level A

harassment take of Steller sea lion. Therefore, NMFS does not propose to authorize Level A harassment take of Steller sea lion.

California sea lion

From August through June, California sea lions routinely haul out on the PSB floats and submarines at Kitsap Bangor. For each in-water work month, the Navy averaged the maximum number of hauled out California sea lions observed in a single survey at Kitsap Bangor during that month for each year (2008 to 2019; see Appendix A of the Navy's application). The Navy then averaged these monthly averages across the entire in-water work period, resulting in a maximum average of 54 California sea lions hauled out per day. The daily average number of California sea lions hauled out at Kitsap Bangor has increased since 2013 compared to prior years. Therefore, the Navy relied on monitoring data from July 2012 through February 2019 to determine the average of the maximum count (Navy, 2016, 2019).

While pinnipeds may haul out longer than the period required for pile driving, therefore not being exposed to underwater sound, the Navy conservatively assumed that any California sea lion hauled out at Kitsap Bangor may swim into the Level B harassment zone on each pile driving day. Therefore, the Navy requested 4,320 Level B harassment takes of California sea lion in Year 1 (54 California sea lions × 80 in-water work days), and 540 Level B harassment takes of California sea lions during Year 2 (54 California sea lions × 10 in-water work days). NMFS concurs with this approach and proposes to authorize 4,320 Level B harassment takes of California sea lion during Year 1, and 540 Level B harassment takes of California sea lion during Year 2.

The largest Level A harassment zone for otariids extends 11 m from the source during impact pile driving of 36-inch steel piles (Table 8). Given the small size of the Level A harassment zones, we would not expect Level A harassment take of California sea lion to occur. Additionally, the Navy is planning to implement a 15 m shutdown zone during that activity (Table 10). The Navy's shutdown zones are expected to eliminate the potential for Level A harassment take of California sea lion. Therefore, NMFS does not propose to authorize Level A harassment take of California sea lion.

Harbor Seal

The harbor seal is the only species of marine mammal that is consistently abundant and considered resident in Hood Canal (Jeffries *et al.,* 2003). The closest major haulouts to Kitsap Bangor that are regularly used by harbor seals are the mouth of the Dosewallips River located approximately 13.2 km (8.2 mi) away. No harbor seal haulouts were seen on the shoreline opposite Kitsap Bangor (the east-side of the Toandos Peninsula) during 2015 and 2016 beach seine surveys. A small haulout occurs at Kitsap Bangor under Marginal Wharf and small numbers of harbor seals are known to routinely haul out around the Carderock pier (see Figure 1–2 of the Navy's application). Boat-based surveys and monitoring indicate that harbor seals regularly swim in the waters at Kitsap Bangor. Hauled out adults, mother/pup pairs, and neonates have been documented occasionally but quantitative data are limited. Incidental surveys in August and September 2016 recorded as many as 28 harbor seals hauled out under Marginal Wharf or swimming in adjacent waters. Assuming a few other individuals may be present elsewhere on the Kitsap Bangor waterfront, the Navy estimates that 35 harbor seals may be present during summer and early fall months. Based on haulout survey data from Naval Station Everett (Navy, 2016), the number of harbor seals present at Kitsap Bangor is likely to be lower in late fall and winter months.

The Navy conservatively assumed that each of the estimated 35 harbor seals may occur within the Level B harassment zone on each pile driving day. Therefore, the Navy requested 2,800 Level B harassment takes of harbor seal in Year 1 (35 harbor seals × 80 in-water work days), and 350 Level B harassment takes of harbor seal during Year 2 (35 harbor seals × 10 in-water work days). NMFS concurs with this approach and proposes to authorize 2,800 Level B harassment takes of harbor seal during Year 1, and 350 Level B harassment takes of harbor seal during Year 2.

The largest Level A harassment zone for phocids during Year 1 extends 158 m during impact installation of 36-inch steel piles (Table 8). The Navy is planning to implement a 160 m shutdown zone during that activity (Table 10), which incorporates the entire Level A harassment zone, and the 1 m peak PTS isopleth (Table 8). However, the Navy estimates that some harbor seals may enter, and remain inside the Level A harassment zone undetected by PSOs for a period long enough to be taken by Level A harassment during Year 1. NMFS concurs, and proposes to authorize 20 Level A harassment takes of harbor seal in Year 1 (1 harbor seal for every 4 in-water work days).

During Year 2, the largest Level A harassment zone for phocids extends 26 m from the source during vibratory pile driving of 30 and 36-inch steel piles, as no impact pile driving is planned for Year 2. The Navy expects to be able to effectively monitor this zone and implement a 30 m shutdown zone. Therefore, the Navy does not expect Level A harassment take to occur during Year 2. NMFS concurs that the Navy's shutdown zones are expected to eliminate the potential for Level A harassment take of harbor seal in Year 2, and does not propose to authorize Level A harassment take of harbor seal in Year 2.

TABLE 9—ESTIMATED TAKE BY LEVEL A AND LEVEL B HARASSMENT, BY SPECIES AND STOCK

Species	Stock	Stock Abundance	Year 1			Year 2	
			Level A harassment take	Level B harassment take	Total take (percent of stock)	Level B harassment take (percent of stock)	Total take (percent of stock)
Killer whale	West Coast Transient.	243	0	12	12 (4.9)	12	12 (4.9)
Harbor porpoise	Washington Inland Waters.	11,233		1,728	1,728 (15.4)	216	216 (1.9)
Steller sea lion	Eastern U.S.	43,201		320	320 (0.7)	40	40 (0.1)
California sea lion	United States	257,606		4,320	4,320 (1.7)	540	540 (0.2)

TABLE 9—ESTIMATED TAKE BY LEVEL A AND LEVEL B HARASSMENT, BY SPECIES AND STOCK—Continued

Species	Stock	Stock Abundance	Year 1			Year 2	
			Level A harassment take	Level B harassment take	Total take (percent of stock)	Level B harassment take (percent of stock)	Total take (percent of stock)
Harbor seal	Washington Inland Waters, Hood Canal.	Unknown	20	2,800	2,820 (Unknown).	350	350 (Unknown)

Proposed Mitigation

In order to issue an IHA under Section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to the activity, and other means of effecting the least practicable impact on the species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of the species or stock for taking for certain subsistence uses (latter not applicable for this action). NMFS regulations require applicants for incidental take authorizations to include information about the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact upon the affected species or stocks and their habitat (50 CFR 216.104(a)(11)).

In evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, as well as subsistence uses where applicable, we carefully consider two primary factors:

(1) The manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, and their habitat. This considers the nature of the potential adverse impact being mitigated (likelihood, scope, range). It further considers the likelihood that the measure will be effective if implemented (probability of accomplishing the mitigating result if implemented as planned), the likelihood of effective implementation (probability implemented as planned), and;

(2) The practicability of the measures for applicant implementation, which may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

In addition to the measures described later in this section, the Navy will employ the following mitigation measures:

- For in-water heavy machinery work other than pile driving, if a marine mammal comes within 10 m, operations shall cease and vessels shall reduce speed to the minimum level required to maintain steerage and safe working conditions;
- Conduct briefings between construction supervisors and crews and the marine mammal monitoring team prior to the start of all pile driving activity and when new personnel join the work, to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures;
- For those marine mammals for which Level B harassment take has not been requested, in-water pile installation/removal will shut down immediately if such species are observed within or entering the Level B harassment zone; and
- If take reaches the authorized limit for an authorized species, pile installation/removal will shut down immediately if these species approach the Level B harassment zone to avoid additional take.

The following mitigation measures apply to the Navy's in-water construction activities.

- *Establishment of Shutdown Zones*—The Navy will establish shutdown zones for all pile driving and removal activities. The purpose of a shutdown zone is generally to define an area within which shutdown of the activity would occur upon sighting of a marine mammal (or in anticipation of an animal entering the defined area). Shutdown zones will vary based on the activity type and marine mammal hearing group (Table 10). In addition to the shutdown zones listed in Table 10, the Navy has proposed to shut down pile driving if a cetacean is observed within the Level B harassment zone.
- *PSOs*—The placement of PSOs during all pile driving and removal activities (described in detail in the Proposed Monitoring and Reporting section) will ensure that the entire shutdown zone is visible during pile driving and removal (except where structures may interfere with visibility of harbor seals). Should environmental conditions deteriorate such that marine mammals within the entire shutdown zone would not be visible (*e.g.,* fog, heavy rain), pile driving and removal must be delayed until the PSO is confident marine mammals within the shutdown zone could be detected.

TABLE 10—SHUTDOWN ZONES DURING PILE INSTALLATION AND REMOVAL

	Cetaceans (m)	Phocids (m)	Otariids (m)
All Vibratory Pile Driving	65	30	10
All Impact Pile Driving	355	160	15

- *Monitoring for Level A and Level B Harassment*—The Navy will monitor the Level B harassment zones (areas where SPLs are equal to or exceed the 160 dB rms threshold for impact driving and the 120 dB rms threshold during vibratory pile driving) to the extent practicable and the Level A harassment zones. Monitoring zones provide utility

for observing by establishing monitoring protocols for areas adjacent to the shutdown zones. Monitoring zones enable observers to be aware of and communicate the presence of marine mammals in the project area outside the shutdown zone and thus prepare for a potential cessation of activity should the animal enter the shutdown zone. Placement of PSOs on the pier, shoreline, and a vessel (see Proposed Monitoring and Reporting) around the TPP site will allow PSOs to observe marine mammals within the Level B harassment zones.

• *Pre-activity Monitoring*—Prior to the start of daily in-water construction activity, or whenever a break in pile driving/removal of 30 minutes or longer occurs, PSOs will observe the shutdown and monitoring zones for a period of 30 minutes. The shutdown zone will be considered cleared when a marine mammal has not been observed within the zone for that 30-minute period. If a marine mammal is observed within the shutdown zone, a soft-start cannot proceed until the animal has left the zone or has not been observed for 15 minutes. When a marine mammal for which Level B harassment take is authorized is present in the Level B harassment zone, activities may begin and Level B harassment take will be recorded. If the entire Level B harassment zone is not visible at the start of construction, pile driving activities can begin. If work ceases for more than 30 minutes, the pre-activity monitoring of the shutdown zones will commence.

• *Soft Start*—Soft-start procedures are believed to provide additional protection to marine mammals by providing warning and/or giving marine mammals a chance to leave the area prior to the hammer operating at full capacity. For impact pile driving, contractors will be required to provide an initial set of three strikes from the hammer at reduced energy, followed by a 30-second waiting period. This procedure will be conducted three times before impact pile driving begins. Soft start will be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.

• *Pile driving energy attenuator*—The Navy will use a marine pile-driving energy attenuator (*i.e.,* air bubble curtain system) during impact pile driving. The use of sound attenuation will reduce SPLs and the size of the zones of influence for Level A harassment and Level B harassment. Bubble curtains will meet the following requirements:

○ The bubble curtain must distribute air bubbles around 100 percent of the piling perimeter for the full depth of the water column.

○ The lowest bubble ring shall be in contact with the mudline for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent mudline contact. No parts of the ring or other objects shall prevent full mudline contact.

○ The bubble curtain shall be operated such that there is proper (equal) balancing of air flow to all bubblers.

Based on our evaluation of the Navy's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means effecting the least practicable impact on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring and Reporting

In order to issue an IHA for an activity, Section 101(a)(5)(D) of the MMPA states that NMFS must set forth requirements pertaining to the monitoring and reporting of such taking. The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area. Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring.

Monitoring and reporting requirements prescribed by NMFS should contribute to improved understanding of one or more of the following:

• Occurrence of marine mammal species or stocks in the area in which take is anticipated (*e.g.,* presence, abundance, distribution, density).

• Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of: (1) Action or environment (*e.g.,* source characterization, propagation, ambient noise); (2) affected species (*e.g.,* life history, dive patterns); (3) co-occurrence of marine mammal species with the action; or (4) biological or behavioral context of exposure (*e.g.,* age, calving or feeding areas).

• Individual marine mammal responses (behavioral or physiological) to acoustic stressors (acute, chronic, or cumulative), other stressors, or cumulative impacts from multiple stressors.

• How anticipated responses to stressors impact either: (1) Long-term fitness and survival of individual marine mammals; or (2) populations, species, or stocks.

• Effects on marine mammal habitat (*e.g.,* marine mammal prey species, acoustic habitat, or other important physical components of marine mammal habitat).

• Mitigation and monitoring effectiveness.

Visual Monitoring

Marine mammal monitoring must be conducted in accordance with the Marine Mammal Monitoring Plan. Marine mammal monitoring during pile driving and removal must be conducted by NMFS-approved PSOs in a manner consistent with the following:

• Independent PSOs (*i.e.,* not construction personnel) who have no other assigned tasks during monitoring periods must be used;

• Where a team of three or more PSOs are required, a lead observer or monitoring coordinator must be designated. The lead observer must have prior experience working as a marine mammal observer during construction;

• Other PSOs may substitute education (degree in biological science or related field) or training for experience; and

• The Navy must submit PSO curriculum vitae for approval by NMFS prior to the onset of pile driving.

PSOs must have the following additional qualifications:

• Ability to conduct field observations and collect data according to assigned protocols.

• Experience or training in the field identification of marine mammals, including the identification of behaviors.

• Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations.

• Writing skills sufficient to prepare a report of observations including but not limited to the number and species of marine mammals observed; dates and times when in-water construction activities were conducted; dates, times, and reason for implementation of mitigation (or why mitigation was not implemented when required); and marine mammal behavior.

• Ability to communicate orally, by radio or in person, with project

personnel to provide real-time information on marine mammals observed in the area as necessary.

At least two PSOs will monitor for marine mammals during all pile driving and removal activities. PSO locations will provide a view of the entire shutdown zone for all activities, other than areas where structures may potentially block limited portions of the zone, and as much of the Level B harassment zones as possible. PSO locations are as follows:

i. During vibratory pile driving, two PSOs will be stationed on the pier or shore.

ii. During impact pile driving, two PSOs will be stationed on the pier, and one additional PSO will observe from a vessel positioned approximately 200 m from shore.

Monitoring will be conducted 30 minutes before, during, and 30 minutes after pile driving/removal activities. In addition, observers shall record all incidents of marine mammal occurrence, regardless of distance from activity, and shall document any behavioral reactions in concert with distance from piles being driven or removed. Pile driving activities include the time to install or remove a single pile or series of piles, as long as the time elapsed between uses of the pile driving equipment is no more than 30 minutes.

Reporting

A draft marine mammal monitoring report will be submitted to NMFS within 90 days after the completion of pile driving and removal activities. The report will include an overall description of work completed, a narrative regarding marine mammal sightings, and associated PSO data sheets. Specifically, the report must include:

- Dates and times (begin and end) of all marine mammal monitoring.
- Construction activities occurring during each daily observation period, including how many and what type of piles were driven or removed and by what method (*i.e.,* impact or vibratory).
- Weather parameters and water conditions during each monitoring period (*e.g.,* wind speed, percent cover, visibility, sea state).
- The number of marine mammals observed, by species, relative to the pile location and if pile driving or removal was occurring at time of sighting.
- Age and sex class, if possible, of all marine mammals observed.
- PSO locations during marine mammal monitoring.
- Distances and bearings of each marine mammal observed to the pile being driven or removed for each sighting (if pile driving or removal was occurring at time of sighting).
- Description of any marine mammal behavior patterns during observation, including direction of travel and estimated time spent within the Level A and Level B harassment zones while the source was active.
- Number of individuals of each species (differentiated by month as appropriate) detected within the monitoring zone, and estimates of number of marine mammals taken, by species (a correction factor may be applied to total take numbers, as appropriate).
- Detailed information about any implementation of any mitigation triggered (*e.g.,* shutdowns and delays), a description of specific actions that ensued, and resulting behavior of the animal, if any.
- Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals.

If no comments are received from NMFS within 30 days, the draft report will constitute the final report. If comments are received, a final report addressing NMFS comments must be submitted within 30 days after receipt of comments.

In the event that personnel involved in the construction activities discover an injured or dead marine mammal, the IHA-holder shall report the incident to the Office of Protected Resources (OPR) (301–427–8401), NMFS and to the West Coast Region Stranding Hotline (866–767–6114) as soon as feasible. If the death or injury was clearly caused by the specified activity, the IHA-holder must immediately cease the specified activities until NMFS is able to review the circumstances of the incident and determine what, if any, additional measures are appropriate to ensure compliance with the terms of the IHA. The IHA-holder must not resume their activities until notified by NMFS.

The report must include the following information:

i. Time, date, and location (latitude/longitude) of the first discovery (and updated location information if known and applicable);

ii. Species identification (if known) or description of the animal(s) involved;

iii. Condition of the animal(s) (including carcass condition if the animal is dead);

iv. Observed behaviors of the animal(s), if alive;

v. If available, photographs or video footage of the animal(s); and

vi. General circumstances under which the animal was discovered.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (*i.e.,* population-level effects). An estimate of the number of takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be ''taken'' through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity, duration), the context of any responses (*e.g.,* critical reproductive time or location, migration), as well as effects on habitat, and the likely effectiveness of the mitigation. We also assess the number, intensity, and context of estimated takes by evaluating this information relative to population status. Consistent with the 1989 preamble for NMFS's implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into this analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, this introductory discussion of our analyses applies to all of the species listed in Table 9, given that many of the anticipated effects of this project on different marine mammal stocks are expected to be relatively similar in nature. Where there are meaningful differences between species or stocks in anticipated individual responses to activities, impact of expected take on the population due to differences in population status, or impacts on habitat, they are described independently in the analysis below. The analysis below applies to both the Year 1 and Year 2 proposed IHAs, except where noted otherwise.

Pile driving and removal activities associated with the project, as outlined previously, have the potential to disturb or displace marine mammals. Specifically, the specified activities may result in take, in the form of Level A harassment and Level B harassment from underwater sounds generated by pile driving and removal. Potential takes

could occur if marine mammals are present in zones ensonified above the thresholds for Level A or Level B harassment, identified above, while activities are underway.

The nature of the pile driving project precludes the likelihood of serious injury or mortality. The mitigation is expected to ensure that no Level A harassment occurs to any species except harbor seal, which may be taken by Level A harassment during Year 1 activities. The nature of the estimated takes anticipated to occur are similar among all species and similar in Year 1 and Year 2, other than the potential Level A harassment take of harbor seal in Year 1, described further below.

For all species and stocks, take will occur within a limited portion of Hood Canal, and for the Hood Canal stock of harbor seals, the project site is approximately 13.2 km (8.2 mi) away from the nearest major haulout at the mouth of the Dosewallips River. For all species other than harbor seal, take would be limited to Level B harassment only due to potential behavioral disturbance and TTS. Effects on individuals that are taken by Level B harassment, on the basis of reports in the literature as well as monitoring from other similar activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring) (*e.g.,* Thorson and Reyff 2006; HDR, Inc. 2012; Lerma 2014; ABR 2016). Level B harassment will be reduced to the level of least practicable adverse impact through use of mitigation measures described herein, and, if sound produced by project activities is sufficiently disturbing, animals are likely to simply avoid the area while the activity is occurring. While vibratory driving associated with the proposed project may produce sound at distances of many kilometers from the project site, the project site itself is located on a busy waterfront with high amounts of vessel traffic. Therefore, we expect that animals disturbed by project sound would simply avoid the area and use more-preferred habitats, particularly as pile driving is expected to occur for a maximum of five hours per day. Further, the instances of take proposed for authorization for killer whale West Coast Transient stock, harbor porpoise Washington Inland Waters stock, Steller sea lion Eastern U.S. stock, and California sea lion United States stock is small when compared to stock abundance.

In addition to the expected effects resulting from proposed Level B harassment, we anticipate that harbor seals may sustain some Level A harassment in the form of auditory injury in Year 1 only. However, animals that experience PTS would likely only receive slight PTS, *i.e.,* minor degradation of hearing capabilities within regions of hearing that align most completely with the frequency range of the energy produced by pile driving (*i.e.,* the low-frequency region below 2kHz), not severe hearing impairment or impairment in the reigns of greatest hearing sensitivity. If hearing impairment does occur, it is most likely that the affected animal would lose a few dBs in its hearing sensitivity, which in most cases, is not likely to meaningfully affect its ability to forage and communicate with conspecifics. As described above, we expect that marine mammals would be likely to move away from a sound source that represents an aversive stimulus, especially at levels that would be expected to result in PTS, given sufficient notice through use of soft start.

As noted above in the Description of Marine Mammals in the Area of Specified Activities, the Navy has identified a few observations of harbor seal births at Kitsap Bangor. However, Kitsap Bangor is not a significant rookery area; observation of these births are very rare, and only a few have been reported. The closest major haulouts to Kitsap Bangor that are regularly used by harbor seals are at the mouth of the Dosewallips River, located approximately 13.2 km (8.2 mi) away. Given the rarity of harbor seal births at Kitsap Bangor and the maximum of five hours of pile driving anticipated in a day, we do not expect harbor seals to give birth in the TPP project area while the project is underway.

The project is also not expected to have significant adverse effects on affected marine mammals' habitats. The project activities will not modify existing marine mammal habitat for a significant amount of time. The activities may cause some fish to leave the area of disturbance, thus temporarily impacting marine mammals' foraging opportunities in a limited portion of the foraging range; but, because of the short duration of the activities and the relatively small area of the habitat that may be affected, the impacts to marine mammal habitat are not expected to cause significant or long-term negative consequences.

In summary and as described above, the following factors primarily support our preliminary determination that the impacts resulting from this activity are not expected to adversely affect the species or stock through effects on annual rates of recruitment or survival:

- No mortality or serious injury is anticipated or authorized.
- For all species except harbor seal, no Level A harassment is anticipated or proposed for authorization.
- The Level A harassment exposures are anticipated to result only in slight PTS, within the lower frequencies associated with pile driving for harbor seals only;
- The intensity of anticipated takes by Level B harassment is relatively low for all stocks.
- Pile driving is only expected to occur for a maximum of five hours in a day.
- We do not expect significant or long-term negative effects to marine mammal habitat.

Year 1 IHA—Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the Navy's construction activities will have a negligible impact on all affected marine mammal species or stocks.

Year 2 IHA—Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the Navy's construction activities will have a negligible impact on all affected marine mammal species or stocks.

Small Numbers

As noted above, only small numbers of incidental take may be authorized under Sections 101(a)(5)(A) and (D) of the MMPA for specified activities other than military readiness activities. The MMPA does not define small numbers and so, in practice, where estimated numbers are available, NMFS compares the number of individuals taken to the most appropriate estimation of abundance of the relevant species or stock in our determination of whether an authorization is limited to small numbers of marine mammals. When the predicted number of individuals to be taken is fewer than one third of the species or stock abundance, the take is considered to be of small numbers. Additionally, other qualitative factors may be considered in the analysis, such as the temporal or spatial scale of the activities.

For the Washington Inland Waters, Hood Canal stock of harbor seal, no

valid abundance estimate is available. The most recent abundance estimate for harbor seals in Washington inland waters is from 1999, which estimated 1,088 harbor seals in the Washington Inland Waters, Hood Canal stock. It is generally believed that harbor seal populations have increased significantly since (*e.g.,* Mapes, 2013). The estimated instances of take of the Washington Inland Waters, Hood Canal stock of harbor seals in Year 1 (Table 9) appear high when compared to the latest stock abundance from 1999. However, when other qualitative factors are used to inform an assessment of the likely number of individual harbor seals taken, the resulting numbers are considered small in Year 1 and Year 2.

We anticipate that estimated takes of harbor seals are likely to occur only within some portion of the relevant population, rather than to animals from the stock as a whole. For example, takes anticipated to occur at Kitsap Bangor would be expected to accrue to the same individual seals that routinely occur on haulouts at these locations, rather than occurring to new seals on each construction day. In summary, harbor seals taken as a result of the specified activities are expected to comprise only a limited portion of individuals comprising the overall relevant stock abundance. Therefore, we find that small numbers of harbor seals will be taken relative to the population size of the Hood Canal stock of harbor seal in Year 1 and Year 2.

For all other species and stocks, our analysis shows that, in Year 1 and Year 2, take of all species or stocks is below one third of the estimated stock abundance. The number of animals authorized to be taken for the killer whale West Coast Transient stock, harbor porpoise Washington Inland Waters stock, Steller sea lion Eastern U.S. stock, and California sea lion United States stock, would be considered small relative to the relevant stock's abundances even if each estimated taking occurred to a new individual, which is an unlikely scenario.

Year 1 IHA—Based on the analysis contained herein of the activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS preliminarily finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks in Year 1 of the project.

Year 2 IHA—Based on the analysis contained herein of the activity (including the mitigation and monitoring measures) and the anticipated take of marine mammals, NMFS preliminarily finds that small numbers of marine mammals will be taken relative to the population size of the affected species or stocks in Year 2 of the project.

Unmitigable Adverse Impact Analysis and Determination

There are no relevant subsistence uses of the affected marine mammal stocks or species implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA: 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally whenever we propose to authorize take for endangered or threatened species.

No incidental take of ESA-listed species is proposed for authorization or expected to result from this activity. Therefore, NMFS has determined that formal consultation under section 7 of the ESA is not required for this action.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to Navy for conducting the Transit Protection Program Pier and Support Facilities Project at Naval Base Kitsap Bangor in Silverdale, Washington over two years, beginning July 2021 and July 2022, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated. Drafts of the proposed IHAs can be found at *https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act.*

Request for Public Comments

We request comment on our analyses, the proposed authorizations, and any other aspect of this notice of proposed IHAs for the proposed Transit Protection Program Pier and Support Facilities Project. We also request at this time comment on the potential Renewal of these proposed IHAs as described in the paragraph below. Please include with your comments any supporting data or literature citations to help inform decisions on the request for these IHAs or subsequent Renewal IHAs.

On a case-by-case basis, NMFS may issue a one-time, one-year Renewal IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical or nearly identical activities, as described in the Description of Proposed Activity section of this notice, is planned or (2) the activities as described in the Description of Proposed Activity section of this notice would not be completed by the time the IHA expires and a Renewal would allow for completion of the activities beyond that described in the *Dates and Duration* section of this notice, provided all of the following conditions are met:

- A request for renewal is received no later than 60 days prior to the needed Renewal IHA effective date (recognizing that the Renewal IHA expiration date cannot extend beyond one year from expiration of the initial IHA).
- The request for renewal must include the following:

(1) An explanation that the activities to be conducted under the requested Renewal IHA are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.,* reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take).

(2) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.

- Upon review of the request for Renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

Dated: August 5, 2020.

Donna S. Wieting,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2020–17409 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA333]

Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The Pacific Fishery Management Council's (Pacific Council) Groundfish Management Team (GMT) will hold an online meeting to discuss items on the Pacific Council's September 2020 meeting agenda. The meeting is open to the public.

DATES: The online meeting will be held Tuesday, August 25, 2020, from 1 p.m. to 3 p.m., Pacific Daylight Time, or until business for the day has been completed.

ADDRESSES: This meeting will be held online. Specific meeting information, including directions on how to join the meeting and system requirements will be provided in the meeting announcement on the Pacific Council's website (see *www.pcouncil.org*). You may send an email to Mr. Kris Kleinschmidt (*kris.kleinschmidt@noaa.gov*) or contact him at (503) 820–2412 for technical assistance.

Council address: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220–1384.

FOR FURTHER INFORMATION CONTACT: Todd Phillips, Staff Officer; telephone: (503) 820–2426; email: *todd.phillips@noaa.gov*.

SUPPLEMENTARY INFORMATION:

The primary purpose of the GMT online meeting is to prepare for the Pacific Council's September 2020 meeting. The GMT will discuss items related to groundfish management and administrative Pacific Council agenda items. A detailed agenda for the online meeting will be available on the Pacific Council's website prior to the meeting. The GMT may also address other assignments relating to groundfish management. No management actions will be decided by the GMT.

Although non-emergency issues not contained in the meeting agenda may be discussed, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically listed in this document and any issues arising after publication of this document that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the intent to take final action to address the emergency.

Special Accommodations

Requests for sign language interpretation or other auxiliary aids should be directed to Mr. Kris Kleinschmidt (*kris.kleinschmidt@noaa.gov*; (503) 820–2412) at least 10 days prior to the meeting date.

Dated: August 5, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17402 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA332]

Atlantic Highly Migratory Species; Atlantic Highly Migratory Species Southeast Data, Assessment, and Review Workshops Advisory Panel

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; nominations for shark stock assessment Advisory Panel.

SUMMARY: NMFS solicits nominations for the ''SEDAR Pool,'' also known as the Atlantic Highly Migratory Species (HMS) Southeast Data, Assessment, and Review (SEDAR) Workshops Advisory Panel. The SEDAR Pool is comprised of a group of individuals who may be selected to consider data and advise NMFS regarding the scientific information, including but not limited to data and models, used in stock assessments for oceanic sharks in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. Nominations are being sought for a 5-year appointment (2021–2026). Individuals with definable interests in the recreational and commercial fishing and related industries, environmental community, academia, and non-governmental organizations will be considered for membership on the SEDAR Pool.

DATES: Nominations must be received on or before September 9, 2020.

ADDRESSES: You may submit nominations and request the SEDAR Pool Statement of Organization, Practices, and Procedures electronically via email to *SEDAR.pool@noaa.gov*.

Additional information on SEDAR and the SEDAR guidelines can be found at *http://sedarweb.org/*. The terms of reference for the SEDAR Pool, along with a list of current members, can be found at *https://www.fisheries.noaa.gov/atlantic-highly-migratory-species/southeast-data-assessment-and-review-and-atlantic-highly*.

FOR FURTHER INFORMATION CONTACT: Karyl Brewster-Geisz, (301) 425–8503.

SUPPLEMENTARY INFORMATION:

Background

Section 302(g)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), 16 U.S.C. 1801 *et seq.,* states that each Council shall establish such advisory panels as are necessary or appropriate to assist it in carrying out its functions under the Magnuson-Stevens Act. For the purposes of this section, NMFS applies the above Council provision to Atlantic HMS management (see section 304(g)(1) of the Magnuson-Stevens Act, which provides that the Secretary will prepare fishery management plans (FMPs) for HMS and consult with Advisory Panels under section 302(g) for such FMPs). As such, NMFS has established the SEDAR Pool under this section. The SEDAR Pool currently consists of 30 individuals, each of whom may be selected to review data and advise NMFS regarding the scientific information, including but not limited to data and models, used in stock assessments for oceanic sharks in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea. While the SEDAR Pool was created specifically for Atlantic oceanic sharks, it may be expanded to include other HMS, as needed.

The primary purpose of the individuals in the SEDAR Pool is to review, at SEDAR workshops, the scientific information (including but not limited to data and models) used in stock assessments that are used to advise NMFS, as a delegate to the Secretary of Commerce (Secretary), about the conservation and management of Atlantic HMS, specifically but not limited to, Atlantic sharks. Individuals in the SEDAR Pool, if selected, may participate in the various data, assessment, and review workshops during the SEDAR process of any HMS stock assessment. In order to ensure that the peer review is unbiased, individuals who participated in a data and/or assessment workshop for a particular stock assessment will not be allowed to serve as reviewers for the same stock assessment. However, these individuals may be asked to attend the review

workshop to answer specific questions from the reviewers concerning the data and/or assessment workshops. Members of the SEDAR Pool may serve as members of other Advisory Panels concurrent with, or following, their service on the SEDAR Pool.

Procedures and Guidelines

A. Participants

The SEDAR Pool is comprised of individuals representing the commercial and recreational fishing communities for Atlantic sharks, the environmental community active in the conservation and management of Atlantic sharks, and the academic community that have relevant expertise either with sharks and/or stock assessment methodologies for marine fish species. In addition, individuals who may not necessarily work directly with sharks, but who are involved in fisheries with similar life history, biology, and fishery issues may be part of the SEDAR Pool. Members of the SEDAR Pool must have demonstrated experience in the fisheries, related industries, research, teaching, writing, conservation, or management of marine organisms. The distribution of representation among the interested parties is not defined or limited.

Additional members of the SEDAR Pool may also include representatives from each of the five Atlantic Regional Fishery Management Councils, each of the 18 Atlantic states, both the U.S. Virgin Islands and Puerto Rico, and each of the interstate commissions: The Atlantic States Marine Fisheries Commission and the Gulf States Marine Fisheries Commission.

If NMFS requires additional members to ensure a diverse pool of individuals for data or assessment workshops, NMFS may request individuals to become members of the SEDAR Pool outside of the annual nomination period.

SEDAR Pool members serve at the discretion of the Secretary. Not all members will attend each SEDAR workshop. Rather, NMFS will invite certain members to participate at specific stock assessment workshops dependent on their ability to participate, discuss, and recommend scientific decisions regarding the species being assessed.

NMFS is not obligated to fulfill any requests (*e.g.,* requests for an assessment of a certain species) that may be made by the SEDAR Pool or its individual members. Members of the SEDAR Pool who are invited to attend stock assessment workshops will not be compensated for their services but may be reimbursed for their travel-related expenses to attend such workshops.

B. Nomination Procedures for Appointments to the SEDAR Pool

Member tenure will be for 5 years. Nominations are sought for terms beginning early in 2021 and expiring in 2026. Nomination packages should include:

1. The name, address, phone number, and email of the applicant or nominee;
2. A description of the applicant's or nominee's interest in Atlantic shark stock assessments or the Atlantic shark fishery;
3. A statement of the applicant's or nominee's background and/or qualifications; and
4. A written commitment that the applicant or nominee shall participate actively and in good faith in the tasks of the SEDAR Pool, as requested.

C. Meeting Schedule

Individual members of the SEDAR Pool meet to participate in stock assessments at the discretion of the Office of Sustainable Fisheries, NMFS. Stock assessment timing, frequency, and relevant species will vary depending on the needs determined by NMFS and SEDAR staff. In 2021 and continuing through 2022, NMFS intends to conduct a research track assessment for the hammerhead shark species in the hammerhead shark management group. During an assessment year, meetings and meeting logistics will be determined according to the SEDAR Guidelines. All meetings are open for observation by the public.

Dated: August 5, 2020.

Jennifer M. Wallace,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17394 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA320]

Fisheries of the South Atlantic; South Atlantic Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a Dolphinfish Tagging Research presentation.

SUMMARY: The South Atlantic Fishery Management Council (Council) will host a presentation on dolphinfish tagging research via webinar on August 26, 2020.

DATES: The webinar presentation will be held on Wednesday, August 26, 2020, from 1 p.m. until 2:30 p.m.

ADDRESSES:

Meeting address: The presentation will be provided via webinar. The webinar is open to members of the public. Information, including a link to webinar registration will be posted on the Council's website at: *https://safmc.net/safmc-meetings/other-meetings/* as it becomes available.

Council address: South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, N. Charleston, SC 29405.

FOR FURTHER INFORMATION CONTACT: Kim Iverson, Public Information Officer, SAFMC; phone: (843) 302–8439 or toll free: (866) SAFMC–10; fax: (843) 769–4520; email: *kim.iverson@safmc.net.*

SUPPLEMENTARY INFORMATION: The Council will host a presentation from the Dolphinfish Research Program on recent tagging efforts for dolphin and wahoo and ongoing research. A question and answer session will follow the presentation. Members of the public will have the opportunity to participate and provide comments relative to the presentation. The presentation is for informational purposes only and no management actions will be taken.

Special Accommodations

The meeting is physically accessible to people with disabilities. Requests for auxiliary aids should be directed to the Council office (see **ADDRESSES**) 3 days prior to the meeting.

Note: The times and sequence specified in this agenda are subject to change.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 5, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17400 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XA323]

Fisheries of the South Atlantic; South Atlantic Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting.

SUMMARY: The South Atlantic Fishery Management Council (Council) will convene a meeting of the South Atlantic Selectivity Workgroup via webinar to address gear selectivity for fishery stock assessments for species managed by the Council.

DATES: The South Atlantic Selectivity Workgroup meeting will be held via webinar on Tuesday, August 25, 2020, from 1 p.m. until 4:30 p.m.

ADDRESSES:

Meeting address: The meeting will be held via webinar. The webinar is open to members of the public. Information, including a link to webinar registration and meeting materials will be posted on the Council's website at: *https://safmc.net/safmc-meetings/other-meetings/* as it becomes available.

Council address: South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, N. Charleston, SC 29405.

FOR FURTHER INFORMATION CONTACT: Chip Collier, Deputy Director for Science, SAFMC; phone: (843) 302–8444 or toll free: (866) SAFMC–10; fax: (843)769–4520; email: *chip.collier@safmc.net*.

SUPPLEMENTARY INFORMATION: The South Atlantic Selectivity Workgroup consists of scientists with expertise in selectivity or gears used in fisheries in the South Atlantic region including members of the Council's Scientific and Statistical Committee chosen to participate. The Workgroup will provide recommendations on selectivity for species managed by the Council for consideration in upcoming stock assessments.

Agenda items include:

1. Terms of Reference for South Atlantic Selectivity Workgroup
2. Review of Gear and Assessment Selectivity
3. An overview of a Selectivity Study conducted by the Florida Fish and Wildlife Research Institute
4. A presentation from NOAA Fisheries on Stereo-video Experiments
5. A review of submitted working papers to aid in the evaluation of selectivity
6. Discuss and provide recommendations related to selectivity issues for Black Sea Bass, Red Snapper and Vermilion Snapper.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for auxiliary aids should be directed to the Council office (see **ADDRESSES**) 5 days prior to the meeting.

Note: The times and sequence specified in this agenda are subject to change.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: August 5, 2020.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2020–17401 Filed 8–7–20; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2020–SCC–0126]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Application Forms and Instructions for the Centers for International Business Education (84.220a) Program

AGENCY: Office of Postsecondary Education (OPE), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, ED is proposing an extension of an existing information collection.

DATES: Interested persons are invited to submit comments on or before September 9, 2020.

ADDRESSES: Written comments and recommendations for proposed information collection requests should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection request by selecting ''Department of Education'' under ''Currently Under Review,'' then check ''Only Show ICR for Public Comment'' checkbox.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Timothy Duvall, 202–453–7521.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Application Forms and Instructions for the Centers for International Business Education (84.220a) Program.

OMB Control Number: 1840–0616.

Type of Review: An extension of an existing information collection.

Respondents/Affected Public: Private Sector.

Total Estimated Number of Annual Responses: 27.

Total Estimated Number of Annual Burden Hours: 2,700.

Abstract: This information collection (OMB 1840–0616) includes application instructions and forms for the Centers for International Business Education (CIBE) Program (CFDA Number 84.220A) authorized under Title VI of the Higher Education Act of 1965, as amended (20 U.S.C. Sections 611 and 612). The type of collection is an extension of a previously-approved information collection (application).

Centers for International Business Education (CIBEs) offer consulting services on international business and marketing to businesses in their areas, develop business language curriculum, and teach international business topics to undergraduate and graduate students. They also partner with businesses and professional associations to offer internships and other real-world experience to prepare career-ready international business students. CIBEs serve to strengthen the American economy in our increasingly interconnected world by enabling U.S. citizens and companies to compete in the international business arena.

The CIBE program provides grants for up to 48 months to pay the Federal share of the cost of planning, establishing, and operating Centers for International Business Education. Eligible applicants are U.S. institutions

of higher education or combinations of such institutions.

This program responds to the ongoing national need for individuals with expertise and competence in world languages, international business, and U.S. global economic competitiveness; advance national security by developing a pipeline of highly proficient linguists and experts in critical world regions; and contribute to developing a globally competent workforce able to engage with a multilingual/multicultural clientele at home and abroad. Approval of this collection is necessary in order to conduct fiscal year (FY) 2022 program competitions.

Dated: August 4, 2020.

Kate Mullan,

PRA Coordinator, Strategic Collections and Clearance Governance and Strategy Division, Office of Chief Data Officer, Office of Planning, Evaluation and Policy Development.

[FR Doc. 2020–17337 Filed 8–7–20; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Annual Notice of Interest Rates for Fixed-Rate Federal Student Loans Made Under the William D. Ford Federal Direct Loan Program

AGENCY: Federal Student Aid, Department of Education.

ACTION: Notice.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.268.

SUMMARY: The Chief Operating Officer for Federal Student Aid announces the interest rates for Federal Direct Stafford/Ford Loans (Direct Subsidized Loans), Federal Direct Unsubsidized Stafford/Ford Loans (Direct Unsubsidized Loans), and Federal Direct PLUS Loans (Direct PLUS Loans) made under the William D. Ford Federal Direct Loan (Direct Loan) Program with first disbursement dates on or after July 1, 2020, and before July 1, 2021.

FOR FURTHER INFORMATION CONTACT: Travis Sturlaugson, U.S. Department of Education, 830 First Street NE, 11th Floor, Washington, DC 20202. Telephone: (202) 377–4174. Email: *travis.sturlaugson@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION: Direct Subsidized Loans, Direct Unsubsidized Loans, Direct PLUS Loans, and Direct Consolidation Loans (collectively referred to as ''Direct Loans'') may have either fixed or variable interest rates, depending on when the loan was first disbursed or, in the case of a Direct Consolidation Loan, when the application for the loan was received. Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed on or after July 1, 2006, and Direct Consolidation Loans for which the application was received on or after February 1, 1999, have fixed interest rates that apply for the life of the loan. Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed before July 1, 2006, and Direct Consolidation Loans for which the application was received before February 1, 1999, have variable interest rates that are determined annually and are in effect during the period from July 1 of one year through June 30 of the following year.

This notice announces the fixed interest rates for Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans with first disbursement dates on or after July 1, 2020, and before July 1, 2021, and provides interest rate information for other fixed-rate Direct Loans. Interest rate information for variable-rate Direct Loans is announced in a separate **Federal Register** notice.

Fixed-Rate Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans First Disbursed on or After July 1, 2013

Section 455(b) of the Higher Education Act of 1965, as amended (HEA) (20 U.S.C. 1087e(b)), includes formulas for determining the interest rates for all Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed on or after July 1, 2013. The interest rate for these loans is a fixed rate that is determined annually for all loans first disbursed during any 12-month period beginning on July 1 and ending on June 30. The rate is equal to the high yield of the 10-year Treasury notes auctioned at the final auction held before June 1 of that 12-month period, plus a statutory add-on percentage that varies depending on the loan type and, for Direct Unsubsidized Loans, whether the loan was made to an undergraduate or graduate student. The calculated interest rate may not exceed a maximum rate specified in the HEA. If the interest rate formula results in a rate that exceeds the statutory maximum rate, the rate is the statutory maximum rate. Loans first disbursed during different 12-month periods that begin on July 1 and end on June 30 may have different interest rates, but the rate determined for any loan is a fixed interest rate for the life of the loan.

On May 12, 2020, the United States Treasury Department held a 10-year Treasury note auction that resulted in a high yield of 0.700 percent.

Chart 1 shows the fixed interest rates for Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed on or after July 1, 2020, and before July 1, 2021.

CHART 1—DIRECT SUBSIDIZED LOANS, DIRECT UNSUBSIDIZED LOANS, AND DIRECT PLUS LOANS FIRST DISBURSED ON OR AFTER 07/01/2020 AND BEFORE 07/01/2021

Loan type	Borrower type	10-year Treasury note high yield 05/12/2020 (%)	Add-on (%)	Maximum rate (%)	Fixed interest rate (%)
Direct Subsidized Loans	Undergraduate students	0.700	2.05	8.25	2.75
Direct Unsubsidized Loans					
Direct Unsubsidized Loans [1]	Graduate and professional students	0.700	3.60	9.50	4.30
Direct PLUS Loans	Parents of dependent undergraduate students.	0.700	4.60	10.50	5.30
	Graduate and professional students				

[1] Graduate and professional students are not eligible to receive Direct Subsidized Loans.

For reference, Chart 2 compares the fixed interest rates for Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed during the period July 1, 2020, through June 30, 2021, with the fixed interest rates for loans first disbursed during each previous 12-month period from July 1, 2013, through June 30, 2019.

CHART 2—DIRECT SUBSIDIZED LOANS, DIRECT UNSUBSIDIZED LOANS, AND DIRECT PLUS LOANS FIRST DISBURSED ON OR AFTER 07/01/2013 AND BEFORE 07/01/2021

First disbursed		Fixed interest rates (%)			**Federal Register** Notice
On/after	Before	Direct Subsidized Loans; Direct Unsubsidized Loans (undergraduate students)	Direct Unsubsidized Loans (graduate or professional students)	Direct PLUS Loans	
07/01/2020	07/01/2021	2.75	4.30	5.30	N/A.
07/01/2019	07/01/2020	4.53	6.08	7.08	85 FR 2417 (January 15, 2020).
07/01/2018	07/01/2019	5.05	6.60	7.60	83 FR 53864 (October 25, 2018).
07/01/2017	07/01/2018	4.45	6.00	7.00	82 FR 29062 (June 27, 2017).
07/01/2016	07/01/2017	3.76	5.31	6.31	81 FR 38159 (June 13, 2016).
07/01/2015	07/01/2016	4.29	5.84	6.84	80 FR 42488 (July 17, 2015).
07/01/2014	07/01/2015	4.66	6.21	7.21	79 FR 37301 (July 1, 2014).
07/01/2013	07/01/2014	3.86	5.41	6.41	78 FR 59011 (September 25, 2013).

Fixed-Rate Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans First Disbursed on or After July 1, 2006, and Before July 1, 2013

Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed on or after July 1, 2006, and before July 1, 2013, have fixed interest rates that are specified in section 455(b) of the HEA (20 U.S.C. 1087e(b)). Chart 3 shows the interest rates for these loans.

CHART 3—DIRECT SUBSIDIZED LOANS, DIRECT UNSUBSIDIZED LOANS, AND DIRECT PLUS LOANS FIRST DISBURSED ON OR AFTER 07/01/2006 AND BEFORE 07/01/2013

Loan type	Borrower type	First disbursed on/after	First disbursed before	Interest rate (%)
Subsidized	Undergraduate students	07/01/2011	07/01/2013	3.40
Subsidized	Undergraduate students	07/01/2010	07/01/2011	4.50
Subsidized	Undergraduate students	07/01/2009	07/01/2010	5.60
Subsidized	Undergraduate students	07/01/2008	07/01/2009	6.00
Subsidized	Undergraduate students	07/01/2006	07/01/2008	6.80
Subsidized	Graduate or professional students	07/01/2006	[2] 07/01/2012	6.80
Unsubsidized	Undergraduate and graduate or professional students	07/01/2006	07/01/2013	6.80
PLUS	Graduate or professional students and parents of dependent undergraduate students.	07/01/2006	07/01/2013	7.90

[2] Effective for loan periods beginning on or after July 1, 2012, graduate and professional students are no longer eligible to receive Direct Subsidized Loans.

Fixed-Rate Direct Consolidation Loans

Section 455(b) of the HEA specifies that all Direct Consolidation Loans for which the application was received on or after February 1, 1999, have a fixed interest rate that is equal to the weighted average of the interest rates on the loans consolidated, rounded to the nearest higher one-eighth of one percent. For Direct Consolidation Loans for which the application was received on or after February 1, 1999, and before July 1, 2013, the interest rate may not exceed 8.25 percent. However, under section 455(b) of the HEA the 8.25 percent interest rate cap does not apply to Direct Consolidation Loans made based on applications received on or after July 1, 2013. Chart 4 shows the interest rates for fixed-rate Direct Consolidation Loans.

CHART 4—DIRECT CONSOLIDATION LOANS MADE BASED ON APPLICATIONS RECEIVED ON OR AFTER 02/01/1999

Application received	Interest rate (%)	Maximum interest rate (%)
On/after 07/01/2013	Weighted average of the interest rates on the loans consolidated, rounded to the nearest higher one-eighth of one percent..	None

CHART 4—DIRECT CONSOLIDATION LOANS MADE BASED ON APPLICATIONS RECEIVED ON OR AFTER 02/01/1999—Continued

Application received	Interest rate (%)	Maximum interest rate (%)
On/after 02/01/1999 and before 07/01/2013.	(same as above)	8.25%

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Program Authority: 20 U.S.C. 1087, *et seq.*

Mark A. Brown,

Chief Operating Officer, Federal Student Aid.

[FR Doc. 2020–17395 Filed 8–7–20; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Annual Notice of Interest Rates for Variable-Rate Federal Student Loans Made Under the William D. Ford Federal Direct Loan Program

AGENCY: Federal Student Aid, Department of Education.

ACTION: Notice.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.268.

SUMMARY: The Chief Operating Officer for Federal Student Aid announces the interest rates for Federal Direct Stafford/Ford Loans (Direct Subsidized Loans), Federal Direct Unsubsidized Stafford/Ford Loans (Direct Unsubsidized Loans), and Federal Direct PLUS Loans (Direct PLUS Loan) with first disbursement dates before July 1, 2006, and for Federal Direct Consolidation Loans (Direct Consolidation Loans) for which the application was received before February 1, 1999. The rates announced in this notice are in effect for the period July 1, 2020, through June 30, 2021.

FOR FURTHER INFORMATION CONTACT: Travis Sturlaugson, U.S. Department of Education, 830 First Street NE, 11th Floor, Washington, DC 20202. Telephone: (202) 377–4174. Email: *travis.sturlaugson@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION: Direct Subsidized Loans, Direct Unsubsidized Loans, Direct PLUS Loans, and Direct Consolidation Loans (collectively referred to as ''Direct Loans'') may have either fixed or variable interest rates, depending on when the loan was first disbursed or, in the case of a Direct Consolidation Loan, when the application for the loan was received. Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed before July 1, 2006, and Direct Consolidation Loans for which the application was received before February 1, 1999, have variable interest rates. For these loans, a new rate is determined annually and is in effect during the period from July 1 of one year through June 30 of the following year.

Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans first disbursed on or after July 1, 2006, and Direct Consolidation Loans for which the application was received on or after February 1, 1999, have fixed interest rates that apply for the life of the loan.

This notice announces the interest rates for variable-rate Direct Loans that will apply during the period from July 1, 2020, through June 30, 2021. Interest rate information for fixed-rate Direct Loans is announced in a separate notice published in the **Federal Register**.

Interest rates for variable-rate Direct Loans are determined in accordance with formulas specified in section 455(b) of the Higher Education Act of 1965, as amended (HEA) (20 U.S.C. 1087e(b)). The formulas vary depending on loan type and when the loan was first disbursed or, for certain Direct Consolidation Loans, when the application for the loan was received. The HEA specifies a maximum interest rate for these loan types. If the interest rate formula results in a rate that exceeds the statutory maximum rate, the rate is the statutory maximum rate.

Variable-Rate Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans

For Direct Subsidized Loans and Direct Unsubsidized Loans with first disbursement dates before July 1, 2006, and for Direct PLUS Loans with first disbursement dates on or after July 1, 1998, and before July 1, 2006, the interest rate is equal to the lesser of—

(1) The bond equivalent rate of 91-day Treasury bills auctioned at the final auction held before the June 1 immediately preceding the 12-month period to which the interest rate applies, plus a statutory add-on percentage; or

(2) 8.25 percent (for Direct Subsidized Loans and Direct Unsubsidized Loans) or 9.00 percent (for Direct PLUS Loans).

For Direct Subsidized Loans and Direct Unsubsidized Loans with first disbursement dates on or after July 1, 1995, and before July 1, 2006, the statutory add-on percentage varies depending on whether the loan is in an in-school, grace, or deferment status, or in any other status. For all other loans, the statutory add-on percentage is the same during any status.

The bond equivalent rate of 91-day Treasury bills auctioned on May 26, 2020, is 0.132 percent, rounded to 0.13 percent.

For Direct PLUS Loans with first disbursement dates before July 1, 1998, the interest rate is equal to the lesser of—

(1) The weekly average 1-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System, for the last calendar week ending on or before the June 26 preceding the 12-month period to which the interest rate applies, plus a statutory add-on percentage; or

(2) 9.00 percent.

The weekly average of the one-year constant maturity Treasury yield, as published by the Board of Governors of

the Federal Reserve System, for the last calendar week ending on or before June 26, 2020, is 0.17 percent.

Variable-Rate Direct Consolidation Loans

A Direct Consolidation Loan may have up to three components, depending on the types of loans that were repaid by the consolidation loan and when the application for the consolidation loan was received. The three components are called Direct Subsidized Consolidation Loans, Direct Unsubsidized Consolidation Loans, and (only for Direct Consolidation Loans made based on applications received before July 1, 2006) Direct PLUS Consolidation Loans. In most cases the interest rates for variable-rate Direct Subsidized Consolidation Loans, Direct Unsubsidized Consolidation Loans, and Direct PLUS Consolidation Loans are determined in accordance with the same formulas that apply to Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans, respectively.

Interest Rate Charts

Charts 1 and 2 show the interest rate formulas used to determine the interest rates for all variable-rate Direct Loans and the rates that are in effect during the 12-month period from July 1, 2020, through June 30, 2021.

Chart 1 shows the interest rates for loans with rates based on the 91-day Treasury bill rate. Chart 2 shows the interest rates for loans with rates based on the weekly average of the one-year constant maturity Treasury yield.

CHART 1—DIRECT SUBSIDIZED LOANS, DIRECT UNSUBSIDIZED LOANS, DIRECT SUBSIDIZED CONSOLIDATION LOANS, DIRECT UNSUBSIDIZED CONSOLIDATION LOANS, DIRECT PLUS LOANS, AND DIRECT PLUS CONSOLIDATION LOANS

[Interest rates based on 91-day Treasury bill]

Loan type	Cohort	91-day T-bill rate 05/26/20 (%)	Add-on (%)		Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)	
Subsidized, Unsubsidized.	First disbursed on/after 07/01/98 and before 07/01/06.	0.13	1.70 (in-school, grace, deferment).	2.30 (any other status).	8.25	1.83 (in-school, grace, deferment).	2.43 (any other status)
Subsidized Consolidation, Unsubsidized Consolidation.	First disbursed on/after 07/01/98 and before 10/01/98; or Application received before 10/01/98 and first disbursed on/after 10/01/98.	.....	.....	.....	.....	.....	
PLUS	First disbursed on/after 07/01/98 and before 07/01/06.	0.13	3.10		9.00	3.23	
PLUS Consolidation.	First disbursed on/after 07/01/1998 and before 10/01/1998; or Application received before 10/01/98 and first disbursed on/after 10/01/98.	.....	.....	.....	.....	.....	
Subsidized, Unsubsidized, Subsidized Consolidation, Unsubsidized Consolidation.	First disbursed on/after 07/01/95 and before 07/01/98.	0.13	2.50 (in-school, grace, deferment).	3.10 (any other status).	8.25	2.63 (in-school, grace, deferment).	3.23 (any other status)
Subsidized, Unsubsidized, Subsidized Consolidation, Unsubsidized Consolidation.	First disbursed before 07/01/95.	0.13	.10		8.25	3.23	
Subsidized Consolidation, Unsubsidized Consolidation, PLUS Consolidation.	Application received on/after 10/01/98 and before 02/01/99.	0.13	2.30		8.25	2.43	

CHART 2—DIRECT PLUS LOANS AND DIRECT PLUS CONSOLIDATION LOANS

[Interest rates based on weekly average of one-year constant maturity treasury yield]

Loan type	Cohort	Weekly average of 1-year constant maturity Treasury yield for last calendar week ending on or before 06/26/20 (%)	Add-on (%)	Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)
PLUS, PLUS Consolidation	First disbursed before 07/01/98	0.17	3.10	9.00	3.27

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Program Authority: 20 U.S.C. 1087 *et seq.*

Mark A. Brown,

Chief Operating Officer, Federal Student Aid.

[FR Doc. 2020–17396 Filed 8–7–20; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Annual Notice of Interest Rates for Variable-Rate Federal Student Loans Made Under the Federal Family Education Loan Program Prior to July 1, 2010

AGENCY: Federal Student Aid, Department of Education.

ACTION: Notice.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.032.

SUMMARY: The Chief Operating Officer for Federal Student Aid announces the interest rates for loans made under the Federal Family Education Loan (FFEL) Program that have variable interest rates. The rates announced in this notice are in effect for the period July 1, 2020, through June 30, 2021.

FOR FURTHER INFORMATION CONTACT: Travis Sturlaugson, U.S. Department of Education, 830 First Street NE, 11th Floor, Washington, DC 20202. Telephone: (202) 377–4174. Email: *travis.sturlaugson@ed.gov*.

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION: Section 427A of the Higher Education Act of 1965, as amended (HEA) (20 U.S.C. 1077a), provides formulas for determining the interest rates charged to borrowers on loans made under the FFEL Program, including Federal Subsidized and Unsubsidized Stafford Loans (Stafford Loans), Federal PLUS Loans (PLUS Loans), Federal Consolidation Loans (Consolidation Loans), and Federal Supplemental Loans for Students (SLS Loans). No new loans have been made under the FFEL Program since June 30, 2010.

The FFEL Program includes loans with variable interest rates that change each year and loans with fixed interest rates that remain the same for the life of the loan. For loans with a variable interest rate, the specific interest rate formula that applies to a particular loan depends on the date of the first disbursement of the loan or, in the case of a Consolidation Loan, the date the application for the loan was received. If a loan has a variable interest rate, a new rate is determined annually and is in effect during the period from July 1 of one year through June 30 of the following year.

This notice announces the interest rates for variable-rate FFEL Program loans that will be in effect during the period from July 1, 2020, through June 30, 2021. Interest rates for fixed-rate FFEL Program loans may be found in a **Federal Register** notice published on September 15, 2015 (80 FR 55342).

For the majority of variable-rate FFEL Program loans, the annual interest rate is equal to the lesser of—

(1) The bond equivalent rate of the 91-day Treasury bills auctioned at the final auction held before June 1 of each year, plus a statutory add-on percentage; or

(2) A statutorily established maximum interest rate.

The bond equivalent rate of the 91-day Treasury bills auctioned on May 26, 2020, is 0.132 percent, rounded to 0.13 percent.

For PLUS Loans first disbursed before July 1, 1998, and for all SLS Loans, the annual interest rate is equal to the lesser of—

(1) The weekly average of the one-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System, for the last calendar week ending on or before June 26 of each year, plus a statutory add-on percentage; or

(2) A statutorily established maximum interest rate.

The weekly average of the one-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System, for the last calendar week ending on or before June 26, 2020, is 0.17 percent.

For Consolidation Loans that have a variable interest rate, the annual interest rate for the portion of a Consolidation Loan that repaid loans other than loans made under the Health Education Assistance Loans (HEAL) Program is equal to—

(1) The bond equivalent rate of the 91-day Treasury bill auctioned at the final auction held before June 1 of each year, plus a statutory add-on percentage; or

(2) A statutorily established maximum interest rate.

If a Consolidation Loan (whether a variable-rate loan or a fixed-rate loan) repaid loans made under the HEAL Program, the interest rate on the portion of the Consolidation Loan that repaid

HEAL loans is a variable rate that is equal to the average of the bond equivalent rates of the 91-day Treasury bills auctioned for the quarter ending June 30, plus a statutory add-on percentage. For the portion of a Consolidation Loan that repaid HEAL loans, there is no maximum interest rate.

The average of the bond equivalent rates of the 91-day Treasury bills auctioned for the quarter ending on June 30, 2020, is 0.15 percent.

The statutory add-on percentages and maximum interest rates vary depending on loan type and when the loan was first disbursed. In addition, the add-on percentage for certain Stafford Loans is different depending on whether the loan is in an in-school, grace, or deferment status, or in any other status. If the interest rate calculated in accordance with the applicable formula exceeds the statutory maximum interest rate, the statutory maximum rate applies.

Charts 1 through 4 show the interest rate formulas that are used to determine the interest rates for all variable-rate FFEL Program loans and the interest rates that are in effect during the 12-month period from July 1, 2020, through June 30, 2021. Unless otherwise indicated, the cohorts shown in each chart include all borrowers, regardless of prior borrowing.

Chart 1 shows the interest rates for loans with rates based on the 91-day Treasury bill, with the exception of ''converted'' variable-rate Federal Stafford Loans and certain Federal Consolidation Loans.

Chart 2 shows the interest rates for loans with rates based on the weekly average of the one-year constant maturity Treasury yield.

Chart 3 shows the interest rates for ''converted'' variable-rate Federal Stafford Loans. These are loans that originally had varying fixed interest rates.

Finally, Chart 4 shows the interest rates for variable-rate Federal Consolidation Loans, and for the portion of any Federal Consolidation Loan that repaid loans made under the HEAL Program.

CHART 1—SUBSIDIZED FEDERAL STAFFORD LOANS, UNSUBSIDIZED FEDERAL STAFFORD LOANS, AND FEDERAL PLUS LOANS

[Interest rate based on 91-day treasury bill]

Loan type	Cohort	91-day T-bill rate 05/26/20 (%)	Add-on (%)		Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)	
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on/after 07/01/98 and before 07/01/06.	0.13	1.70 (in-school, grace, deferment).	2.30 (any other status).	8.25	1.83 (in-school, grace, deferment).	2.43 (any other status).
PLUS	First disbursed on/after 07/01/98 and before 07/01/06.	0.13	3.10		9.00	3.23.	
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on/after 07/01/95 and before 07/01/98.	0.13	2.50 (in-school, grace, deferment).	3.10 (any other status).	8.25	2.63 (in-school, grace, deferment).	3.23 (any other status).
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on/after 07/01/94 and before 07/01/95, for a period of enrollment that included or began on or after 07/01/94.	0.13	3.10		8.25	3.23.	
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on/after 10/01/92 and before 07/01/94; and First disbursed on/after 07/01/94, for a period of enrollment ending before 07/01/94 (new borrowers).	0.13	3.10		9.00	3.23.	

CHART 2—FEDERAL PLUS LOANS AND SLS LOANS

[Interest rate based on weekly average of one-year constant maturity treasury yield]

Loan type	Cohort	Weekly average of 1-year constant maturity Treasury yield for last calendar week ending on or before 06/26/20 (%)	Add-on (%)	Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)
PLUS	First disbursed on/after 07/01/94 and before 07/01/98.	0.17	3.10	9.00	3.27
PLUS	First disbursed on/after 10/01/92 and before 07/01/94.	0.17	3.10	10.00	3.27
SLS	First disbursed on/after 10/01/92, for a period of enrollment beginning before 07/01/94.	0.17	3.10	11.00	3.27
PLUS SLS	First disbursed before 10/01/92	0.17	3.25	12.00	3.42

CHART 3—"CONVERTED" VARIABLE-RATE SUBSIDIZED AND UNSUBSIDIZED FEDERAL STAFFORD LOANS

[Interest rate based on 91-day treasury bill]

Loan type	Cohort	Original fixed interest rate (later converted to variable rate) (%)	91-day T-bill rate 05/26/20 (%)	Add-on (%)	Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/23/92 and before 07/01/94 (prior borrowers).	8.00, increasing to 10.00.	0.13	3.10	10.00	3.23
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/23/92 and before 07/01/94 (prior borrowers).	9.00	0.13	3.10	9.00	3.23
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/23/92 and before 07/01/94 (prior borrowers).	8.00	0.13	3.10	8.00	3.23
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/23/92 and before 07/01/94 (prior borrowers).	7.00	0.13	3.10	7.00	3.23
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/23/92 and before 10/01/92 (new borrowers).	8.00, increasing to 10.00.	0.13	3.25	10.00	3.38
Subsidized Stafford. Unsubsidized Stafford.	First disbursed on or after 07/01/88 and before 07/23/92.	8.00, increasing to 10.00.	0.13	3.25	10.00	3.38

CHART 4—FEDERAL CONSOLIDATION LOANS

Consolidation loan component	Cohort	91-day T-bill rate 05/26/20 (%)	Average of the bond equivalent rates of the 91-day T-bills auctioned for the quarter ending 06/30/20 (%)	Add-on (%)	Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)
Portion of loan that repaid loans other than HEAL loans.	Application received on/after 11/13/97 and before 10/01/98.	0.13	N/A	3.10	8.25	3.23

CHART 4—FEDERAL CONSOLIDATION LOANS—Continued

Consolidation loan component	Cohort	91-day T-bill rate 05/26/20 (%)	Average of the bond equivalent rates of the 91-day T-bills auctioned for the quarter ending 06/30/20 (%)	Add-on (%)	Maximum rate (%)	Interest rate 07/01/20 through 06/30/21 (%)
Portion of the loan that repaid HEAL loans.	Application received on/after 11/13/97.	N/A	0.15	3.00	None	3.15

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Program Authority: 20 U.S.C. 1071 *et seq.*

Mark A. Brown,

Chief Operating Officer, Federal Student Aid.

[FR Doc. 2020–17397 Filed 8–7–20; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Finding of No Significant Impact for the Commercial Disposal of Defense Waste Processing Facility Recycle Wastewater From the Savannah River Site

AGENCY: Office of Environmental Management, Department of Energy.

ACTION: Finding of No Significant Impact.

SUMMARY: The Department of Energy (DOE) has completed the *Final Environmental Assessment for the Commercial Disposal of Defense Waste Processing Facility Recycle Wastewater from the Savannah River Site* (Final EA). The Proposed Action in the Final EA is the disposal of up to 10,000 gallons of stabilized (grouted) Defense Waste Processing Facility (DWPF) recycle wastewater from the Savannah River Site (SRS) at a commercial low-level radioactive waste (LLW) disposal facility located outside of South Carolina and licensed by either the Nuclear Regulatory Commission (NRC) or an Agreement State. Based on the information and analysis in the Final EA, DOE intends to ship up to 8 gallons of the DWPF recycle wastewater to the Waste Control Specialists, LLC (WCS) Federal Waste Facility (FWF), a licensed commercial disposal facility located in Andrews, Texas, for stabilization and disposal.

ADDRESSES: This Finding of No Significant Impact and the Final EA are available on the DOE National Environmental Policy Act (NEPA) website at: *https://www.energy.gov/nepa/doeea-2115-commercial-disposal-defense-waste-processing-facility-recycle-wastewater-savannah.*

FOR FURTHER INFORMATION CONTACT: James Joyce and/or Theresa Kliczewski, U.S. Department of Energy, Office of Environmental Management, Office of Waste and Materials Management (EM–4.2), 1000 Independence Avenue SW, Washington, DC 20585. Emails: *James.Joyce@em.doe.gov* and *Theresa.Kliczewski@em.doe.gov.* Phone number: (202)586–5000.

SUPPLEMENTARY INFORMATION:

Background

DOE prepared the Final EA in accordance with Council on Environmental Quality (CEQ) regulations and DOE NEPA implementing procedures at 40 CFR parts 1500 through 1508 and 10 CFR part 1021, respectively. In the Final EA, the proposed action is the disposal of up to 10,000 gallons of stabilized (grouted) DWPF recycle wastewater from the SRS H-Area Tank Farm at a commercial LLW disposal facility located outside of South Carolina and licensed by either the NRC or an Agreement State under 10 CFR part 61. Treatment and disposal alternatives for this waste are discussed under the ''Proposed Action and Alternatives'' section. Any proposal to dispose of more than 10,000 gallons of DWPF recycle wastewater would be evaluated in a separate NEPA review.

The proposed action would be implemented starting within 12 months [1] of this Finding of No Significant Impact and would inform planning activities for the three years between the completion of the Salt Waste Processing Facility (SWPF) mission (estimated 2031) and DWPF mission completion (estimated 2034). During that three-year period, DOE will not have the option of returning DWPF recycle wastewater to the tank farm (which is how SRS presently addresses DWPF recycle wastewater) and SWPF for processing because SWPF will have completed its mission of treating salt waste from the tank farms and will undergo closure. The proposed action enables DOE to develop an alternative capability for stabilization and disposal of DWPF recycle through the use of a licensed commercial facility.

SRS generated large quantities of liquid radioactive waste as a result of its nuclear materials production mission. This liquid radioactive waste has historically been managed as high-level radioactive waste (HLW). The waste was placed into underground storage tanks at SRS and consists primarily of three physical forms: Sludge, saltcake, and liquid supernatant. The sludge portion in the underground tanks is being transferred on-site to the DWPF for vitrification in borosilicate glass to immobilize the radioactive constituents. The resulting vitrified waste form is poured as molten glass into production canisters where it cools into a solid

[1] This small quantity (up to 8 gallons) would enable DOE to initiate the transportation, stabilization, and disposal within the next 12 months.

glass-waste and is securely stored at SRS until DOE establishes a final disposition path. DWPF operations generate recycle wastewater. The DWPF recycle wastewater is a combination of several dilute liquid waste streams consisting primarily of condensates from the vitrification processes. Other components of the DWPF recycle wastewater include process samples, sample line flushes, sump flushes, and cleaning solutions from the decontamination and filter dissolution processes. Currently, the DWPF recycle wastewater is returned to the tank farm for volume reduction by evaporation or is beneficially reused in salt dissolution or sludge washing. The DWPF recycle wastewater is currently managed as HLW because it has radionuclides from reprocessing waste as a result of DWPF operations or storage in tanks that contain residual quantities of reprocessing waste.

On October 10, 2018, DOE published a notice in the **Federal Register** requesting public comment on its interpretation of the definition of the statutory term, ''high-level radioactive waste,'' as set forth in the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*) and the Nuclear Waste Policy Act (NWPA) (42 U.S.C. 10101 *et seq.*) (83 FR 50909). In that notice, DOE explained the history and basis for its interpretation to classify the reprocessing waste based on its radiological contents and not on the origin of the waste. Subsequently, on June 10, 2019, DOE published a Supplemental Notice in the **Federal Register** (84 FR 26835) that provided DOE's interpretation as informed by public review and comment and further consideration by DOE. DOE revised its interpretation after consideration of public comments, which included comments from the NRC, members of Congress, affected states and Native American tribes, and individual stakeholders, in order to clarify its meaning and import. This interpretation intends to facilitate the safe disposal of defense reprocessing waste if the waste meets either of the following two criteria:

1. Does not exceed concentration limits for Class C low-level radioactive waste as set out in section 61.55 of title 10, Code of Federal Regulations, and meets the performance objectives of a disposal facility; or

2. does not require disposal in a deep geologic repository and meets the performance objectives of a disposal facility as demonstrated through a performance assessment conducted in accordance with applicable requirements.

NRC's performance objectives for commercial LLW disposal facilities are specified in 10 CFR part 61, subpart C, ''Performance Objectives.''

As stated in the Supplemental Notice, DOE will continue its current practice of managing all of its defense reprocessing wastes as if they were HLW unless and until a specific waste is determined to be another category of waste based on detailed technical assessments of its characteristics and an evaluation of potential disposal pathways.

As discussed in the Final EA, DOE has evaluated representative samples of the DWPF recycle wastewater (see Final EA, Appendix A) and prepared a technical evaluation and an official determination for up to 8 gallons of DWPF recycle wastewater that demonstrate and document, that the DWPF recycle wastewater would meet criterion 1 for non-HLW under DOE's interpretation of the NWPA definition of HLW. As part of this process, DOE would verify with the licensee of the disposal facility that the stabilized waste meets the facility's waste acceptance criteria and all other requirements of the disposal facility, including applicable regulatory requirements for treatment and disposal prior to disposal and applicable U.S. Department of Transportation (USDOT) requirements for packaging and transportation from SRS to the commercial treatment or disposal facility.

DOE announced in a June 10, 2019, notice in the **Federal Register** (84 FR 26847) its intent to prepare an Environmental Assessment for the Commercial Disposal of Defense Waste Processing Facility Recycle Wastewater from the Savannah River Site (Draft EA). On December 10, 2019, DOE announced in the **Federal Register** (84 FR 67438) the availability of the Draft EA for public comment. DOE also posted the Draft EA on DOE websites for public review. DOE held an informational meeting on the Draft EA in Augusta, Georgia on December 17, 2019, and an informational internet webinar meeting on December 19, 2019, to provide the public and stakeholders with an overview of the Draft EA and the Department's HLW interpretation. On December 30, 2019, DOE announced in the **Federal Register** (84 FR 71909) that, in response to stakeholder requests, the original 30-day public comment period was extended to February 10, 2020 (*i.e.,* an extension of 32 days).

Proposed Action and Alternatives

DOE's Proposed Action in the Final EA is the disposal of up to 10,000 gallons of stabilized (grouted) DWPF recycle wastewater from SRS H-Area Tank Farm at a commercial LLW disposal facility located outside of South Carolina and licensed by either NRC or an Agreement State under 10 CFR part 61. If implemented, this proposal would provide alternative treatment and disposal options for DWPF recycle wastewater through the use of existing, licensed, off-site commercial treatment and disposal facilities. DOE has developed three action alternatives for accomplishing this Proposed Action. The Final EA also evaluated the No Action alternative.

- *Alternative 1:* Deploy retrieval and on-site treatment capability at SRS to stabilize up to 10,000 gallons of DWPF recycle wastewater and then transport the solid waste form to a licensed commercial LLW disposal facility. The stabilization technology planned for the DWPF recycle wastewater is grout. Depending upon whether the final packaged waste form is classified as Class A, B, or C LLW, it would then be shipped for disposal to either to the WCS FWF in Texas and/or the Energy*Solutions* in Utah.
- *Alternative 2:* Retrieval and transport of up to 10,000 gallons of SRS DWPF recycle wastewater to a licensed commercial LLW disposal facility (WCS FWF or Energy*Solutions* site) with the capability to stabilize and dispose of the final waste form.
- *Alternative 3:* Retrieval and transport of up to 10,000 gallons of SRS DWPF recycle wastewater to a permitted and/or licensed commercial treatment facility for stabilization and then transport the final solidified waste form to a licensed commercial LLW disposal facility (WCS FWF or Energy*Solutions*).

Under the No Action alternative, up to 10,000 gallons of DWPF recycle wastewater would remain in the SRS liquid waste system until disposition occurs. This alternative would require another, as yet determined, process to handle the DWPF recycle wastewater during the final years of the DWPF mission (2031–2034), when DOE will no longer have the option of returning DWPF recycle wastewater to SWPF for processing.

Potential Environmental Impacts

The analyses in the Final EA demonstrates that the proposed action and alternatives entail minimal risk to human health or to the quality of the environment for all three action alternatives analyzed. All the proposed alternatives would have minor potential environmental impacts. Section 3 of the Final EA analyzed the following resource areas in detail: (1) Air quality, (2) human health (normal operations),

(3) human health (accidents and intentional destructive acts), (4) waste management, and (5) transportation.

Air quality impacts would be negligible for all alternatives. The recycle wastewater would be transferred from Tank 22 to a temporary enclosure for on-site stabilization (Alternative 1 only) and packaging (Alternatives 2 and 3). Measures would be taken to prevent radiological air emissions during the on-site activities. These measures would include the use of air filters on containers, transfer hoses, and temporary structures. The estimated number of truck shipments (up to 30 shipments) would produce negligible air emissions, including greenhouse gas, and treatment and disposal actions at the commercial facilities would not cause any additional air emissions beyond those already expected from their ongoing, permitted and/or licensed operations.

Potential impacts to workers at SRS and the public from normal operations would be minimal for all three action alternatives. Potential doses to workers would be well within the administrative control level for SRS workers and would result in zero latent cancer fatalities (LCFs). In addition, DOE would implement measures (*e.g.,* use of shielding and personal protective equipment) to minimize worker exposures and maintain doses as low as reasonably achievable. Because there would be no radiological emissions or effluents associated with any of the three alternatives, and no direct radiation dose off-site, there would be no dose to the public from normal operations. Potential impacts from treatment and disposal actions at the commercial facility would not result in any notable increase in human health impacts beyond those already expected from ongoing LLW treatment and disposal operations under their environmental permits and/or licenses.

An accident or intentional destructive act involving the release of DWPF recycle wastewater during on-site activities would result in minimal impacts to workers and the public, based on conservative accident scenario analysis. For example, the potential dose from an accident to a maximally exposed worker would be less than or equal to 30 to 38 millirems (mrem), which is significantly below DOE's administrative control level of 2,000 mrem per year for a worker, and below the SRS contractor's administrative control level of 500 mrem per year. This exposure would be expected to result in zero LCFs. The potential dose from an accident to an off-site maximally exposed individual would be less than or equal to 17 to 28 mrem, which is approximately 1,000 times below the DOE exposure guidelines of 25 rem for a member of the public at the nearest site boundary. This exposure would be expected to result in 0 zero LCFs. Treatment and/or disposal of the DWPF recycle wastewater at a permitted and/or licensed facility would not change the accident impacts at those sites compared to their ongoing operations.

Waste management impacts at SRS and the potential disposal sites would be minimal. The 10,000 gallons of DWPF recycle wastewater would represent about 10,000 gallons of stabilized waste, or about 0.002 percent of the Energy*Solutions* licensed capacity or .01 percent of WCS FWF licensed capacity. Actions at SRS would also result in small quantities (probably less than 10 cubic yards) of job control waste that would be negligible compared with LLW quantities generated by existing operations at SRS. Stabilization activities at a commercial site for Alternatives 2 and 3 would not generate additional waste types beyond those already expected and associated with the site license.

The transportation of stabilized (solid form) or liquid DWPF recycle wastewater would involve approximately 9 truck shipments for Alternative 1 (solid form), 15 truck shipments for Alternative 2 (liquid form), and 30 truck shipments for Alternative 3 (15 shipments in liquid form and 15 shipments in solid form). The waste would be packaged and shipped in accordance with USDOT requirements. The potential radiological and non-radiological risks to the truck crew and the public along the transportation route would be negligible. In the event an accident did occur, the probability of a release of radiological material would be extremely unlikely.

Consistent with both CEQ and DOE NEPA regulations, the analysis in the Final EA focused on the subjects relevant to the proposed action and its impacts. Based on a screening analysis described in the Final EA, the following resource areas do not require additional detailed analysis: Land, visual, geology and soils, water resources (surface, groundwater, and wetlands), cultural and paleontological resources, ecological resources (biota, threatened and endangered species), noise, socioeconomics and environmental justice, infrastructure and utilities, and industrial safety.

External Review and Comments

Nineteen comment documents were received during the public comment period on the Draft EA. Commenters included federal and state agencies, environmental groups, advisory groups, and citizens. Appendix C of the Final EA includes responses to public comments received on the Draft EA. DOE considered all public comments received in preparing the Final EA.

Determination

In the Final EA, DOE evaluated the potential environmental impacts associated with retrieval, transportation, stabilization, and disposal of up to 10,000 gallons of DWPF recycle wastewater from SRS at a licensed commercial LLW disposal facility outside of the state of South Carolina. Implementation of any of the action alternatives analyzed in the Final EA would entail minor impacts and low risks, and does not constitute a major Federal action significantly affecting the quality of the human environment in accordance with DOE's NEPA implementing procedures, 10 CFR part 1021, and the regulations promulgated by the CEQ for implementing NEPA, 40 CFR 1508.27. Therefore, the preparation of an environmental impact statement is not required.

Based on the analysis in the Final EA, DOE intends to ship the DWPF recycle wastewater to WCS FWF, a licensed commercial disposal facility located in Andrews, Texas, for stabilization and disposal (Alternative 2). Current characterization analysis shows that the DWPF recycle wastewater is anticipated to be Class B LLW. Of the licensed commercial facilities analyzed in the Final EA, the WCS FWF is the only facility that can accept Class A, B, and C LLW for disposal. In addition, WCS has the capability to stabilize the DWPF recycle wastewater on-site prior to disposal.

Specifically, as soon as August 26, 2020, DOE intends to initiate removal of DWPF wastewater from Tank 22 to begin the disposition process and within the next 12 months,[2] DOE intends to initiate the shipment of a small quantity (up to 8 gallons) from the up to 10,000 gallons of DWPF recycle wastewater to the WCS FWF for treatment and disposal in accordance with the facility's waste acceptance criteria, license conditions, environmental permits, and all other applicable requirements. DOE has evaluated representative samples of the DWPF recycle wastewater (see Final EA, Appendix A) and prepared a technical

[2] This small quantity (up to 8 gallons) would enable DOE to initiate the transportation, stabilization, and disposal within the next 12 months.

evaluation and an official determination for up to 8 gallons of DWPF recycle wastewater that demonstrate and document, that the DWPF recycle wastewater would meet criterion 1 for non-HLW under DOE's interpretation of the NWPA definition of HLW. The technical reports are available at: *https://www.energy.gov/em/program-scope/high-level-radioactive-waste-hlw-interpretation.*

Signing Authority

This document of the Department of Energy was signed on August 4, 2020, by Elizabeth A. Connell, Associate Principal Deputy Assistant Secretary for Regulatory and Policy Affairs, Office of Environmental Management, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on August 5, 2020.

Treena V. Garrett,

Federal Register Liaison Officer, Department of Energy.

[FR Doc. 2020–17374 Filed 8–7–20; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

National Nuclear Security Administration

Defense Programs Advisory Committee

AGENCY: Office of Defense Programs, National Nuclear Security Administration, Department of Energy.

ACTION: Notice of closed meeting.

SUMMARY: This notice announces a closed meeting of the Defense Programs Advisory Committee (DPAC). The Federal Advisory Committee Act requires that public notice of meetings be announced in the **Federal Register**. Due to national security considerations, under, the meeting will be closed to the public and matters to be discussed are exempt from public disclosure under Executive Order 13526, and the Atomic Energy Act of 1954.

DATES: August 25, 2020; 11:00 a.m. to 7:00 p.m.

ADDRESSES: Cisco WebEx Secure Video Conferencing.

FOR FURTHER INFORMATION CONTACT: Rachel Barnhill, Office of RDT&E (NA–11), National Nuclear Security Administration, U.S. Department of Energy, 1000 Independence Ave. SW, Washington, DC 20585, (202) 586–7183; *rachel.barnhill@nnsa.doe.gov*.

SUPPLEMENTARY INFORMATION:

Background: The DPAC provides advice and recommendations to the Deputy Administrator for Defense Programs on the stewardship and maintenance of the Nation's nuclear deterrent.

Purpose of the Meeting: The purpose of this meeting is to finalize DPAC recommendations to the Stockpile Responsiveness Program and discuss the path ahead on new topics.

Type of Meeting: In the interest of national security, the meeting will be closed to the public. The Federal Advisory Committee Act, 5 U.S.C. App. 2, section 10(d), and the Federal Advisory Committee Management Regulation, 41 CFR 102–3.155, incorporate by reference the Government in the Sunshine Act, 5 U.S.C. 552b, which, at 552b(c)(1) and (c)(3) permits closure of meetings where restricted data or other classified matters will be discussed. Such data and matters will be discussed at this meeting.

Tentative Agenda: Welcome; reading of final draft of report; discussion of report, as necessary; (tentative) acceptance of report; discussion of next charges; conclusion.

Public Participation: There will be no public participation in this closed meeting. Those wishing to provide written comments or statements to the Committee are invited to send them to Rachel Barnhill at the address listed above.

Minutes: The minutes of the meeting will not be available.

Signed in Washington, DC on August 5, 2020.

LaTanya Butler,

Deputy Committee Management Officer.

[FR Doc. 2020–17404 Filed 8–7–20; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

Docket Number: PR20–32–001.

Applicants: Columbia Gas of Ohio, Inc.

Description: Tariff filing per 284.123(b),(e)/: COH SOC Revision effective Sept 1 2020 to be effective 9/1/2020.

Filed Date: 7/31/2020.

Accession Number: 202007315141.

Comments/Protests Due: 5 p.m. ET 8/21/2020.

Docket Numbers: RP19–1426–007.

Applicants: National Fuel Gas Supply Corporation.

Description: Compliance filing Compliance Filing (GT&C 42)—RP19–1429 to be effective 2/1/2020.

Filed Date: 7/29/20.

Accession Number: 20200729–5101.

Comments Due: 5 p.m. ET 8/10/20.

Docket Numbers: RP20–1081–000.

Applicants: Equitrans, L.P.

Description: § 4(d) Rate Filing: Expired Negotiated Rate Agreement—9/30/2020 to be effective 10/1/2020.

Filed Date: 8/3/20.

Accession Number: 20200803–5036.

Comments Due: 5 p.m. ET 8/17/20.

Docket Numbers: RP20–1082–000.

Applicants: Equitrans, L.P.

Description: § 4(d) Rate Filing: Formula Based Negotiated Rate—10/1/2020 Update to be effective 10/1/2020.

Filed Date: 8/3/20.

Accession Number: 20200803–5037.

Comments Due: 5 p.m. ET 8/17/20.

Docket Numbers: RP20–1083–000.

Applicants: Equitrans, L.P.

Description: § 4(d) Rate Filing: Negotiated Rate Capacity Release Agreements—8/1/2020 to be effective 8/1/2020.

Filed Date: 8/3/20.

Accession Number: 20200803–5043.

Comments Due: 5 p.m. ET 8/17/20.

Docket Numbers: RP20–1084–000.

Applicants: Algonquin Gas Transmission, LLC.

Description: § 4(d) Rate Filing: Negotiated Rates—August 2020 Cleanup Filing to be effective 9/3/2020.

Filed Date: 8/3/20.

Accession Number: 20200803–5071.

Comments Due: 5 p.m. ET 8/17/20.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but

intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: August 4, 2020.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2020–17383 Filed 8–7–20; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RM98–1–000]

Records Governing Off-the-Record Communications; Public Notice

This constitutes notice, in accordance with 18 CFR 385.2201(b), of the receipt of prohibited and exempt off-the-record communications.

Order No. 607 (64 FR 51222, September 22, 1999) requires Commission decisional employees, who make or receive a prohibited or exempt off-the-record communication relevant to the merits of a contested proceeding, to deliver to the Secretary of the Commission, a copy of the communication, if written, or a summary of the substance of any oral communication.

Prohibited communications are included in a public, non-decisional file associated with, but not a part of, the decisional record of the proceeding. Unless the Commission determines that the prohibited communication and any responses thereto should become a part of the decisional record, the prohibited off-the-record communication will not be considered by the Commission in reaching its decision. Parties to a proceeding may seek the opportunity to respond to any facts or contentions made in a prohibited off-the-record communication and may request that the Commission place the prohibited communication and responses thereto in the decisional record. The Commission will grant such a request only when it determines that fairness so requires. Any person identified below as having made a prohibited off-the-record communication shall serve the document on all parties listed on the official service list for the applicable proceeding in accordance with Rule 2010, 18 CFR 385.2010.

Exempt off-the-record communications are included in the decisional record of the proceeding, unless the communication was with a cooperating agency as described by 40 CFR 1501.6, made under 18 CFR 385.2201(e)(1)(v).

The following is a list of off-the-record communications recently received by the Secretary of the Commission. The communications listed are grouped by docket numbers in ascending order. In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at *FERCOnlineSupport@ferc.gov* or toll free at (866) 208–3676, or for TTY, contact (202) 502–8659.

Docket nos.	File date	Presenter or requester
Prohibited:		
1. ER20–2308–000	7–22–2020	FERC Staff.[1]
2. ER20–2046–000	7–22–2020	FERC Staff.[2]
Exempt:		
1. ER20–2308–000	7–22–2020	FERC Staff.[3]
2. ER20–2046–000	7–23–2020	FERC Staff.[4]
3. CP20–48–000	7–29–2020	U.S Fish and Wildlife Service.
4. CP16–10–000	7–29–2020	U.S. Senator Tim Kaine.

[1] Memo dated 07/22/2020 providing the opening statement filed by FirstEnergy on 6/30/2020.
[2] Memo dated 07/22/2020 providing the opening statement filed by FirstEnergy on 6/30/2020.
[3] Memo dated 07/22/2020 providing the opening statement filed by the Public Utilities Commission of Ohio on 7/2/2020.
[4] Memo dated 07/22/2020 providing the opening statement filed by the Public Utilities Commission of Ohio on 7/2/2020.

Dated: August 4, 2020.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2020–17382 Filed 8–7–20; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG20–224–000.

Applicants: Nobles 2 Power Partners, LLC.

Description: Notice of Self-Certification of Exempt Wholesale Generator Status of Nobles 2 Power Partners, LLC.

Filed Date: 8/3/20.

Accession Number: 20200803–5208.

Comments Due: 5 p.m. ET 8/24/20.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER10–2645–003.

Applicants: Baconton Power LLC.

Description: Notice of Non-Material Change in Status of Baconton Power LLC.

Filed Date: 8/3/20.

Accession Number: 20200803–5259.

Comments Due: 5 p.m. ET 8/24/20.

Docket Numbers: ER10–3115–006.

Applicants: Waterside Power, LLC.

Description: Second Supplement to April 20, 2020 Triennial Market Power Update for the Northeast Region of Waterside Power, LLC.

Filed Date: 8/4/20.

Accession Number: 20200804–5197.

Comments Due: 5 p.m. ET 8/25/20.

Docket Numbers: ER10–3117–008.

Applicants: Lea Power Partners, LLC.

Description: Second Supplement to April 20, 2020 Triennial Market Power Update for the Southwest Power Pool Region of Lea Power Partners, LLC.

Filed Date: 8/4/20.

Accession Number: 20200804–5199.
Comments Due: 5 p.m. ET 8/25/20.

Docket Numbers: ER15–705–006.
Applicants: Pacific Gas and Electric Company.
Description: Compliance filing: Compliance filing CCSF IA and TFAs Following Order on Rehearing (TO SA 284) to be effective 7/23/2015.
Filed Date: 8/4/20.
Accession Number: 20200804–5045.
Comments Due: 5 p.m. ET 8/25/20.

Docket Numbers: ER15–705–007.
Applicants: Pacific Gas and Electric Company.
Description: Compliance filing: Compliance filing CCSF IA and TFAs Following Order on Rehearing (TO SA 284) to be effective 7/1/2015.
Filed Date: 8/4/20.
Accession Number: 20200804–5047.
Comments Due: 5 p.m. ET 8/25/20.

Docket Numbers: ER20–2517–000.
Applicants: Northern Colorado Interconnect, LLC.
Description: Supplement to July 28, 2020 Northern Colorado Interconnect, LLC tariff filing and Request for Waiver of the 60-day Advance Notice Requirement.
Filed Date: 8/4/20.
Accession Number: 20200804–5225.
Comments Due: 5 p.m. ET 8/18/20.

Docket Numbers: ER20–2603–000.
Applicants: Skeleton Creek Wind, LLC.
Description: Baseline eTariff Filing: Skeleton Creek Wind, LLC Application for MBR Authority to be effective 10/3/2020.
Filed Date: 8/3/20.
Accession Number: 20200803–5192.
Comments Due: 5 p.m. ET 8/24/20.

Docket Numbers: ER20–2604–000.
Applicants: California Independent System Operator Corporation.
Description: Petition for Approval of Disposition of Penalty Assessment Proceeds and non-Refundable Interconnection Financial Security of the California Independent System Operator Corporation.
Filed Date: 8/3/20.
Accession Number: 20200803–5263.
Comments Due: 5 p.m. ET 8/24/20.

Docket Numbers: ER20–2605–000.
Applicants: Southwest Power Pool, Inc.
Description: § 205(d) Rate Filing: 3590R2 King Plains Wind Project GIA to be effective 7/30/2020.
Filed Date: 8/4/20.
Accession Number: 20200804–5178.
Comments Due: 5 p.m. ET 8/25/20.

Docket Numbers: ER20–2606–000.
Applicants: Duke Energy Florida, LLC.
Description: § 205(d) Rate Filing: DEF-Duette Solar E&P Agreement RS No. 298 to be effective 8/5/2020.
Filed Date: 8/4/20.
Accession Number: 20200804–5221.
Comments Due: 5 p.m. ET 8/25/20.

Take notice that the Commission received the following qualifying facility filings:

Docket Numbers: QF20–1229–000.
Applicants: YCI Methanol One, LLC.
Description: Form 556 of YCI Methanol One, LLC.
Filed Date: 8/3/20.
Accession Number: 20200803–5275.
Comments Due: Non-Applicable.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: August 4, 2020.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2020–17384 Filed 8–7–20; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ -OW–2003–0033; FRL—10013–32–OW]

Proposed Information Collection Request; Comment Request; Modification of Secondary Treatment Requirements for Discharges Into Marine Waters (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) is planning to submit an information collection request (ICR), ''Modification of Secondary Treatment Requirements for Discharges into Marine Waters (Renewal)'' (EPA ICR No. 0138.12, Office of Management and Budget (OMB) Control No. 2040–0088) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act (PRA). Before doing so, EPA is soliciting public comment on specific aspects of the proposed information collection as described below. This is a ''proposed extension of the Information Collection Request (ICR), which is currently approved through April 30, 2021.'' An Agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

DATES: Comments must be submitted on or before October 9, 2020.

ADDRESSES:

You may send comments, identified by Docket ID No. EPA–HQ–2003–0033, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Email: OW-Docket@epa.gov.* Include Docket ID No. EPA–HQ–2003–0033.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Office of Water Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

Instructions: All submissions received must include the Docket ID No. for this ICR. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the ICR process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are closed to the public, with limited exceptions, to reduce the risk of transmitting COVID–19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. We encourage the public to submit comments via *https://www.regulations.gov/* or email, as there may be a delay in processing mail. Hand deliveries and couriers may be received by scheduled appointment only. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Virginia Fox-Norse, Oceans, Wetlands

and Communities Division, Office of Water, (4504T), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: 202–566–1266; fax number: 202–566–1147; email address: *fox-norse.virginia@epa.gov.*

SUPPLEMENTARY INFORMATION:

Public Participation

A. Written Comments

Submit your comments, identified by Docket ID No. EPA–HQ–2003–0033, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

EPA is temporarily suspending its Docket Center and Reading Room for public visitors, with limited exceptions, to reduce the risk of transmitting COVID–19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. We encourage the public to submit comments via *https://www.regulations.gov/* as there may be a delay in processing mail and faxes. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

Supporting documents which explain in detail the information that EPA will be collecting are available in the public docket for this ICR. The docket can be viewed online at *www.regulations.gov.* The telephone number for the Docket Center is 202–566–1744. For additional information about EPA's public docket, visit *http://www.epa.gov/dockets.*

Pursuant to section 3506(c)(2)(A) of the Paperwork Reduction Act, EPA is soliciting comments and information to enable it to: (i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility; (ii) evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (iii) enhance the quality, utility, and clarity of the information to be collected; and (iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses. EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval. At that time, EPA will issue another **Federal Register** notice to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB.

Abstract: Regulations implementing section 301(h) of the Clean Water Act (CWA) are found at 40 CFR part 125, subpart G. The CWA section 301(h) program involves collecting information from two sources: (1) the municipal wastewater treatment facility, commonly called a publicly owned treatment works (POTW), and (2) the state in which the POTW is located. Municipalities had the opportunity to apply for a waiver from secondary treatment requirements, but that opportunity closed in December of 1982. A POTW holding a current waiver or reapplying for a waiver provides application, monitoring, and toxic control program information. The state provides information on its determination whether the discharge under the proposed conditions of the waiver ensures the protection of water quality, biological habitats, and beneficial uses of receiving waters and whether the discharge will result in additional treatment, pollution control, or any other requirement for any other point or nonpoint sources. The state also provides information to certify that the discharge will meet all applicable state laws and that the state accepts all permit conditions.

There are four situations where information will be required under the CWA section 301(h) program:

(1) A POTW reapplying for a CWA section 301(h) waiver. As the permits with section 301(h) waivers reach their expiration dates, EPA must have updated information on the discharge to determine whether the CWA section 301(h) criteria are still being met and whether the CWA section 301(h) waiver should be reissued. Under 40 CFR 125.59(f), each CWA section 301(h) permittee is required to submit an application for a new section 301(h) modified permit within 180 days of the existing permit's expiration date. 40 CFR 125.59(c) lists the information required for a modified permit. The information that EPA needs to determine whether the POTW's reapplication meets the CWA section 301(h) criteria is outlined in the questionnaire attached to 40 CFR part 125, subpart G.

(2) Monitoring and toxic control program information: Once a waiver has been granted, EPA must continue to assess whether the discharge is meeting CWA section 301(h) criteria, and that the receiving water quality, biological habitats, and beneficial uses of the receiving waters are protected. To do this, EPA needs monitoring information furnished by the permittee. According to 40 CFR 125.68(d), any permit issued with a section 301(h) waiver must contain the monitoring requirements of 40 CFR 125.63(b), (c), and (d) for biomonitoring, water quality criteria and standards monitoring, and effluent monitoring, respectively. In addition, 40 CFR 125.68(d) requires reporting at the frequency specified in the monitoring program. In addition to monitoring information, EPA needs information on the toxics control program required by 40 CFR 125.66 to ensure that the permittee is effectively minimizing industrial and nonindustrial toxic pollutant and pesticide discharges into the treatment works.

(3) Application revision information: 40 CFR 125.59(d) allows a POTW to revise its application one time only, following a tentative decision by EPA to deny the waiver request. In its application revision, the POTW usually corrects deficiencies and changes proposed treatment levels as well as outfall and diffuser locations. The application revision is a voluntary submission for the applicant, and a letter of intent to revise the application must be submitted within 45 days of EPA's tentative decision (40 CFR 125.59(f)). EPA needs this information to evaluate revised applications to determine whether the modified

discharge will ensure protection of water quality, biological habitats, and beneficial uses of receiving waters.

(4) State determination and state certification information: For revised or renewal applications for CWA section 301(h) waivers, EPA needs a state determination. The state determines whether all state laws (including water quality standards) are satisfied. This helps ensure that water quality, biological habitats, and beneficial uses of receiving waters are protected. Additionally, the state must determine if the applicant's discharge will result in additional treatment, pollution control, or any other requirement for any other point or nonpoint sources. This process allows the state's views to be taken into account when EPA reviews the CWA section 301(h) application and develops permit conditions. For revised and renewed CWA section 301(h) waiver applications, EPA also needs the CWA section 401(a)(1) certification information to ensure that all state water quality laws are met by any permit it issues with a CWA section 301(h) modification, and the state accepts all the permit conditions. This information is the means by which the state can exercise its authority to concur with or deny a CWA section 301(h) decision made by the EPA regional office.

Form Numbers: ''None.''

Respondents/affected entities: Entities potentially affected by this action are those municipalities that currently have CWA section 301(h) waivers from secondary treatment or have applied for a renewal of a CWA section 301(h) waiver, and the states within which these municipalities are located.

Respondent's obligation to respond: Voluntary, required to obtain or retain a benefit.

Estimated number of respondents: 34 (total).

Frequency of response: From once every five years, to varies case-by-case, depending on the category of information.

Total estimated burden: 40,040 hours (per year). Burden is defined at 5 CFR 1320.03(b)

Total estimated cost: $1.1 million (per year), includes $0 annualized capital or operation & maintenance costs.

Changes in Estimates: A decrease of hours in the total estimated respondent burden is expected compared with the ICR currently approved by OMB. EPA expects the numbers will decrease due to changes in respondent universe, use of technology, etc.

John Goodin,

Director, Office of Wetlands, Oceans and Watersheds.

[FR Doc. 2020–17419 Filed 8–7–20; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–10012–82–Region 5]

Public Water System Supervision Program Approval for the State of Ohio

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of tentative approval.

SUMMARY: Notice is hereby given that the Environmental Protection Agency (EPA) has tentatively approved a revision to the State of Ohio's Public Water System Supervision Program under the federal Safe Drinking Water Act (SDWA) by adopting the Arsenic Rule. The EPA has determined this revision is no less stringent than the corresponding federal regulation. Therefore, EPA intends to approve this revision to the State of Ohio's Public Water System Supervision Program, thereby giving the Ohio Environmental Protection Agency primary enforcement responsibility for this regulation.

DATES: Any interested party may request a public hearing on this determination. A request for a public hearing must be submitted by September 9, 2020. The EPA Region 5 Administrator may deny frivolous or insubstantial requests for a hearing. However, if a substantial request for a public hearing is made by September 9, 2020, EPA Region 5 will hold a public hearing, and a notice of such hearing will be published in the **Federal Register** and a newspaper of general circulation. Any request for a public hearing shall include the following information: The name, address, and telephone number of the individual, organization, or other entity requesting a hearing; a brief statement of the requesting person's interest in the Regional Administrator's determination and a brief statement of the information that the requesting person intends to submit at such hearing; and the signature of the individual making the request, or, if the request is made on behalf of an organization or other entity, the signature of a responsible official of the organization or other entity.

If EPA Region 5 does not receive a timely and appropriate request for a hearing and the Regional Administrator does not elect to hold a hearing on his own motion, this determination shall become final and effective on September 9, 2020 and no further public notice will be issued.

ADDRESSES: All documents relating to this determination are available for inspection at the following offices between the hours of 9 a.m. and 4 p.m., Monday through Friday, except for official holidays and unless the offices are inaccessible due to COVID–19: Ohio Environmental Protection Agency, Division of Drinking and Ground Waters, 50 West Town Street, Suite 700, Columbus, Ohio 43215; and the U.S. Environmental Protection Agency Region 5, Ground Water and Drinking Water Branch (WG–15J), 77 W. Jackson Blvd., Chicago, Illinois 60604. Requestors can email Wendy Drake, *drake.wendy@epa.gov,* to receive documents related to this determination if offices are inaccessible.

FOR FURTHER INFORMATION CONTACT: Wendy Drake, EPA Region 5, Ground Water and Drinking Water Branch, at the address given above, by telephone at (312) 886–6705, or at *drake.wendy@epa.gov.*

Authority: Section 1413 of the Safe Drinking Water Act, 42 U.S.C. 300g–2, and the federal regulations implementing Section 1413 of the Act set forth at 40 CFR part 142.

Dated: August 4, 2020.

Kurt Thiede,

Regional Administrator, Region 5.

[FR Doc. 2020–17413 Filed 8–7–20; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–ORD–2015–0765; FRL–10013–23–ORD]

Board of Scientific Counselors (BOSC) Homeland Security Subcommittee Meeting—August 2020

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of public meeting.

SUMMARY: The Environmental Protection Agency (EPA), Office of Research and Development (ORD), gives notice of a virtual meeting of the Board of Scientific Counselors (BOSC) Homeland Security (HS) Subcommittee to review the initial progress on implementation of the FY 19–22 HS Strategic Research Action Plan (StRAP).

DATES: 1. The initial meeting will be held over two days via videoconference:

a. Thursday, August 20, 2020, from 12:00 p.m. to 5:00 p.m. (EDT); and

b. Friday, August 21, 2020, from 12:00 p.m. to 5:00 p.m. (EDT). Attendees must register by August 19, 2020.

2. A BOSC deliberation will be held on Wednesday, September 9, 2020, from 2:00 p.m. to 5:00 p.m. (EDT). Attendees must register by September 8, 2020.

3. A final summary teleconference will be held on Thursday, September 24, 2020, from 2:00 p.m. to 5:00 p.m. (EDT). Attendees must register by September 23, 2020. Meeting times are subject to change. These series of meetings are open to the public. Comments must be received by August 19, 2020 to be considered by the subcommittee. Requests for the draft agenda or making a presentation at the meeting will be accepted until August 19, 2020.

ADDRESSES: Instructions on how to connect to the videoconference will be provided upon registration at *https://epa-bosc-homeland-security-subcommittee.eventbrite.com.*

Submit your comments to Docket ID No. EPA–HQ–ORD–2015–0765 by one of the following methods:

• *www.regulations.gov:* Follow the online instructions for submitting comments.

▪ *Note:* comments submitted to the *www.regulations.gov* website are anonymous unless identifying information is included in the body of the comment.

• *Email:* Send comments by electronic mail (email) to: *ORD.Docket@epa.gov,* Attention Docket ID No. EPA–HQ–ORD–2015–0765.

▪ *Note:* comments submitted via email are not anonymous. The sender's email will be included in the body of the comment and placed in the public docket which is made available on the internet.

Instructions: All comments received, including any personal information provided, will be included in the public docket without change and may be made available online at *www.regulations.gov.* Information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute will not be included in the public docket, and should not be submitted through *www.regulations.gov* or email. For additional information about the EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/dockets/.*

Public Docket: Publicly available docket materials may be accessed *Online* at *www.regulations.gov.*

Copyrighted materials in the docket are only available via hard copy. The telephone number for the ORD Docket Center is (202) 566–1752.

FOR FURTHER INFORMATION CONTACT: The Designated Federal Officer (DFO), Tom Tracy, via phone/voicemail at: (202) 564–6518; or via email at: *tracy.tom@epa.gov.* Any member of the public interested in receiving a draft agenda, attending the meeting, or making a presentation at the meeting should contact Tom Tracy no later than August 19, 2020.

SUPPLEMENTARY INFORMATION: The Board of Scientific Counselors (BOSC) is a Federal advisory committee that provides advice and recommendations to EPA's Office of Research and Development on technical and management issues of its research programs. The meeting agenda and materials will be posted to *https://www.epa.gov/bosc.*

Proposed agenda items for the meeting include, but are not limited to, the following: Water Security & Resilience, Oil Response, and Progress of StRAP Implementation.

Information on Services Available: For information on translation services, access, or services for individuals with disabilities, please contact Tom Tracy at (202) 564–6518 or *tracy.tom@epa.gov.* To request accommodation of a disability, please contact Tom Tracy at least ten days prior to the meeting to give the EPA adequate time to process your request.

Authority: Pub. L. 92–463, 1, Oct. 6, 1972, 86 Stat. 770.

Dated: July 29, 2020.

Mary Ross,

Director, Office of Science Advisor, Policy, and Engagement.

[FR Doc. 2020–17420 Filed 8–7–20; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

[FRS 16986]

Federal Advisory Committee Act; Communications Security, Reliability, and Interoperability Council

AGENCY: Federal Communications Commission.

ACTION: Notice of public meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, this notice advises interested persons that the Federal Communications Commission's (FCC or Commission) Communications Security, Reliability, and Interoperability Council (CSRIC) VII will hold its sixth meeting via live internet link.

DATES: September 16, 2020.

ADDRESSES: The Meeting will be held via conference call and available to the public via WebEx at *http://www.fcc.gov/live.*

FOR FURTHER INFORMATION CONTACT: Suzon Cameron, Designated Federal Officer, (202) 418–1916 (voice) or *CSRIC@fcc.gov* (email); or, Kurian Jacob, Deputy Designated Federal Officer, (202) 418–2040 (voice) or *CSRIC@fcc.gov* (email).

SUPPLEMENTARY INFORMATION: The meeting on September 16, 2020, from 2:00 p.m. EDT to 5:00 p.m. EDT will be held electronically only and may be viewed live, by the public, at *http://www.fcc.gov/live.* Any questions that arise during the meeting should be sent to *CSRIC@fcc.gov* and will be answered at a later date. The meeting is being held in a wholly electronic format in light of travel and gathering restrictions related to COVID–19 in place in Washington, DC, and the larger U.S. which affects members of the CSRIC and the FCC.

The CSRIC is a Federal Advisory Committee that will provide recommendations to the FCC to improve the security, reliability, and interoperability of communications systems. On March 15, 2019, the FCC, pursuant to the Federal Advisory Committee Act, renewed the charter for CSRIC VII for a period of two years through March 14, 2021. The meeting on September 16, 2020, will be the sixth meeting of CSRIC VII under the current charter.

The Commission will provide audio and/or video coverage of the meeting over the internet from the FCC's web page at *http://www.fcc.gov/live.* The public may submit written comments before the meeting to Suzon Cameron, CSRIC Designated Federal Officer, by email *CSRIC@fcc.gov* or U.S. Postal Service Mail to Suzon Cameron, Senior Attorney, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, Federal Communications Commission, 445 12th Street SW, Room 7–B458, Washington, DC 20554. Open captioning will be provided for this event. Other reasonable accommodations for people with disabilities are available upon request. Requests for such accommodations should be submitted via email to *fcc504@fcc.gov* or by calling the Consumer & Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (tty). Such requests should include a detailed description of the accommodation needed. In addition, please include a way the FCC can contact you if it needs more information. Please allow at least five

days' advance notice; last-minute requests will be accepted but may be impossible to fill.

Federal Communications Commission.

Marlene Dortch,

Secretary.

[FR Doc. 2020–17429 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0190, OMB 3060–0340, OMB 3060–0633, OMB 3060–0727 and OMB 3060–1154; FRS 16987]

Information Collections Being Reviewed by the Federal Communications Commission Under Delegated Authority

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA), the Federal Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

DATES: Written comments should be submitted on or before October 9, 2020. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION: The FCC may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number. As part of its continuing effort to reduce paperwork burdens, and as required by the PRA of 1995 (44 U.S.C. 3501–3520), the FCC invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

OMB Control Number: 3060–0190.

Title: Section 73.3544, Application To Obtain a Modified Station License.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities; Not-for-profit institutions.

Number of Respondents and Responses: 325 respondents and 325 responses.

Estimated Time per Response: 0.25–1 hour.

Frequency of Response: On occasion reporting requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this information collection is contained in 47 Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 306 hours.

Total Annual Cost: $75,000.

Privacy Impact Assessment(s): No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality and respondents are not being asked to submit confidential information to the Commission.

Needs and Uses: The information collection requirements contained in this collection are covered in 47 CFR 73.3544(b) requires an informal application, see Sec. 73.3511(b), may be filed with the FCC in Washington, DC, Attention: Audio Division (radio) or Video Division (television), Media Bureau, to cover the following changes:

(1) A correction of the routing instructions and description of an AM station directional antenna system field monitoring point, when the point itself is not changed.

(2) A change in the type of AM station directional antenna monitor. See Sec. 73.69.

(3) A change in the location of the station main studio when prior authority to move the main studio location is not required.

(4) The location of a remote control point of an AM or FM station when prior authority to operate by remote control is not required.

Also, information collection requirements are contained in 47 CFR 73.3544(c) which requires a change in the name of the licensee where no change in ownership or control is involved may be accomplished by written notification by the licensee to the Commission.

OMB Control Number: 3060–0340.

Title: Section 73.51, Determining Operating Power.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 750 respondents; 834 responses.

Estimated Time per Response: 0.25 to 3.0 hours.

Frequency of Response: Recordkeeping requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 440 hours.

Total Annual Cost: None.

Privacy Impact Assessment(s): No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality and respondents are not being asked to submit confidential information to the Commission.

Needs and Uses: When it is not possible to use the direct method of power determination due to technical reasons, the indirect method of determining antenna input power might be used on a temporary basis. 47 CFR 73.51(d) requires that a notation be made in the station log indicating the dates of commencement and termination of measurement using the

indirect method of power determination. 47 CFR 73.51(e) requires that AM stations determining the antenna input power by the indirect method must determine the value F (efficiency factor) applicable to each mode of operation and must maintain a record thereof with a notation of its derivation. FCC staff use this information in field investigations to monitor licensees' compliance with the FCC's technical rules and to ensure that licensee is operating in accordance with its station authorization. Station personnel use the value F (efficiency factor) in the event that measurement by the indirect method of power is necessary.

OMB Control Number: 3060–0633.

Title: Sections 73.1230, 74.165, 74.432, 74.564, 74.664, 74.765, 74.832, 74.1265 Posting or Filing of Station Licenses.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities, Not-for-profit institutions, Federal Government and State, local or Tribal Government.

Number of Respondents and Responses: 2,584 respondents and 2,584 responses.

Estimated Hours per Response: 0.083 hours.

Frequency of Response: On occasion reporting requirement, recordkeeping requirement and third party disclosure requirement.

Obligation to Responds: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Section 154(i) of the Communications Act of 1934, as amended.

Total Annual Burden: 214 hours.

Total Annual Cost: $24,860.

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Privacy Impact Assessment: No impact(s).

Needs and Uses: The information collection requirements contained in this collection are as follows:

47 CFR 73.1230 requires that the station license and any other instrument of station authorization for an AM, FM or TV station be posted in a conspicuous place at the place the licensee considers to be the principal control point of the transmitter.

47 CFR 74.165 requires that the instrument of authorization for an experimental broadcast station be available at the transmitter site.

47 CFR 74.432(j) (remote pickup broadcast station) and 47 CFR 74.832(j) (low power auxiliary station) require that the license of a remote pickup broadcast/low power auxiliary station shall be retained in the licensee's files, posted at the transmitter, or posted at the control point of the station. These sections also require the licensee to forward the station license to the FCC in the case of permanent discontinuance of the station.

47 CFR 74.564 (aural broadcast auxiliary stations) requires that the station license and any other instrument of authorization be posted in the room where the transmitter is located, or if operated by remote control, at the operating position.

47 CFR 74.664 (television broadcast auxiliary stations) requires that the station license and any other instrument of authorization be posted in the room where the transmitter is located.

47 CFR Sections 74.765 (low power TV, TV translator and TV booster) and 47 CFR 74.1265 (FM translator stations and FM booster stations) require that the station license and any other instrument of authorization be retained in the station's files. In addition, the call sign of the station, together with the name, address and telephone number of the licensee or the local representative of the licensee, and the name and address of the person and place where the station records are maintained, shall be displayed at the transmitter site on the structure supporting the transmitting antenna.

47 CFR 74.832(j) (low power auxiliary stations) requires that the license shall be retained in the licensee's files at the address shown on the authorization, posted at the transmitter, or posted at the control point of the station.

OMB Control Number: 3060–0727.

Title: Section 73.213, Grandfathered Short-Spaced Stations.

Form Number(s): Not applicable.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 15 respondents; 15 responses.

Estimated Time per Response: 0.5 hours-0.83 hours.

Frequency of Response: On occasion reporting requirement; Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this information collection is contained in 47 Section 154(i), 55(c)(1), 302 and 303 of the Communications Act of 1934, as amended.

Total Annual Burden: 20 hours.

Total Annual Costs: $3,750.

Privacy Impact Assessment(s): No impact(s).

Needs and Uses: The information collection requirement contained in *47 CFR 73.213* requires licensees of grandfathered short-spaced FM stations seeking to modify or relocate their stations to provide a showing demonstrating that there is no increase in either the total predicted interference area or the associated population (caused or received) with respect to all grandfathered stations or increase the interference caused to any individual stations. Applicants must demonstrate that any new area predicted to lose service as a result of interference has adequate service remaining. In addition, licensees are required to serve a copy of any application for co-channel or first-adjacent channel stations proposing predicted interference caused in any area where interference is not currently predicted to be caused upon the licensee(s) of the affected short-spaced station(s). Commission staff uses the data to determine if the public interest will be served and that existing levels of interference will not be increased to other licensed stations. Providing copies of application(s) to affected licensee(s) will enable potentially affected parties to examine the proposals and provide them an opportunity to file informal objections against such applications.

OMB Control Number: 3060–1154.

Title: Commercial Advertisement Loudness Mitigation (''CALM'') Act; General Waiver Requests.

Form Number: Not applicable.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 20 respondents and 20 responses.

Frequency of Response: On occasion reporting requirement.

Estimated Time per Response: 20 hours.

Total Annual Burden: 400 hours.

Total Annual Cost: $12,000.

Obligation to Respond: Required to obtain benefits. The statutory authority for this collection of information is contained in 47 U.S.C. 151, 152, 154(i), 303(r)and 621.

Nature and Extent of Confidentiality: There is no assurance of confidentiality provided to respondents, but, in accordance with the Commission's rules, 47 CFR 0.459, a station/MVPD may request confidential treatment for financial information supplied with its waiver request.

Privacy Impact Assessment: No impact(s).

Needs and Uses: TV stations and multiple video programming distributors (MVPDs) may file general

waiver requests to request waiver of the rules implementing the CALM Act for good cause. The information obtained by general waiver requests will be used by Commission staff to evaluate whether grant of a waiver would be in the public interest.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2020–17426 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0888; FRS 16989]

Information Collection Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA), the Federal Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

DATES: Written comments should be submitted on or before October 9, 2020. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION: The FCC may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

As part of its continuing effort to reduce paperwork burdens, and as required by the PRA of 1995 (44 U.S.C. 3501–3520), the FCC invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

OMB Control Number: 3060–0888.

Title: Section 1.221, Notice of hearing; appearances; Section 1.229 Motions to enlarge, change, or delete issues; Section 1.248 Prehearing conferences; hearing conferences; Section 76.7, Petition Procedures; Section 76.9, Confidentiality of Proprietary Information; Section 76.61, Dispute Concerning Carriage; Section 76.914, Revocation of Certification; Section 76.1001, Unfair Practices; Section 76.1003, Program Access Proceedings; Section 76.1302, Carriage Agreement Proceedings; Section 76.1513, Open Video Dispute Resolution.

Form Number: Not applicable.

Type of Review: Extension of a currently approved collection.

Respondents: Businesses or other for-profit entities.

Number of Respondents and Responses: 684 respondents; 684 responses.

Estimated Time per Response: 6.4 to 95.4 hours.

Frequency of Response: On occasion reporting requirement; Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Sections 4(i), 4(j), 303(r), 338, 340, 614, 615, 616, 623, 628 and 653 of the Communications Act of 1934, as amended; 47 U.S.C. 154(i) and (j), 303(r), 338, 340, 534, 535, 536, 543, 548 and 573.

Total Annual Burden: 34,816 hours.

Total Annual Cost: $3,690,180.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: A party that wishes to have confidentiality for proprietary information with respect to a submission it is making to the Commission must file a petition pursuant to the pleading requirements in Section 76.7 and use the method described in Sections 0.459 and 76.9 to demonstrate that confidentiality is warranted.

Needs and Uses: Commission rules specify pleading and other procedural requirements for parties filing petitions or complaints under Part 76 of the Commission's rules, including petitions for special relief, cable carriage complaints, program access complaints, and program carriage complaints.

47 CFR 1.221(h) requires that, in a program carriage complaint proceeding filed pursuant to § 76.1302 that the Chief, Media Bureau refers to an administrative law judge for an initial decision, each party, in person or by attorney, shall file a written appearance within five calendar days after the party informs the Chief Administrative Law Judge that it elects not to pursue alternative dispute resolution pursuant to § 76.7(g)(2) or, if the parties have mutually elected to pursue alternative dispute resolution pursuant to § 76.7(g)(2), within five calendar days after the parties inform the Chief Administrative Law Judge that they have failed to resolve their dispute through alternative dispute resolution. The written appearance shall state that the party will appear on the date fixed for hearing and present evidence on the issues specified in the hearing designation order.

47 CFR 1.229(b)(2) requires that, in a program carriage complaint proceeding filed pursuant to § 76.1302 that the Chief, Media Bureau refers to an administrative law judge for an initial decision, a motion to enlarge, change, or delete issues shall be filed within 15 calendar days after the deadline for submitting written appearances pursuant to § 1.221(h), except that persons not named as parties to the proceeding in the designation order may file such motions with their petitions to intervene up to 30 days after publication

of the full text or a summary of the designation order in the **Federal Register**.

47 CFR 1.229(b)(3) provides that any person desiring to file a motion to modify the issues after the expiration of periods specified in paragraphs (a), (b)(1), and (b)(2) of § 1.229, shall set forth the reason why it was not possible to file the motion within the prescribed period.

47 CFR 1.248(a) provides that the initial prehearing conference as directed by the Commission shall be scheduled 30 days after the effective date of the order designating a case for hearing, unless good cause is shown for scheduling such conference at a later date, except that for program carriage complaints filed pursuant to § 76.1302 that the Chief, Media Bureau refers to an administrative law judge for an initial decision, the initial prehearing conference shall be held no later than 10 calendar days after the deadline for submitting written appearances pursuant to § 1.221(h) or within such shorter or longer period as the Commission may allow on motion or notice consistent with the public interest.

47 CFR 1.248(b) provides that the initial prehearing conference as directed by the presiding officer shall be scheduled 30 days after the effective date of the order designating a case for hearing, unless good cause is shown for scheduling such conference at a later date, except that for program carriage complaints filed pursuant to § 76.1302 that the Chief, Media Bureau refers to an administrative law judge for an initial decision, the initial prehearing conference shall be held no later than 10 calendar days after the deadline for submitting written appearances pursuant to § 1.221(h) or within such shorter or longer period as the presiding officer may allow on motion or notice consistent with the public interest.

47 CFR 76.7. Pleadings seeking to initiate FCC action must adhere to the requirements of Section 76.6 (general pleading requirements) and Section 76.7 (initiating pleading requirements). Section 76.7 is used for numerous types of petitions and special relief petitions, including general petitions seeking special relief, waivers, enforcement, show cause, forfeiture and declaratory ruling procedures.

47 CFR 76.7(g)(2) provides that, in a proceeding initiated pursuant to § 76.7 that is referred to an administrative law judge, the parties may elect to resolve the dispute through alternative dispute resolution procedures, or may proceed with an adjudicatory hearing, provided that the election shall be submitted in writing to the Commission and the Chief Administrative Law Judge.

47 CFR 76.9. A party that wishes to have confidentiality for proprietary information with respect to a submission it is making to the FCC must file a petition pursuant to the pleading requirements in Section 76.7 and use the method described in Sections 0.459 and 76.9 to demonstrate that confidentiality is warranted. The petitions filed pursuant to this provision are contained in the existing information collection requirement and are not changed by the rule changes.

47 CFR 76.61(a) permits a local commercial television station or qualified low power television station that is denied carriage or channel positioning or repositioning in accordance with the must-carry rules by a cable operator to file a complaint with the FCC in accordance with the procedures set forth in Section 76.7. Section 76.61(b) permits a qualified local noncommercial educational television station that believes a cable operator has failed to comply with the FCC's signal carriage or channel positioning requirements (Sections 76.56 through 76.57) to file a complaint with the FCC in accordance with the procedures set forth in Section 76.7.

47 CFR 76.61(a)(1) states that whenever a local commercial television station or a qualified low power television station believes that a cable operator has failed to meet its carriage or channel positioning obligations, pursuant to Sections 76.56 and 76.57, such station shall notify the operator, in writing, of the alleged failure and identify its reasons for believing that the cable operator is obligated to carry the signal of such station or position such signal on a particular channel.

47 CFR 76.61(a)(2) states that the cable operator shall, within 30 days of receipt of such written notification, respond in writing to such notification and either commence to carry the signal of such station in accordance with the terms requested or state its reasons for believing that it is not obligated to carry such signal or is in compliance with the channel positioning and repositioning and other requirements of the must-carry rules. If a refusal for carriage is based on the station's distance from the cable system's principal headend, the operator's response shall include the location of such headend. If a cable operator denies carriage on the basis of the failure of the station to deliver a good quality signal at the cable system's principal headend, the cable operator must provide a list of equipment used to make the measurements, the point of measurement and a list and detailed description of the reception and over-the-air signal processing equipment used, including sketches such as block diagrams and a description of the methodology used for processing the signal at issue, in its response.

47 CFR 76.914(c) permits a cable operator seeking revocation of a franchising authority's certification to file a petition with the FCC in accordance with the procedures set forth in Section 76.7.

47 CFR 76.1003(a) permits any multichannel video programming distributor (MVPD) aggrieved by conduct that it believes constitute a violation of the FCC's competitive access to cable programming rules to commence an adjudicatory proceeding at the FCC to obtain enforcement of the rules through the filing of a complaint, which must be filed and responded to in accordance with the procedures specified in Section 76.7, except to the extent such procedures are modified by Section 76.1003.

47 CFR 76.1001(b)(2) permits any multichannel video programming distributor to commence an adjudicatory proceeding by filing a complaint with the Commission alleging that a cable operator, a satellite cable programming vendor in which a cable operator has an attributable interest, or a satellite broadcast programming vendor, has engaged in an unfair act involving terrestrially delivered, cable-affiliated programming, which must be filed and responded to in accordance with the procedures specified in § 76.7, except to the extent such procedures are modified by §§ 76.1001(b)(2) and 76.1003. In program access cases involving terrestrially delivered, cable-affiliated programming, the defendant has 45 days from the date of service of the complaint to file an answer, unless otherwise directed by the Commission. A complainant shall have the burden of proof that the defendant's alleged conduct has the purpose or effect of hindering significantly or preventing the complainant from providing satellite cable programming or satellite broadcast programming to subscribers or consumers; an answer to such a complaint shall set forth the defendant's reasons to support a finding that the complainant has not carried this burden. In addition, a complainant alleging that a terrestrial cable programming vendor has engaged in discrimination shall have the burden of proof that the terrestrial cable programming vendor is wholly owned by, controlled by, or under common control with a cable operator or cable operators, satellite cable programming vendor or vendors in which a cable

operator has an attributable interest, or satellite broadcast programming vendor or vendors; an answer to such a complaint shall set forth the defendant's reasons to support a finding that the complainant has not carried this burden.

47 CFR 76.1003(b) requires any aggrieved MVPD intending to file a complaint under this section to first notify the potential defendant cable operator, and/or the potential defendant satellite cable programming vendor or satellite broadcast programming vendor, that it intends to file a complaint with the Commission based on actions alleged to violate one or more of the provisions contained in Sections 76.1001 or 76.1002 of this part. The notice must be sufficiently detailed so that its recipient(s) can determine the nature of the potential complaint. The potential complainant must allow a minimum of ten (10) days for the potential defendant(s) to respond before filing a complaint with the Commission.

47 CFR 76.1003(c) describes the required contents of a program access complaint, in addition to the requirements of Section 76.7 of this part.

47 CFR 76.1003(c)(3) requires a program access complaint to contain evidence that the complainant competes with the defendant cable operator, or with a multichannel video programming distributor that is a customer of the defendant satellite cable programming or satellite broadcast programming vendor or a terrestrial cable programming vendor alleged to have engaged in conduct described in § 76.1001(b)(1).

47 CFR 76.1003(d) states that, in a case where recovery of damages is sought, the complaint shall contain a clear and unequivocal request for damages and appropriate allegations in support of such claim.

47 CFR 76.1003(e)(1) requires cable operators, satellite cable programming vendors, or satellite broadcast programming vendors whom expressly reference and rely upon a document in asserting a defense to a program access complaint filed or in responding to a material allegation in a program access complaint filed pursuant to Section 76.1003, to include such document or documents, such as contracts for carriage of programming referenced and relied on, as part of the answer. Except as otherwise provided or directed by the Commission, any cable operator, satellite cable programming vendor or satellite broadcast programming vendor upon which a program access complaint is served under this section shall answer within twenty (20) days of service of the complaint, provided that the answer shall be filed within forty-five (45) days of service of the complaint if the complaint alleges a violation of Section 628(b) of the Communications Act of 1934, as amended, or Section 76.1001(a).

47 CFR 76.1003(e)(2) requires an answer to an exclusivity complaint to provide the defendant's reasons for refusing to sell the subject programming to the complainant. In addition, the defendant may submit its programming contracts covering the area specified in the complaint with its answer to refute allegations concerning the existence of an impermissible exclusive contract. If there are no contracts governing the specified area, the defendant shall so certify in its answer. Any contracts submitted pursuant to this provision may be protected as proprietary pursuant to Section 76.9 of this part.

47 CFR 76.1003(e)(3) requires an answer to a discrimination complaint to state the reasons for any differential in prices, terms or conditions between the complainant and its competitor, and to specify the particular justification set forth in Section 76.1002(b) of this part relied upon in support of the differential.

47 CFR 76.1003(e)(4) requires an answer to a complaint alleging an unreasonable refusal to sell programming to state the defendant's reasons for refusing to sell to the complainant, or for refusing to sell to the complainant on the same terms and conditions as complainant's competitor, and to specify why the defendant's actions are not discriminatory.

47 CFR 76.1003(f) provides that, within fifteen (15) days after service of an answer, unless otherwise directed by the Commission, the complainant may file and serve a reply which shall be responsive to matters contained in the answer and shall not contain new matters.

47 CFR 76.1003(g) states that any complaint filed pursuant to this subsection must be filed within one year of the date on which one of three specified events occurs.

47 CFR 76.1003(h) sets forth the remedies that are available for violations of the program access rules, which include the imposition of damages, and/or the establishment of prices, terms, and conditions for the sale of programming to the aggrieved multichannel video programming distributor, as well as sanctions available under title V or any other provision of the Communications Act.

47 CFR 76.1003(j) states in addition to the general pleading and discovery rules contained in § 76.7 of this part, parties to a program access complaint may serve requests for discovery directly on opposing parties, and file a copy of the request with the Commission. The respondent shall have the opportunity to object to any request for documents that are not in its control or relevant to the dispute. Such request shall be heard, and determination made, by the Commission. Until the objection is ruled upon, the obligation to produce the disputed material is suspended. Any party who fails to timely provide discovery requested by the opposing party to which it has not raised an objection as described above, or who fails to respond to a Commission order for discovery material, may be deemed in default and an order may be entered in accordance with the allegations contained in the complaint, or the complaint may be dismissed with prejudice.

47 CFR 76.1003(l) permits a program access complainant seeking renewal of an existing programming contract to file a petition along with its complaint requesting a temporary standstill of the price, terms, and other conditions of the existing programming contract pending resolution of the complaint, to which the defendant will have the opportunity to respond within 10 days of service of the petition, unless otherwise directed by the Commission.

47 CFR 76.1302(a) states that any video programming vendor or multichannel video programming distributor aggrieved by conduct that it believes constitute a violation of the regulations set forth in this subpart may commence an adjudicatory proceeding at the Commission to obtain enforcement of the rules through the filing of a complaint. The complaint shall be filed and responded to in accordance with the procedures specified in Section 76.7, except to the extent such procedures are modified by Section 76.1302.

47 CFR 76.1302(b) states that any aggrieved video programming vendor or multichannel video programming distributor intending to file a complaint under this section must first notify the potential defendant multichannel video programming distributor that it intends to file a complaint with the Commission based on actions alleged to violate one or more of the provisions contained in Section 76.1301 of this part. The notice must be sufficiently detailed so that its recipient(s) can determine the specific nature of the potential complaint. The potential complainant must allow a minimum of ten (10) days for the potential defendant(s) to respond before filing a complaint with the Commission.

47 CFR 76.1302(c) specifies the content of carriage agreement complaints, in addition to the requirements of Section 76.7 of this part.

47 CFR 76.1302(c)(1) provides that a program carriage complaint filed pursuant to § 76.1302 must contain the following: Whether the complainant is a multichannel video programming distributor or video programming vendor, and, in the case of a multichannel video programming distributor, identify the type of multichannel video programming distributor, the address and telephone number of the complainant, what type of multichannel video programming distributor the defendant is, and the address and telephone number of each defendant.

47 CFR 76.1302(d) sets forth the evidence that a program carriage complaint filed pursuant to § 76.1302 must contain in order to establish a prima facie case of a violation of § 76.1301.

47 CFR 76.1302(e)(1) provides that a multichannel video programming distributor upon whom a program carriage complaint filed pursuant to § 76.1302 is served shall answer within sixty (60) days of service of the complaint, unless otherwise directed by the Commission.

47 CFR 76.1302(e)(2) states that an answer to a program carriage complaint shall address the relief requested in the complaint, including legal and documentary support, for such response, and may include an alternative relief proposal without any prejudice to any denials or defenses raised.

47 CFR 76.1302(f) states that within twenty (20) days after service of an answer, unless otherwise directed by the Commission, the complainant may file and serve a reply which shall be responsive to matters contained in the answer and shall not contain new matters.

47 CFR 76.1302(h) states that any complaint filed pursuant to this subsection must be filed within one year of the date on which one of three events occurs.

47 CFR 76.1302(j)(1) states that upon completion of such adjudicatory proceeding, the Commission shall order appropriate remedies, including, if necessary, mandatory carriage of a video programming vendor's programming on defendant's video distribution system, or the establishment of prices, terms, and conditions for the carriage of a video programming vendor's programming.

47 CFR 76.1302(k) permits a program carriage complainant seeking renewal of an existing programming contract to file a petition along with its complaint requesting a temporary standstill of the price, terms, and other conditions of the existing programming contract pending resolution of the complaint, to which the defendant will have the opportunity to respond within 10 days of service of the petition, unless otherwise directed by the Commission. To allow for sufficient time to consider the petition for temporary standstill prior to the expiration of the existing programming contract, the petition for temporary standstill and complaint shall be filed no later than thirty (30) days prior to the expiration of the existing programming contract.

47 CFR 76.1513(a) permits any party aggrieved by conduct that it believes constitute a violation of the FCC's regulations or in section 653 of the Communications Act (47 U.S.C. 573) to commence an adjudicatory proceeding at the Commission to obtain enforcement of the rules through the filing of a complaint, which must be filed and responded to in accordance with the procedures specified in Section 76.7, except to the extent such procedures are modified by Section 76.1513.

47 CFR 76.1513(b) provides that an open video system operator may not provide in its carriage contracts with programming providers that any dispute must be submitted to arbitration, mediation, or any other alternative method for dispute resolution prior to submission of a complaint to the Commission.

47 CFR 76.1513(c) requires that any aggrieved party intending to file a complaint under this section must first notify the potential defendant open video system operator that it intends to file a complaint with the Commission based on actions alleged to violate one or more of the provisions contained in this part or in Section 653 of the Communications Act. The notice must be in writing and must be sufficiently detailed so that its recipient(s) can determine the specific nature of the potential complaint. The potential complainant must allow a minimum of ten (10) days for the potential defendant(s) to respond before filing a complaint with the Commission.

47 CFR 76.1513(d) describes the contents of an open video system complaint.

47 CFR 76.1513(e) addresses answers to open video system complaints.

47 CFR 76.1513(f) states within twenty (20) days after service of an answer, the complainant may file and serve a reply which shall be responsive to matters contained in the answer and shall not contain new matters.

47 CFR 76.1513(g) requires that any complaint filed pursuant to this subsection must be filed within one year of the date on which one of three events occurs.

47 CFR 76.1513(h) states that upon completion of the adjudicatory proceeding, the Commission shall order appropriate remedies, including, if necessary, the requiring carriage, awarding damages to any person denied carriage, or any combination of such sanctions. Such order shall set forth a timetable for compliance, and shall become effective upon release.

Federal Communication Commission.

Marlene Dortch,

Secretary,Office of the Secretary.

[FR Doc. 2020–17427 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0703; FRS 16978]

Information Collection Being Submitted for Review and Approval to Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Pursuant to the Small Business Paperwork Relief Act of 2002, the FCC seeks specific comment on how it can further reduce the information collection burden for small business concerns with fewer than 25 employees.

DATES: Written comments and recommendations for the proposed information collection should be submitted on or before September 9, 2020.

ADDRESSES: Comments should be sent to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. Your comment must be submitted into *www.reginfo.gov* per the above instructions for it to be considered. In addition to submitting in

www.reginfo.gov also send a copy of your comment on the proposed information collection to Cathy Williams, FCC, via email to *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.* Include in the comments the OMB control number as shown in the **SUPPLEMENTARY INFORMATION** below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Cathy Williams at (202) 418–2918. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page *http://www.reginfo.gov/public/do/PRAMain,* (2) look for the section of the web page called ''Currently Under Review,'' (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION: The Commission may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3520), the FCC invited the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Comments are requested concerning: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. Pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4), the FCC seeks specific comment on how it might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.''

OMB Control Number: 3060–0703.

Title: Determining Costs of Regulated Cable Equipment and Installation, FCC Form 1205.

Form Number: FCC Form 1205.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 4,000 respondents; 6,000 responses.

Estimated Time per Response: 4–12 hours.

Frequency of Response: Recordkeeping requirement, Annual reporting requirement, Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Section 301(j) of the Telecommunications Act of 1996 and 623(a)(7) of the Communications Act of 1934, as amended.

Total Annual Burden: 52,000 hours.

Total Annual Cost: $1,800,000.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Needs and Uses: Information derived from FCC Form 1205 filings is used to facilitate the review of equipment and installation rates. This information is then reviewed by each cable system's respective local franchising authority. Section 76.923 records are kept by cable operators in order to demonstrate that charges for the sale and lease of equipment for installation have been developed in accordance with the Commission's rules.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2020–17336 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0249, OMB 3060–0573; FRS 16988]

Information Collections Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA), the Federal Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

DATES: Written comments should be submitted on or before October 9, 2020. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION: The FCC may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number. As part of its continuing effort to reduce paperwork burdens, and as required by the PRA of 1995 (44 U.S.C. 3501–3520), the FCC invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize

the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

OMB Control Number: 3060–0249.

Title: Sections 74.781, 74.1281 and 78.69, Station Records.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business and other for-profit entities; not-for-profit institutions; State, Federal or Tribal Governments.

Number of Respondents and Responses: 13,811 respondents; 20,724 responses.

Estimated Time per Response: .375 hour-1 hour.

Frequency of Response: Recordkeeping requirement.

Total Annual Burden: 11,726 hours.

Total Annual Cost: $8,295,600.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this collection of information is contained in Section 154(i) of the Communications Act of 1934, as amended.

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Privacy Impact Assessment(s): No impact(s).

Needs and Uses: The information collection requirements contained in this collection are as follows:

47 CFR 74.781 information collection requirements include the following: (a) The licensee of a low power TV, TV translator, or TV booster station shall maintain adequate station records, including the current instrument of authorization, official correspondence with the FCC, contracts, permission for rebroadcasts, and other pertinent documents.

(b) Entries required by § 17.49 of this Chapter concerning any observed or otherwise known extinguishment or improper functioning of a tower light: (1) The nature of such extinguishment or improper functioning. (2) The date and time the extinguishment or improper operation was observed or otherwise noted. (3) The date, time and nature of adjustments, repairs or replacements made.

(c) The station records shall be maintained for inspection at a residence, office, or public building, place of business, or other suitable place, in one of the communities of license of the translator or booster, except that the station records of a booster or translator licensed to the licensee of the primary station may be kept at the same place where the primary station records are kept. The name of the person keeping station records, together with the address of the place where the records are kept, shall be posted in accordance with § 74.765(c) of the rules. The station records shall be made available upon request to any authorized representative of the Commission.

(d) Station logs and records shall be retained for a period of two years.

47 CFR 74.1281 information collection requirements include the following: (a) The licensee of a station authorized under this Subpart shall maintain adequate station records, including the current instrument of authorization, official correspondence with the FCC, maintenance records, contracts, permission for rebroadcasts, and other pertinent documents.

(b) Entries required by § 17.49 of this chapter concerning any observed or otherwise known extinguishment or improper functioning of a tower light:

(1) The nature of such extinguishment or improper functioning.

(2) The date and time the extinguishment of improper operation was observed or otherwise noted.

(3) The date, time and nature of adjustments, repairs or replacements made.

(c) The station records shall be maintained for inspection at a residence, office, or public building, place of business, or other suitable place, in one of the communities of license of the translator or booster, except that the station records of a booster or translator licensed to the licensee of the primary station may be kept at the same place where the primary station records are kept. The name of the person keeping station records, together with the address of the place where the records are kept, shall be posted in accordance with § 74.1265(b) of the rules. The station records shall be made available upon request to any authorized representative of the Commission.

(d) Station logs and records shall be retained for a period of two years.

47 CFR 78.69 requires each licensee of a CARS station shall maintain records showing the following:

(a) For all attended or remotely controlled stations, the date and time of the beginning and end of each period of transmission of each channel;

(b) For all stations, the date and time of any unscheduled interruptions to the transmissions of the station, the duration of such interruptions, and the causes thereof;

(c) For all stations, the results and dates of the frequency measurements made pursuant to § 78.113 and the name of the person or persons making the measurements;

(d) For all stations, when service or maintenance duties are performed, which may affect a station's proper operation, the responsible operator shall sign and date an entry in the station's records, giving:

(1) Pertinent details of all transmitter adjustments performed by the operator or under the operator's supervision.

(e) When a station in this service has an antenna structure which is required to be illuminated, appropriate entries shall be made as follows:

(1) The time the tower lights are turned on and off each day, if manually controlled.

(2) The time the daily check of proper operation of the tower lights was made, if an automatic alarm system is not employed.

(3) In the event of any observed or otherwise known failure of a tower light:

(i) Nature of such failure.

(ii) Date and time the failure was observed or otherwise noted.

(iii) Date, time, and nature of the adjustments, repairs, or replacements made.

(iv) Identification of Flight Service Station (Federal Aviation Administration) notified of the failure of any code or rotating beacon light not corrected within 30 minutes, and the date and time such notice was given.

(v) Date and time notice was given to the Flight Service Station (Federal Aviation Administration) that the required illumination was resumed.

(4) Upon completion of the 3-month periodic inspection required by § 78.63(c):

(i) The date of the inspection and the condition of all tower lights and associated tower lighting control devices, indicators, and alarm systems.

(ii) Any adjustments, replacements, or repairs made to insure compliance with the lighting requirements and the date such adjustments, replacements, or repairs were made.

(f) For all stations, station record entries shall be made in an orderly and legible manner by the person or persons competent to do so, having actual knowledge of the facts required, who shall sign the station record when starting duty and again when going off duty.

(g) For all stations, no station record or portion thereof shall be erased, obliterated, or willfully destroyed within the period of retention required by rule. Any necessary correction may

be made only by the person who made the original entry who shall strike out the erroneous portion, initial the correction made, and show the date the correction was made.

(h) For all stations, station records shall be retained for a period of not less than 2 years. The Commission reserves the right to order retention of station records for a longer period of time. In cases where the licensee or permittee has notice of any claim or complaint, the station record shall be retained until such claim or complaint has been fully satisfied or until the same has been barred by statute limiting the time for filing of suits upon such claims.

OMB Control Number: 3060–0573.

Title: Application for Franchise Authority Consent to Assignment or Transfer of Control of Cable Television Franchise, FCC Form 394.

Form Number: FCC Form 394.

Type of Review: Extension of a currently approved collection.

Respondents: Business of other for-profit entities; State, Local or Tribal Government.

Number of Respondents and Responses: 2,000 respondents; 1,000 responses.

Estimated Time per Response: 1–5 hours.

Frequency of Response: Third Party Disclosure Requirement.

Total Annual Burden: 7,000 hours.

Total Annual Costs: $750,000.

Privacy Impact Assessment(s): No impact(s).

Needs and Uses: FCC Form 394 is a standardized form that is completed by cable operators in connection with the assignment and transfer of control of cable television systems. On July 23, 1993, the Commission released a Report and Order and Further Notice of Proposed Rulemaking in MM Docket No. 92–264, FCC 93–332, Implementation of Sections 11 and 13 of the Cable Television Consumer Protection and Competition Act of 1992, Horizontal and Vertical Ownership Limits, Cross-Ownership Limitations and Anti-Trafficking Provisions. Among other things, this Report and Order established procedures for use of the FCC Form 394.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2020–17428 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–XXX, OMB 3060–1204; FRS 16985]

Information Collections Being Submitted for Review and Approval to Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Pursuant to the Small Business Paperwork Relief Act of 2002, the FCC seeks specific comment on how it might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.'' The Commission may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written comments and recommendations for the proposed information collection should be submitted on or before September 9, 2020.

ADDRESSES: Comments should be sent to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. Your comment must be submitted into *www.reginfo.gov* per the above instructions for it to be considered. In addition to submitting in *www.reginfo.gov* also send a copy of your comment on the proposed information collection to Nicole Ongele, FCC, via email to *PRA@fcc.gov* and to *Nicole.Ongele@fcc.gov.* Include in the comments the OMB control number as shown in the **SUPPLEMENTARY INFORMATION** below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Nicole Ongele at (202) 418–2991. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page *http://www.reginfo.gov/public/do/PRAMain,* (2) look for the section of the web page called ''Currently Under Review,'' (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION: As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3520), the FCC invited the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Comments are requested concerning: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. Pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4), the FCC seeks specific comment on how it might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.''

OMB Control Number: 3060–XXXX.

Title: Alaska Plan End of Term Commitments.

Form Number: N/A.

Type of Review: New information collection. Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 21 respondents; 21 responses.

Estimated Time per Response: 10 hours.

Frequency of Response: One-time reporting requirement.

Obligation to Respond: Required to retain benefits. Statutory authority for this information collection is contained in 47 U.S.C. 151, 152, 154(i), 155, 201–206, 214, 218–220, 251, 252, 254, 256, 303(r), 332, 403, and 1302.

Total Annual Burden: 210 hours.

Total Annual Cost: No Cost. Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: For this information request, parties may submit confidential information. Requests for confidentiality may be submitted to the Commission to be withheld from public inspection under 47 C FR 0.459 of the FCC's rules.

Needs and Uses: The Commission is requesting the Office of Management and Budget (OMB) approval for this new information collection. On August 23, 2016, the Commission adopted the *Alaska Plan Order. See Connect America Fund et al.,* WC Docket Nos. 10–90, 16–271, WT Docket No. 10–208, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139 (2016) (*Alaska Plan Order*). In that order, the Commission adopted a plan for providing Alaskan rate-of-return carriers and competitive Eligible Telecommunications Carriers (ETCs) the option to obtain a fixed level of funding for a defined term in exchange for committing to deployment obligations that are tailored to each Alaskan carrier's circumstances. A requirement adopted in the *Alaska Plan Order* requires that participating carriers update their end-of-term commitments no later than the end of the fourth year of support, *i.e.,* by December 31, 2020. The purpose of this information collection is to collect from the participating carriers their updated end-of-term commitments and addresses the burdens associated with that requirement.

OMB Control Number: 3060–1204.

Title: Deployment of Text-to-911.

Form Number: N/A.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other-for profit, State, Local, or Tribal government.

Number of Respondents and Responses: 3,882 respondents; 52,963 responses.

Estimated Time per Response: 1–8 hours.

Frequency of Response: One-time; annual reporting requirements and third-party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for these collections is contained in 47 U.S.C. 151, 152, 154(i), 154(j), 154(o), 251(e), 303(b), 303(g), 303(r), 316, and 403.

Total Annual Burden: 76,766 hours.

Total Annual Cost: No Cost.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality with this collection of information.

Needs and Uses: Deployment of Text-to-911. In a Second Report and Order released on August 13, 2014, FCC 14–118, published at 79 FR 55367, September 16, 2014, the Commission adopted final rules—containing information collection requirements—to enable the Commission to implement text-to-911 service. The text-to-911 rules provide enhanced access to emergency services for people with disabilities and fulfilling a crucial role as an alternative means of emergency communication for the general public in situations where sending a text message to 911 as opposed to placing a voice call could be vital to the caller's safety. The Second Report and Order adopted rules to commence the implementation of text-to-911 service with an initial deadline of December 31, 2014 for all covered text providers to be capable of supporting text-to-911 service. The Second Report and Order also provided that covered text providers would then have a six-month implementation period. They must begin routing all 911 text messages to a Public Safety Answering Point (PSAP) by June 30, 2015 or within six months of a valid PSAP request for text-to-911 service, whichever is later. To implement these requirements, the Commission seeks to collect information primarily for a database in which PSAPs voluntarily register that they are technically ready to receive text messages to 911. As PSAPs become text-ready, they may either register in the PSAP database (or submit a notification to PS Docket Nos. 10–255 and 11–153), or provide other written notification reasonably acceptable to a covered text messaging provider. Either measure taken by the PSAP constitutes sufficient notification pursuant to the rules in the Second Report and Order. PSAPs and covered text providers may also agree to an alternative implementation timeframe (other than six months). Covered text providers must notify the FCC of the dates and terms of any such alternate timeframe within 30 days of the parties' agreement. Additionally, the rules adopted by the Second Report and Order include other information collections for third party notifications necessary for the implementation of text-to-911, including notifications to consumers, covered text providers, and the Commission. These notifications are essential to ensure that all affected parties are aware of the limitations, capabilities, and status of text-to-911 services. These information collections enable the Commission to meet the objectives for implementation of text-to-911 service and for compliance by covered text providers with the six-month implementation period in furtherance of the Commission's core mission to ensure the public's safety.

Real Time Text. In a Report and Order and Further Notice of Proposed Rulemaking, released on December 16, 2016, in CG Docket No. 16–145 and GN Docket No. 15–178, the Commission amended its rules to facilitate a transition from text telephone (TTY) technology to RTT as a reliable and interoperable universal text solution over wireless internet protocol (IP) enabled networks for people who are deaf, hard of hearing, deaf-blind, or have a speech disability. Section 9.10(c) of the rules requires Commercial Mobile Radio Service (CMRS) providers to be ''capable of transmitting 911 calls from individuals with speech or hearing disabilities through means other than mobile radio handsets, *e.g.,* through the use of [TTY devices].'' Additionally, ''CMRS providers that provide voice communications over IP facilities are not required to support 911 access via TTYs if they provide 911 access via [RTT] communications, in accordance with 47 CFR part 67, except that RTT support is not required to the extent that it is not achievable for a particular manufacturer to support RTT on the provider's network.'' Section 9.10(c). The Commission's Report and Order provides that once a PSAP is so capable, the requested service provider must begin delivering RTT communications in an RTT format within six months after a valid request is made—to the extent the provider has selected RTT as its accessible text communication method.

Dispatchable Location. Section 506 of RAY BAUM'S Act requires the Commission to ''consider adopting rules to ensure that the dispatchable location is conveyed with a 9-1-1 call, regardless of the technological platform used [. . .].'' In a Report and Order released on August 2019, in PS Docket Nos. 18–261 and 17–239 and GN Docket No. 11–117, the Commission amended its rules to implement Kari's Law and Section 506 of RAY BAUM'S Act. Specifically, for mobile text, the Commission adopted Section 9.10(q)(10)(v) to provide that no later than January 6, 2022, covered text providers must provide the following location information with all 911 text messages routed to a PSAP:

Automated dispatchable location, if technically feasible; otherwise, either end-user manual provision of location information, or enhanced location information, which may be coordinate-based, consisting of the best available location that can be obtained from any

available technology or combination of technologies at reasonable cost.

47 CFR 20.18 renumbered as 47 CFR 9.10. Additionally, the Commission renumbered Section 20.18 as new Section 9.10. Accordingly, we update the references to Section 20.18 with Section 9.10 in this supporting statement.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2020–17425 Filed 8–7–20; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL MARITIME COMMISSION

Notice of Agreements Filed

The Commission hereby gives notice of the filing of the following agreements under the Shipping Act of 1984. Interested parties may submit comments, relevant information, or documents regarding the agreements to the Secretary by email at *Secretary@fmc.gov,* or by mail, Federal Maritime Commission, Washington, DC 20573. Comments will be most helpful to the Commission if received within 12 days of the date this notice appears in the **Federal Register**. Copies of agreements are available through the Commission's website (*www.fmc.gov*) or by contacting the Office of Agreements at (202)-523–5793 or *tradeanalysis@fmc.gov.*

Agreement No.: 011962–016.

Agreement Name: Consolidated Chassis Management Pool Agreement.

Parties: Maersk A/S and Hamburg Sud (acting as a single party); CMA CGM S.A., APL Co. Pte. Ltd.; and American President Lines, Ltd. (acting as a single party); COSCO SHIPPING Lines Co., Ltd.; Evergreen Line Joint Service Agreement; Ocean Network Express Pte. Ltd.; Hapag Lloyd AG and Hapag Lloyd USA (acting as a single party); HMM Co., Ltd.; OOCL (USA) Inc.; MSC Mediterranean Shipping Co., S.A.; Zim Integrated Shipping Services Ltd.; Matson Navigation Company; Westwood Shipping Lines; and Yang Ming Marine Transport Corp.

Filing Party: Jeffrey Lawrence and Donald Kassilke; Cozen O'Connor.

Synopsis: The Amendment reflects changes to the name of Maersk Line A/S; Mediterranean Shipping Company S.A.; and Hyundai Merchant Marine Co., Ltd.

Proposed Effective Date: 7/28/2020.

Location: https://www2.fmc.gov/FMC.Agreements.Web/Public/AgreementHistory/454.

Dated: August 4, 2020.

Rachel Dickon,

Secretary.

[FR Doc. 2020–17342 Filed 8–7–20; 8:45 am]

BILLING CODE 6730–02–P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisitions of Shares of a Bank or Bank Holding Company

The notificants listed below have applied under the Change in Bank Control Act (Act) (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire shares of a bank or bank holding company. The factors that are considered in acting on the applications are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The public portions of the applications listed below, as well as other related filings required by the Board, if any, are available for immediate inspection at the Federal Reserve Bank(s) indicated below and at the offices of the Board of Governors. This information may also be obtained on an expedited basis, upon request, by contacting the appropriate Federal Reserve Bank and from the Board's Freedom of Information Office at *https://www.federalreserve.gov/foia/request.htm.* Interested persons may express their views in writing on the standards enumerated in paragraph 7 of the Act.

Comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors, Ann E. Misback, Secretary of the Board, 20th Street and Constitution Avenue NW, Washington DC 20551–0001, not later than August 24, 2020.

A. Federal Reserve Bank of Atlanta (Kathryn Haney, Assistant Vice President) 1000 Peachtree Street NE, Atlanta, Georgia 30309. Comments can also be sent electronically to *Applications.Comments@atl.frb.org*:

1. *The Vanguard Group, Inc., and its subsidiaries and affiliates, Malvern, Pennsylvania;* to acquire additional voting shares of Raymond James Financial, Inc., and thereby, indirectly acquire additional voting shares of Raymond James Bank, NA, both of St. Petersburg, Florida.

B. Federal Reserve Bank of San Francisco (Sebastian Astrada, Director, Applications) 101 Market Street, San Francisco, California 94105–1579:

1. *Kerry J. Fairchild, Tulalip, Washington; Fairchild Marital Trust and Fairchild WA Exemption Trust, Kerry J. Fairchild, trustee for both trusts; and Heidi M. Fassett and Jonathon E. Fassett, both of Selah, Washington;* as a group acting in concert to retain voting shares of Pacific Crest Bancorp, Inc., and thereby, indirectly retain voting shares of Pacific Crest Savings Bank, both of Lynnwood, Washington.

Board of Governors of the Federal Reserve System, August 5, 2020.

Yao-Chin Chao,

Assistant Secretary of the Board.

[FR Doc. 2020–17411 Filed 8–7–20; 8:45 am]

BILLING CODE P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[Document Identifier CMS–10156, CMS–10170, CMS–10110 and CMS–10488]

Agency Information Collection Activities: Submission for OMB Review; Comment Request

AGENCY: Centers for Medicare & Medicaid Services, HHS.

ACTION: Notice.

SUMMARY: The Centers for Medicare & Medicaid Services (CMS) is announcing an opportunity for the public to comment on CMS' intention to collect information from the public. Under the Paperwork Reduction Act of 1995 (PRA), federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, and to allow a second opportunity for public comment on the notice. Interested persons are invited to send comments regarding the burden estimate or any other aspect of this collection of information, including the necessity and utility of the proposed information collection for the proper performance of the agency's functions, the accuracy of the estimated burden, ways to enhance the quality, utility, and clarity of the information to be collected, and the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

DATES: Comments on the collection(s) of information must be received by the OMB desk officer by *September 9, 2020.*

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain* . Find this particular

information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

To obtain copies of a supporting statement and any related forms for the proposed collection(s) summarized in this notice, you may make your request using one of following:

1. Access CMS' website address at website address at *https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing.html.*

1. Email your request, including your address, phone number, OMB number, and CMS document identifier, to *Paperwork@cms.hhs.gov.*

2. Call the Reports Clearance Office at (410) 786–1326.

FOR FURTHER INFORMATION CONTACT: William Parham at (410) 786–4669.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. The term ''collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires federal agencies to publish a 30-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, CMS is publishing this notice that summarizes the following proposed collection(s) of information for public comment:

1. *Type of Information Collection Request:* Reinstatement without change of a currently approved collection; *Title of Information Collection:* Retiree Drug Subsidy (RDS) Application and Instructions; *Use:* Under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 and implementing regulations at 42 CFR part 423 subpart R plan sponsors (*e.g.,* employers, unions) who offer prescription drug coverage to their qualified covered retirees are eligible to receive a 28% subsidy for allowable drug costs. In order to qualify, plan sponsors must submit a complete application to the Centers for Medicare & Medicaid Services (CMS) with a list of retirees for whom it intends to collect the subsidy. Once CMS reviews and analyzes the information on the application and the retiree list, notification will be sent to the plan sponsor about its eligibility to participate in the Retiree Drug Subsidy (RDS) Program.

CMS has contracted with an outside vendor to assist in the administration of the RDS program; this effort is called the RDS Center. Plan Sponsors will apply on-line for the retiree drug subsidy by logging on to the RDS Secure website. 42 CFR 423.844 describes the requirement for qualified retiree prescription drug plans who want to receive the retiree drug subsidy. Once the Plan Sponsor submits the RDS application via the RDS Secure website (and a valid initial retiree list) CMS, through the use of its contractor, will analyze the application to determine whether the Plan Sponsor qualifies for the RDS. To qualify for the subsidy, the Plan Sponsor must show that its coverage is as generous as, or more generous than, the defined standard coverage under the Medicare Part D prescription drug benefit. *Form Number:* CMS–10156 (OMB control number: 0938–0957); *Frequency:* Yearly; *Affected Public:* Private Sector, Business or other for-profits, Not-for-profits institutions; *Number of Respondents:* 1,803; *Total Annual Responses:* 1,803; *Total Annual Hours:* 115,392. (For policy questions regarding this collection contact Ivan Iveljic at 410–786–3312.)

2. *Type of Information Collection Request:* Reinstatement without change of a currently approved collection; *Title of Information Collection:* Retiree Drug Subsidy Payment Request and Instructions; *Use:* Under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 and implementing regulations at 42 CFR part 423 subpart R plan sponsors (*e.g.,* employers, unions) who offer prescription drug coverage to their qualified covered retirees are eligible to receive a 28% subsidy for allowable drug costs. In order to qualify, plan sponsors must submit a complete application to the Centers for Medicare & Medicaid Services (CMS) with a list of retirees for whom it intends to collect the subsidy. Once CMS reviews and analyzes the information on the application and the retiree list, notification will be sent to the plan sponsor about its eligibility to participate in the Retiree Drug Subsidy (RDS) Program. *Form Number:* CMS–10170 (OMB control number: 0938–0977); *Frequency:* Yearly; *Affected Public:* State, Local, or Tribal Governments; *Number of Respondents:* 1,803; *Total Annual Responses:* 1,803; *Total Annual Hours:* 115,392. (For policy questions regarding this collection contact Ivan Iveljic at 410) 786–3312.)

3. *Type of Information Collection Request:* Revision with change of a currently approved collection; *Title of Information Collection:* Manufacturer Submission of Average Sales Price (ASP) Data for Medicare Part B Drugs and Biologicals; *Use:* Section 1847A of the Act requires that the Medicare Part B payment amounts for covered drugs and biologicals not paid on a cost or prospective payment basis be based upon manufacturers' average sales price data submitted quarterly to the Centers for Medicare & Medicaid Services (CMS). The reporting requirements are specified in 42 CFR part 414 Subpart J.

The Division of Ambulatory Services (DAS), will utilize the ASP data (ASP and number of units sold as specific in section 1847A of the Act) to determine the Medicare Part B drug payment amounts for CY 2005 and beyond. The manufacturers submit their ASP data for all of their NDCs for Part B drugs. DAS compiles the data, analyzes the data and runs the data through software to calculate the volume-weighted ASP for all of the NDCs that are grouped within a given HCPCS code. The formula to calculate the volume-weighted ASP is the Sum (ASP * units) for all NDCs/Sum (units * bill units per pkg) for all NDCs. DAS provides ASP payment amounts for several components within CMS that utilize 1847(A) payment methodologies to implement various payment policies including, but not limited to, ESRD, OPPS, OTP and payment models. The Department of Health and Human Services' Office of the Inspector General also uses the ASP data in conducting statutorily mandated studies. *Form Number:* CMS–10110 (OMB control number: 0938–0921); *Frequency:* Quarterly; *Affected Public:* State, Local, or Tribal Governments; *Number of Respondents:* 300; *Total Annual Responses:* 1,200; *Total Annual Hours:* 15,600. (For policy questions regarding this collection contact Felicia Eggleston at 410 786–9287.)

4. *Type of Information Collection Request:* Extension of a currently approved collection; *Title of Information Collection:* Consumer Experience Survey Data Collection; *Use:* Section 1311(c)(4) of the Affordable Care Act requires the Department of Health and Human Services (HHS) to develop an enrollee satisfaction survey system that assesses consumer experience with qualified health plans (QHPs) offered through an Exchange. It also requires public display of enrollee satisfaction information by the

Exchange to allow individuals to easily compare enrollee satisfaction levels between comparable plans. HHS established the QHP Enrollee Experience Survey (QHP Enrollee Survey) to assess consumer experience with the QHPs offered through the Marketplaces. The survey includes topics to assess consumer experience with the health care system such as communication skills of providers and ease of access to health care services. CMS developed the survey using the Consumer Assessment of Health Providers and Systems (CAHPS®) principles (*https://www.ahrq.gov/cahps/about-cahps/principles/index.html*) and established an application and approval process for survey vendors who want to participate in collecting QHP enrollee experience data.

The QHP Enrollee Survey, which is based on the CAHPS® Health Plan Survey, will be used to (1) help consumers choose among competing health plans, (2) provide actionable information that the QHPs can use to improve performance, (3) provide information that regulatory and accreditation organizations can use to regulate and accredit plans, and (4) provide a longitudinal database for consumer research. Based on the requirements for the QHP Enrollee Survey, CMS developed this survey to capture information about enrollees' experience with QHPs offered through an Exchange. CMS conducted in-depth formative research including: a comprehensive literature review, review of existing CMS survey instruments, consumer focus groups, stakeholder discussions, and input from a Technical Expert Panel (TEP). CMS performed a psychometric test and beta test in 2014 and 2015, respectively. CMS began fielding the QHP Enrollee Survey nationwide in 2016 and this request is to continue nationwide collection and administration of the statutorily-required survey in 2021 through 2023. These activities are necessary to ensure that CMS fulfills legislative mandates established by section 1311(c)(4) of the Affordable Care Act to develop an ''enrollee satisfaction survey system'' and provide such information on Exchange websites. *Form Number:* CMS–10488 (0938–1221): *Frequency:* Annually: *Affected Public:* Public sector (Individuals and Households), Private sector (Business or other for-profits and Not-for-profit institutions): *Number of Respondents:* 285; *Total Annual Responses:* 82,510; *Total Annual Hours:* 16,517. For policy questions regarding this collection contact Nidhi Singh Shah at 301–492–5110.

Dated: August 5, 2020.

William N. Parham, III,

Director, Paperwork Reduction Staff, Office of Strategic Operations and Regulatory Affairs.

[FR Doc. 2020–17417 Filed 8–7–20; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[CMS–1755–N]

Medicare Program; Announcement of the Advisory Panel on Hospital Outpatient Payment Meeting

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Notice of meeting.

SUMMARY: This notice announces a virtual meeting of the Advisory Panel on Hospital Outpatient Payment (the Panel) for 2020. In addition, this notice announces four new membership appointments to the Panel. The purpose of the Panel is to advise the Secretary of the Department of Health and Human Services and the Administrator of the Centers for Medicare & Medicaid Services concerning the clinical integrity of the Ambulatory Payment Classification groups and their associated weights, and supervision of hospital outpatient therapeutic services. The advice provided by the Panel will be considered as we prepare the annual updates for the hospital outpatient prospective payment system.

DATES: *Meeting date:* The virtual meeting of the Panel is scheduled for Monday, August 31, 2020, from 9:30 a.m. to 5 p.m. Eastern Daylight Time (EDT). The times listed in this notice are EDT and are approximate times. Consequently, the meetings may last longer or be shorter than the times listed in this notice, but will not begin before the posted times:

Deadline for presentations and comment letters: Presentations or comment letters, and form CMS–20017 (located at *http://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/downloads/cms20017.pdf*), must be received by 5 p.m. EDT, Friday, August 14, 2020.

Please note that form CMS–20017 must accompany each presentation or comment letter submission. Presentations and comment letters that are not received by the due date and time, or that do not include a completed form CMS–20017 are considered late or incomplete, and cannot be included on the agenda. In commenting, refer to file code CMS–1755–N.

Meeting Registration Timeframe: All presentation or comment letter speakers, including any alternates, with items on the agenda must register electronically to our Panel mailbox, *APCPanel@cms.hhs.gov* no later than 5pm EDT, Friday, August 14, 2020.

The subject of the email should state ''Agenda Speaker Registration for HOP Panel Meeting.'' In the email, all of the following information must be submitted when registering:

- Speaker name.
- Speaker's organization or company name.
- Company or organization that the speaker is representing that submitted a presentation or comment letter that is on the agenda.
- Email addresses to which materials regarding meeting registration and instructions on connecting to the meeting should be sent.
- Registration details may not be revised once they are submitted. If registration details require changes, a new registration entry must be submitted by August 14, 2020. In addition, registration information must reflect individual-level content and not reflect an organization entry. Also, each individual may only register one person at a time. That is, one individual may not register multiple individuals at the same time.
- A confirmation email will be sent upon receipt of the registration. The email will provide information to the speaker in preparation for the meeting.
- Registration is only required for agenda speakers and alternates and must be submitted by the deadline specified above. We note that no registration is required for participants who plan to view the Panel meeting via webinar or listen via teleconference.

ADDRESSES: *Meeting location and webinar:* The meeting will be held virtually. The public may participate in this meeting via webinar, or listen-only via teleconference. Closed captioning will be available on the webinar. Teleconference dial-in and webinar information will appear on the final meeting agenda, which will be posted on our website when available at: *https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/AdvisoryPanelonAmbulatoryPaymentClassificationGroups.*

News media: Press inquiries are handled through the CMS Press Office at (202) 690–6145.

Advisory committees information line: The telephone number for the Advisory Panel on Hospital Outpatient Payment Committee Hotline is (410) 786–3985.

Websites: For additional information on the Panel, including the Panel charter, and updates to the Panel's activities, we refer readers to view our website at: *https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/AdvisoryPanelonAmbulatoryPaymentClassificationGroups.* Information about the Panel and its membership in the Federal Advisory Committee Act database are also located at: *https://www.facadatabase.gov.*

FOR FURTHER INFORMATION CONTACT: Elise Barringer, Designated Federal Official (DFO) (410) 786–9222, email at *APCPanel@cms.hhs.gov.* Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Mail Stop: C4–04–25, Baltimore, MD 21244–1850.

SUPPLEMENTARY INFORMATION:

I. Background

The Secretary of the Department of Health and Human Services (the Secretary) is required by section 1833(t)(9)(A) of the Social Security Act and is allowed by section 222 of the Public Health Service Act to consult with an expert outside panel, such as the Advisory Panel on Hospital Outpatient Payment (the Panel), regarding the clinical integrity of the Ambulatory Payment Classification (APC) groups and relative payment weights. The Panel is governed by the provisions of the Federal Advisory Committee Act (Pub. L. 92–463), as amended (5 U.S.C. Appendix 2), to set forth standards for the formation and use of advisory panels. We consider the technical advice provided by the Panel as we prepare the proposed and final rules to update the Hospital Outpatient Prospective Payment System (OPPS) for the following calendar year.

II. Meeting Agenda

The agenda for the August 31, 2020 Panel meeting will provide for discussion and comment on the following topics as designated in the Panel's Charter:

- Addressing whether procedures within an APC group are similar both clinically and in terms of resource use.
- Reconfiguring APCs.
- Evaluating APC group weights.
- Reviewing packaging the cost of items and services, including drugs and devices, into procedures and services, including the methodology for packaging and the impact of packaging the cost of those items and services on APC group structure and payment. Removing procedures from the inpatient list for payment under the OPPS.
- Using claims and cost report data for Centers for Medicare & Medicaid Services (CMS) determination of APC group costs.
- Addressing other technical issues concerning APC group structure.
- Evaluating the required level of supervision for hospital outpatient services.
- OPPS APC rates for covered Ambulatory Surgical Center (ASC) procedures.

The Agenda will be posted on our website at: *https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/AdvisoryPanelonAmbulatoryPaymentClassificationGroups.html* approximately 1 week before the meeting.

Meeting Information Updates

The actual meeting hours and days will be posted in the agenda. As information and updates regarding this webinar and listen-only teleconference, including the agenda, become available, they will be posted to our website at: *https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/AdvisoryPanelonAmbulatoryPaymentClassificationGroups.*

III. Presentations and Comment Letters

The subject matter of any presentation and comment letter must be within the scope of the Panel designated in the Charter. Any presentations or comments outside of the scope of the Panel will be returned or requested for amendment. Unrelated topics include, but are not limited to; the conversion factor, charge compression, revisions to the cost report, pass-through payments, correct coding, new technology applications (including supporting information/documentation), provider payment adjustments, supervision of hospital outpatient diagnostic services, and the types of practitioners that are permitted to supervise hospital outpatient services. The Panel may not recommend that services be designated as nonsurgical extended duration therapeutic services. Presentations or Comment Letters that address OPPS APC rates as they relate to covered ASC procedures are within the scope of the panel, however, ASC payment rates, ASC payment indicators, the ASC covered procedures list, or other ASC payment system matters will be considered out of scope.

The Panel may use data collected or developed by entities and organizations other than Department of Health and Human Services and CMS in conducting its review. We recommend organizations submit data for CMS staff and the Panel's review.

All presentations are limited to 5 minutes, regardless of the number of individuals or organizations represented by a single presentation. Presenters may use their 5 minutes to represent either one or more agenda items.

Section 508 Compliance

For this meeting, we are aiming to have all presentations and comment letters available on our website. Materials on our website must be Section 508 compliant to ensure access to federal employees and members of the public with and without disabilities. We encourage presenters and commenters to reference the guidance on making documents section 508 compliant as they draft their submissions, and, whenever possible, to submit their presentations and comment letters in a 508 compliant form. Such guidance is available at: *http://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/Section508/508-Compliant-doc.html.* We will review presentations and comment letters for 508 compliance and place compliant materials on our website. As resources permit, we will also convert non-compliant submissions to 508 compliant forms and offer assistance to submitters who are making their submissions 508 compliant. All 508 compliant presentations and comment letters will be made available on the CMS website. If difficulties are encountered accessing the materials, please contact the Designated Federal Official (DFO) (the DFO's address, email, and phone number are provided in the **FOR FURTHER INFORMATION CONTACT** section of this notice).

In order to consider presentations and/or comment letters, we will need to receive the following:

1. *An email* copy of the presentation or comment letters sent to the DFO mailbox, *APCPanel@cms.hhs.gov.*

2. Form *CMS–20017* with complete contact information that includes name, address, phone number, and email addresses for all presenters, comment letters, and a contact person who can answer any questions, and provide revisions that are requested, for the presentation or comment letter. Presenters and commenter letters must clearly explain the actions that they are requesting CMS to take in the appropriate section of the form. A presenter or commenter's relationship with the organization that they represent must also be clearly listed.

• The form is available through the CMS Forms website at: *https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/downloads/cms20017.pdf.*

• We encourage submitters to make efforts to ensure that their presentations and comment letters are 508 compliant.

IV. Formal Presentations

In addition to formal presentations (limited to 5 minutes total per presentation), there will be an opportunity during the meeting for public comments as time permits (limited to 1 minute for each individual and a total of 3 minutes per organization).

V. Panel Recommendations and Discussions

The Panel's recommendations at any Panel meeting generally are not final until they have been reviewed and approved by the Panel on the last day of the meeting, before the final adjournment. These recommendations will be posted to our website after the meeting.

VI. Membership Appointments to the Advisory Panel on Hospital Outpatient Payment

The Panel Charter provides that the Panel shall meet up to 3 times annually. We consider the technical advice provided by the Panel as we prepare the proposed and final rules to update the OPPS for the following calendar year.

The Panel shall consist of a chair and up to 15 members who are full-time employees of hospitals, hospital systems, or other Medicare providers that are subject to the OPPS. The panel may also include a representative of the provider with ASC expertise, who shall advise CMS only on OPPS APC rates, as appropriate, impacting ASC covered procedures within the context and purview of the panel's scope. The Secretary or a designee selects the Panel membership based upon either self-nominations or nominations submitted by Medicare providers and other interested organizations of candidates determined to have the required expertise. For supervision deliberations, the Panel shall also include members that represent the interests of Critical Access Hospitals, who advice CMS only regarding the level of supervision for hospital outpatient therapeutic services. New appointments are made in a manner that ensures a balanced membership under the Federal Advisory Committee Act guidelines.

This notice also announces four new membership appointments to the Panel. The four new members will each serve a 4-year period, with terms that begin in Calendar Year (CY) 2020 and end in CY 2024. The Secretary rechartered the Panel in 2018 for a 2-year period effective through November 20, 2020. The current charter is available on the CMS website at: *https://www.cms.gov/Regulations-and-Guidance/Guidance/FACA/Downloads/2018-HOP-Panel-Charter.pdf.* The Panel presently consists of members and a Chair named below. The panel members whose names are annotated with a single asterisk (*) are members that had terms that otherwise would have expired but are continuing to serve temporarily in accordance with the charter while we search for new members. The panel members whose names are annotated with a double asterisk (**) are new members and have a 4 year term beginning on July 16, 2020 and continuing through July 15, 2024.

- E.L. Hambrick, M.D., J.D., CMS Chairperson
- Terry Bohlke, C.P.A., C.M.A, M.H.A., C.A.S.C
- Carmen Cooper-Oguz, P.T., D.P.T, M.B.A, C.W.S, W.C.C
- Paul Courtney, M.D.
- Peter Duffy, M.D.
- Shelly Dunham, R.N. (*)
- Lisa Gangarosa, M.D.
- Erika Hardy, R.H.I.A., C.D.I.P, C.C.S. (*)
- Michael Kuettel, M.D., M.B.A, Ph.D.
- Karen A. Lambert (*)
- Scott Manaker, M.D., Ph.D.**
- Brian Nester, D.O., M.B.A. **
- Bo Gately, M.B.A. **
- Matthew Wheatley, M.D., F.A.C.E.P. **

VII. Provisions of the Notice

We published a notice in the **Federal Register** on January 26, 2018, entitled ''Medicare Program; Request for Nominations to the Advisory Panel on Hospital Outpatient Payment'' (83 FR 3715). The notice solicited nominations for the Panel members on a continuous basis to fill the vacancies on the Panel. As published in this notice, CMS is accepting nominations on a continuous basis and encourages additional submissions. Any interested person or organization may nominate qualified individuals. Self-nominations from qualified individuals are also accepted. Additional information including criteria for nominees as well as submission requirements are available in the notice, which is accessible from the CMS website at: *https://www.govinfo.gov/content/pkg/FR-2018-01-26/pdf/2018-01474.pdf.*

VIII. Collection of Information Requirements

This document does not impose information collection requirements, that is, reporting, recordkeeping, or third-party disclosure requirements. Consequently, there is no need for review by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Administrator of the Centers for Medicare & Medicaid Services (CMS), Seema Verma, having reviewed and approved this document, authorizes Lynette Wilson, who is the **Federal Register** Liaison, to electronically sign this document for purposes of publication in the **Federal Register**.

Dated: August 4, 2020.

Lynette Wilson,

Federal Register Liaison, Department of Health and Human Services.

[FR Doc. 2020–17398 Filed 8–5–20; 4:15 pm]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2020–D–1480]

Drug-Drug Interaction Assessment for Therapeutic Proteins; Draft Guidance for Industry; Availability

AGENCY: Food and Drug Administration, Health and Human Services (HHS).

ACTION: Notice of availability.

SUMMARY: The Food and Drug Administration (FDA or Agency) is announcing the availability of a draft guidance for industry entitled ''Drug-Drug Interaction Assessment for Therapeutic Proteins.'' The purpose of this guidance is to provide a systematic, risk-based approach to help sponsors of investigational new drug applications (INDs) and applicants of biologic license applications (BLAs) determine the need for drug-drug interaction (DDI) studies for a therapeutic protein (TP).

DATES: Submit either electronic or written comments on the draft guidance by November 9, 2020 to ensure that the Agency considers your comment on this draft guidance before it begins work on the final version of the guidance.

ADDRESSES: You may submit comments on any guidance at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to

the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• Mail/Hand delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2020–D–1480 for ''Drug-Drug Interaction Assessment for Therapeutic Proteins.'' Received comments will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday. 240–420–7500.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.govinfo.gov/content/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. 240–402–7500.

You may submit comments on any guidance at any time (see 21 CFR 10.115(g)(5)).

Submit written requests for single copies of the draft guidance to the Division of Drug Information, Center for Drug Evaluation and Research, Food and Drug Administration, 10001 New Hampshire Ave., Hillandale Building, 4th Floor, Silver Spring, MD 20993–0002 or the Office of Communication, Outreach, and Development, Center for Biologics Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Rm. 3128, Silver Spring, MD 20993–0002. Send one self-addressed adhesive label to assist that office in processing your requests. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the draft guidance document.

FOR FURTHER INFORMATION CONTACT: Elimika Pfuma Fletcher, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 2162, Silver Spring, MD 20993, 301–796–3473; or Stephen Ripley, Center for Biologics Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 71, Rm. 7301, Silver Spring, MD 20993–0002, 240–402–7911.

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a draft guidance for industry entitled ''Drug-Drug Interaction Assessment for Therapeutic Proteins.'' With the continued market growth and increased clinical use of TPs, it is important to understand the nature of and the potential for DDIs with these products. This guidance supplements the final FDA guidances for industry entitled ''In Vitro Drug Interaction Studies—Cytochrome P450 Enzyme- and Transporter-Mediated Drug Interactions'' and ''Clinical Drug Interaction Studies—Cytochrome P450 Enzyme- and Transporter-Mediated Drug Interactions'' (January 2020) by providing a systematic, risk-based approach to determining the need for DDI studies for TPs. This guidance discusses considerations for assessing DDIs for TPs, including situations where determining the DDI potential of a TP is warranted. The guidance also discusses various types of DDI assessments, considerations for study design, and recommendations for labeling.

This draft guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The draft guidance, when finalized, will represent the current thinking of FDA on ''Drug-Drug Interaction Assessment for Therapeutic Proteins.'' It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations.

II. Paperwork Reduction Act of 1995

This draft guidance refers to previously approved FDA collections of information. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521). The collections of information for submissions of investigational new drug applications, new drug applications, and biologic license applications in 21 CFR parts 312, 314, and 601 have been approved under OMB control numbers 0910–0014, 0910–0001, and 0910–0338, respectively. In addition, the submission of prescription drug labeling under 21 CFR 201.56 and 201.57 has been approved under OMB control number 0910–0572.

III. Electronic Access

Persons with access to the internet may obtain the draft guidance at either *https://www.fda.gov/drugs/guidance-compliance-regulatory-information/guidances-drugs, https://www.fda.gov/vaccines-blood-biologics/guidance-compliance-regulatory-information-biologics/biologics-guidances,* or *https://www.regulations.gov.*

Dated: August 4, 2020.

Lowell J. Schiller,

Principal Associate Commissioner for Policy.

[FR Doc. 2020–17412 Filed 8–7–20; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

[OMB Control Number 1010–0057; Docket ID: BOEM–2017–0016]

Agency Information Collection Activities; Pollution Prevention and Control

AGENCY: Bureau of Ocean Energy Management, Interior

ACTION: Notice of Information Collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, the Bureau of Ocean Energy Management (BOEM) is proposing to renew an information collection with revisions.

DATES: Interested persons are invited to submit comments on or before October 9, 2020.

ADDRESSES: Send your comments on this information collection request (ICR) to the BOEM Information Collection Clearance Officer, Anna Atkinson, Bureau of Ocean Energy Management, 45600 Woodland Road, VAM–DIR, Sterling, Virginia 20166 (mail); or by email to *anna.atkinson@boem.gov.* Please reference OMB Control Number 1010–0057 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Anna Atkinson, 703–787–1205, or by email at *anna.atkinson@boem.gov.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995, we provide the general public and other Federal agencies with an opportunity to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

BOEM is soliciting comments on the proposed ICR that is described below. BOEM is especially interested in public comment addressing the following issues: (1) Is the collection necessary to the proper functions of BOEM; (2) what can BOEM do to ensure this information will be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might BOEM enhance the quality, utility, and clarity of the information to be collected; and (5) how might BOEM minimize the burden of this collection on the respondents, including minimizing the burden through the use of information technology?

Comments that you submit in response to this notice are a matter of public record. BOEM will include or summarize each comment in our request to Office of Management and Budget (OMB) for approval of this ICR. Before including your address, phone number, email address, or other personally identifiable information in your comment, you should be aware that your entire comment—including your personally identifiable information—may be made publicly available at any time. In order for BOEM to withhold from disclosure your personally identifiable information, you must identify any information contained in the submittal of your comments that, if released, would constitute a clearly unwarranted invasion of your personal privacy. You must also briefly describe any possible harmful consequences of the disclosure of information, such as embarrassment, injury, or other harm. While you can ask us in your comment to withhold your personally identifiable information from public review, we cannot guarantee that we will be able to do so.

Abstract: Section 5(a) of the Outer Continental Shelf (OCS) Lands Act, as amended (43 U.S.C. 1334(a)), authorizes the Secretary of the Interior (Secretary) to prescribe rules and regulations to manage the mineral resources of the OCS. Such rules and regulations apply to all operations conducted under a lease, right-of-use and easement, and pipeline right-of-way.

Section 5(a)(8) of the OCS Lands Act (43 U.S.C. 1334(a)(8)) requires that regulations prescribed by the Secretary include provisions ''for compliance with the national ambient air quality standards pursuant to the Clean Air Act (42 U.S.C. 7401 *et seq.*), to the extent that activities authorized under this subchapter significantly affect the air quality of any State.'' This information collection renewal with revisions concerns information that is submitted in response to regulatory requirements, such as the regulations at 30 CFR part 550, subpart C, Pollution Prevention and Control that implement section 5(a)(8) and related Notices to Lessees and Operators (NTLs) that clarify and provide additional guidance on some aspects of these regulations. BOEM uses the information to inform its decisions on plan approval, to ensure operations are conducted according to all applicable regulations and plan conditions of approval, and to inform State and regional planning organizations' modeling efforts.

BOEM prepares an Emissions Inventory every three years to help ensure that its regulations comply with section 5(a)(8) of OCS Lands Act, 43 U.S.C. 1334(a)(8), and to implement the requirement at 30 CFR 550.303(k) and 550.304(g). BOEM begins this effort by issuing an NTL with instructions about how lessees can submit basic information about their operations that are subject to sec. 5(a)(8) regulations, from which BOEM's software calculates emissions information. BOEM is planning to issue the next such guidance in the Fall for a collection period in calendar year 2021. These emission inventories provide BOEM with the essential input needed to assess offshore OCS oil and gas activity impacts to the states as mandated by the OCSLA. They also provide the states the essential tools needed to perform their State Implementation Plan demonstrations to the U.S. Environmental Protection Agency (USEPA), and they provide the operators essential data for their mandatory reporting of greenhouse gases to the USEPA.

BOEM is developing and planning to implement a web-based solution that will allow operators to submit their platform and non-platform activity data electronically, instantaneously calculate monthly and annual emissions, quality assure and control data, and generate reports, such as emission inventory reports, and data graphics to the operators and to BOEM. To collect the necessary emissions data from companies, BOEM currently uses the Gulfwide Offshore Activity Data System (GOADS) software. This software is out of date and resides on a platform that BOEM is no longer able to utilize satisfactorily. Therefore, BOEM plans to implement a new web-based solution that would allow users to input their information directly into the system, which in turn will allow BOEM to access the data and create reports needed to assess oil and gas source impacts to States. Unlike the existing tool, the new solution will make it easy for users to enter activity data, calculate emissions data in real-time for users, and leverage built-in validation features to quality check the calculations prior to submission.

BOEM protects proprietary information according to the Freedom of Information Act (FOIA) (5 U.S.C. 552) and the Department of the Interior's

implementing FOIA regulations (43 CFR part 2) and under regulations at 30 CFR 550.197, ''Data and information to be made available to the public or for limited inspection,'' promulgated pursuant to sec. 26 of OCSLA (43 U.S.C. 1352(c).''

Title of Collection: 30 CFR Part 550, Subpart C, Pollution Prevention and Control.

OMB Control Number: 1010–0057.

Form Number: None.

Type of Review: Revision of a currently approved collection.

Respondents/Affected Public: Potential respondents comprise Federal OCS oil and gas or sulphur lessees and States.

Total Estimated Number of Annual Respondents: 807.

Respondent's Obligation: Mandatory or Required to Obtain or Retain a Benefit.

Frequency: Every three years.

Total Estimated Annual Non-hour Burden Cost: None.

Estimated Reporting and Recordkeeping Hour Burden: We estimate the annual burden for this collection to be 35,200 hours, which are the same hours estimated in past reports accepted by OMB. The following table details the individual BOEM components and respective hour burden estimates of this ICR.

BURDEN TABLE

Citation 30 CFR 550 subpart C and related NTL(s)	Reporting and recordkeeping requirement	Hour burden	Average number of annual responses	Annual burden hours
Facilities described in new or revised EP or DPP				
303; 304(a), (f)	Submit, modify, or revise Exploration Plans and Development and Production Plans; submit information required under 30 CFR Part 550, Subpart B.	Burden covered under 1010–0151 (30 CFR Part 550, Subpart B).		0
303(k); 304(a), (g); NTL	Collect and report (in manner specified) air quality emissions related data (such as facility, equipment, fuel usage, and other activity information) during each specified calendar year for input into BOEM's impacts assessments, and State and regional planning organizations' modeling through specified software. (NTL OCS Emissions Inventory).	44 hrs per facility	794 facilities	34,936
303(l); 304(h)	Collect and submit (in manner specified) meteorological data (not routinely collected); emission data for existing facilities to a State.	8	1 submission	8
Subtotal			795	34,944
Existing Facilities				
304(a), (f)	Affected State may submit request with required information to BOEM for basic emission data from existing facilities to update State's emission inventory.	16	5 requests	80
304(e)(2)	Submit compliance schedule for application of best available control technology (BACT).	40	1 schedule	40
304(e)(2)	Apply for suspension of operations.	Burden covered under BSEE 1014–0022 (30 CFR 250.174)		0
304(f)	Submit information to demonstrate that exempt facility is not significantly affecting air quality of onshore area of a State. Submit additional information, as required.	16	1 submission	16

BURDEN TABLE—Continued

Citation 30 CFR 550 subpart C and related NTL(s)	Reporting and recordkeeping requirement	Hour burden	Average number of annual responses	Annual burden hours
Subtotal			7	136
General				
303–304	Departure and alternative compliance requests not specifically covered elsewhere in subpart C regulations.	24	5 requests	120
Subtotal			5	120
Total Burden			807	35,200

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

Deanna Meyer-Pietruszka,

Chief, Office of Policy, Regulations, and Analysis.

[FR Doc. 2020–17405 Filed 8–7–20; 8:45 am]

BILLING CODE 4310–MR–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1208]

Certain Electronic Devices, Including Computers, Tablet Computers, and Components and Modules Thereof; Notice of Institution

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on July 2, 2020, under section 337 of the Tariff Act of 1930, as amended, on behalf of Nokia Technologies Oy of Finland and Nokia Corporation of Finland. Supplements to the complaint were filed on July 17, 20, and 22, 2020. The complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain electronic devices, including computers, tablet computers, and components and modules thereof by reason of infringement of certain claims of U.S. Patent No. 8,144,764 (''the '764 patent''); U.S. Patent No. 7,532,808 (''the '808 patent''); U.S. Patent No. 6,950,469 (''the '469 patent''); U.S. Patent No. 7,724,818 (''the '818 patent''); and U.S. Patent No. 8,583,706 (''the '706 patent''). The complaint further alleges that an industry in the United States exists as required by the applicable Federal Statute. The complainants request that the Commission institute an investigation and, after the investigation, issue a limited exclusion order and cease and desist orders.

ADDRESSES: The complaint, except for any confidential information contained therein, may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *https://www.usitc.gov.*

FOR FURTHER INFORMATION CONTACT: Pathenia M. Proctor, The Office of Unfair Import Investigations, U.S. International Trade Commission, telephone (202) 205–2560.

SUPPLEMENTARY INFORMATION: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2020).

Scope of Investigation: Having considered the complaint, the U.S. International Trade Commission, on August 4, 2020, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain products identified in paragraph (2) by reason of infringement of one or more of claims 1, 2, 5–7, 9–13, 15, 16, 18, 21–23, 25–29, 31, 32, 35–37, 39–47, 49, 52–54, and 56–62 of the '764 patent; claims 1–4, 6, 7, 9–13, 15–18, 20–30, 32–41, 43–49, 51–60, and 62–65 of the '808 patent; claims 1–7, 9, 15, 16, 18, 20–25, 27–30, and 50 of the '469 patent; claims 1–15 and 20–23 of the '818 patent; and claims 1–16 of the '706 patent; and whether an industry in the United States exists as required by subsection (a)(2) of section 337;

(2) Pursuant to section 210.10(b)(1) of the Commission's Rules of Practice and Procedure, 19 CFR 210.10(b)(1), the plain language description of the accused products or category of accused products, which defines the scope of the investigation, is ''laptop computers, notebook computers, desktop computers, tablets, smart home devices, and servers.'';

(3) Pursuant to Commission Rule 210.50(b)(1), 19 CFR 210.50(b)(1), the presiding administrative law judge shall take evidence or other information and hear arguments from the parties or other interested persons with respect to the public interest in this investigation, as appropriate, and provide the Commission with findings of fact and a recommended determination on this issue, which shall be limited to the statutory public interest factors set forth in 19 U.S.C. 1337(d)(1), (f)(1), (g)(1);

(4) For the purpose of the investigation so instituted, the following

are hereby named as parties upon which this notice of investigation shall be served:

(a) The complainants are:

Nokia Technologies Oy, Karakaari 7A, FIN–02610, Espoo, Finland.

Nokia Corporation, Karakaari 7A, FIN–02610, Espoo, Finland.

(b) The respondents are the following entities alleged to be in violation of section 337, and are the parties upon which the complaint is to be served:

Lenovo (United States), Inc., 8001 Development Drive, Morrisville, NC 27560.

Lenovo Group Limited, Lincoln House, 23rd Floor, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong.

Lenovo (Beijing) Limited, 6 Chuangye Rd., Shangdi Haidian District, 100085 Beijing, China.

Lenovo (Shanghai) Electronics Technology Co. Ltd., No. 696 Songtao Road, 200000 Shanghai, China.

Lenovo PC HK Limited, Lincoln House, 23rd Floor, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong.

Lenovo Information Products Shenzhen Co. Ltd., No. 30 Tao Hua Road, Free Trade Zone, FuTian District, Shenzhen City, Guangdong Province, 518038 Shenzhen, China.

Lenovo Mobile Communication, No. 19, Gaoxin 4th Road, East Lake New Technology Development Zone, Hubei, 430079 Wuhan, China.

Lenovo Corporation, No. 2088 Pangjin Road, Wujiang City, Jiangsu, 215217 Wujiang, China.

Lenovo Centro Tecnologico S. de RL CV, Blvd. Escobedo No. 316, Parque Industrial Technology, 66600 Apodaca, Nuevo Leon, Mexico.

(c) The Office of Unfair Import Investigations, U.S. International Trade Commission, 500 E Street SW, Suite 401, Washington, DC 20436; and

(5) For the investigation so instituted, the Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge.

Responses to the complaint and the notice of investigation must be submitted by the named respondents in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(e) and 210.13(a), as amended in 85 FR 15798 (March 19, 2020), such responses will be considered by the Commission if received not later than 20 days after the date of service by the complainants of the complaint and the notice of investigation. Extensions of time for submitting responses to the complaint and the notice of investigation will not be granted unless good cause therefor is shown.

Failure of a respondent to file a timely response to each allegation in the complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondent, to find the facts to be as alleged in the complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order or both directed against the respondent.

By order of the Commission.

Issued: August 4, 2020.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2020–17360 Filed 8–7–20; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1209]

Certain Movable Barrier Operator Systems and Components Thereof; Notice of Institution

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that a complaint was filed with the U.S. International Trade Commission on July 6, 2020, under section 337 of the Tariff Act of 1930, as amended, on behalf of Overhead Door Corporation of Lewisville, Texas and GMI Holdings Inc. of Mount Hope, Ohio. A supplement to the complaint was filed on July 22, 2020. The complaint alleges violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain movable barrier operator systems and components thereof by reason of infringement of U.S. Patent No. 8,970,345 (''the '345 Patent''); U.S. Patent No. 9,483,935 (''the '935 Patent''); U.S. Patent No. 7,173,516 (''the '516 Patent''); U.S. Patent No. 7,180,260 (''the '260 Patent''); U.S. Patent No. 7,956,718 (''the '718 Patent''); and U.S. Patent No. 8,410,895 (''the '895 Patent''). The complaint further alleges that an industry in the United States exists as required by the applicable Federal Statute. The complainants request that the Commission institute an investigation and, after the investigation, issue a limited exclusion order and a cease and desist order.

ADDRESSES: The complaint, except for any confidential information contained therein, may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* Hearing impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *https://www.usitc.gov.*

FOR FURTHER INFORMATION CONTACT: Katherine Hiner, Office of Docket Services, U.S. International Trade Commission, telephone (202) 205–1802.

SUPPLEMENTARY INFORMATION: The authority for institution of this investigation is contained in section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, and in section 210.10 of the Commission's Rules of Practice and Procedure, 19 CFR 210.10 (2020).

SCOPE OF INVESTIGATION: Having considered the complaint, the U.S. International Trade Commission, on August 4, 2020, *ordered that*—

(1) Pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, an investigation be instituted to determine whether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain products identified in paragraph (2) by reason of infringement of one or more of claims 1, 2, 16, and 17 of the '345 patent; claims 1, 4, 16, and 19 of the '935 patent; claims 10–12, 14–16, and 18 of the '516 patent; claims 1–3, 7, and 8 of the '260 patent; claims 18 and 24 of the '718 patent; and claim 17 of the '895 patent, and whether an industry in the United States exists as required by subsection (a)(2) of section 337;

(2) Pursuant to section 210.10(b)(1) of the Commission's Rules of Practice and Procedure, 19 CFR 210.10(b)(1), the plain language description of the accused products or category of accused products, which defines the scope of the investigation, is ''garage door systems and components thereof, remote controls, wireless transmitters, and software for operating the garage door systems'';

(3) For the purpose of the investigation so instituted, the following are hereby named as parties upon which this notice of investigation shall be served:

(a) The complainants are:

Overhead Door Corporation, 2501 South State Highway 121, Bus., Suite 200, Lewisville, TX 75067.

GMI Holdings Inc., One Door Drive, Mount Hope, OH 44660.

(b) The respondent is the following entity alleged to be in violation of section 337, and is the party upon which the complaint is to be served:

The Chamberlain Group, Inc., 300 Windsor Drive, Oak Brook, IL 60523.

(4) For the investigation so instituted, the Chief Administrative Law Judge, U.S. International Trade Commission, shall designate the presiding Administrative Law Judge.

The Office of Unfair Import Investigations will not participate as a party in this investigation.

Responses to the complaint and the notice of investigation must be submitted by the named respondent in accordance with section 210.13 of the Commission's Rules of Practice and Procedure, 19 CFR 210.13. Pursuant to 19 CFR 201.16(e) and 210.13(a), as amended in 85 FR 15798 (March 19, 2020), such responses will be considered by the Commission if received not later than 20 days after the date of service by the complainant of the complaint and the notice of investigation. Extensions of time for submitting responses to the complaint and the notice of investigation will not be granted unless good cause therefor is shown.

Failure of the respondent to file a timely response to each allegation in the complaint and in this notice may be deemed to constitute a waiver of the right to appear and contest the allegations of the complaint and this notice, and to authorize the administrative law judge and the Commission, without further notice to the respondent, to find the facts to be as alleged in the complaint and this notice and to enter an initial determination and a final determination containing such findings, and may result in the issuance of an exclusion order or a cease and desist order or both directed against the respondent.

By order of the Commission.
Issued: August 4, 2020.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2020–17358 Filed 8–7–20; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

Tommy L. Louisville, M.D.; Decision and Order

On June 28, 2019, the Assistant Administrator, Diversion Control Division, Drug Enforcement Administration (hereinafter, DEA or Government), issued an Order to Show Cause (hereinafter, OSC) to Tommy L. Louisville, M.D. (hereinafter, Registrant) of Lakeland, Florida. OSC, at 1. The OSC proposed the revocation of Registrant's Certificate of Registration No. AL9587330. *Id.* It alleged that Registrant does ''not have authority to handle controlled substances in Florida, the state in which . . . [he is] registered with the DEA.'' *Id.* (citing 21 U.S.C. 823(f) and 824(a)(3)).

Specifically, the OSC alleged that, ''effective May 31, 2019, the [State of Florida] Board [of Medicine, (hereinafter FBM)] issued its Final Order whereby . . . [Registrant's] license to practice medicine (License No. ME0037525) was suspended for a period of two years.'' OSC, at 1–2. The OSC further alleged that ''[a]s of the date of this . . . [OSC], the suspension of . . . [Registrant's] Florida medical license has not been lifted'' and ''[a]s a result, . . . [he] currently lack[s] authority to handle controlled substances in Florida.'' *Id.* at 2 (citing 21 U.S.C. 802(21), 823(f), and 824(a)(3)). The OSC concluded that ''DEA must revoke . . . [Registrant's registration] based upon . . . [his] lack of authority to handle controlled substances in the State of Florida.'' OSC, at 2.

The OSC notified Registrant of the right to request a hearing on the allegations or to submit a written statement, while waiving the right to a hearing, the procedures for electing each option, and the consequences for failing to elect either option. *Id.* (citing 21 CFR 1301.43). The OSC also notified Registrant of the opportunity to submit a corrective action plan. OSC, at 3 (citing 21 U.S.C. 824(c)(2)(C)).

Adequacy of Service

In a sworn Declaration, dated August 13, 2019, a DEA Diversion Investigator assigned to the Tampa District Office of the Miami Division (hereinafter, TDDI) stated that she attempted personal service of the OSC on Registrant at the request of a DI assigned to the Miami Division (hereinafter, MDDI). Government's Submission Regarding Service of Order to Show Cause Upon Legal Counsel of Respondent and Motion for Termination of Proceedings Based Upon Respondent's Untimely Hearing Request, dated Aug. 15, 2019, filed *In re Tommy L. Louisville, M.D.,* DEA Docket No. 2019–36 (hereinafter, Government Submission), Attachment 3 (hereinafter, TDDI Declaration), at 2. When Registrant was not at his residence, she reached him by telephone, explained that she had the OSC to deliver to him, and learned that he was in Miami. *Id.* at 3. When Registrant asked if DEA could serve the OSC on his attorney, TDDI responded that ''this was a permissible arrangement if that was his preference.'' *Id.* According to the TDDI Declaration, Registrant ''reiterated'' that service on his attorney was his preference. *Id.* TDDI stated that she informed MDDI of Registrant's preference. *Id.*

In a sworn Declaration, dated August 13, 2019, MDDI stated that he left the OSC with Registrant's attorney on July 8, 2019. Government Submission, Attachment 4 (hereinafter, MDDI Declaration), at 2–3. MDDI stated that later the same day, the attorney sent him written confirmation of receipt of the OSC and of the forwarding of the OSC to Registrant. *Id.* at 3; *see also* Government Submission, Attachment 2, at 1 (attorney's written confirmation).

I agree with Administrative Law Judge Charles Wm. Dorman (hereinafter, ALJ) that service of the OSC was proper. Order Terminating Proceedings, dated Sept. 10, 2019 (hereinafter, OTP), at 6.

Hearing Request

By letter, dated August 8, 2019, the same attorney who accepted service of the OSC for Registrant transmitted a hearing request (hereinafter, Hearing Request) to the Office of Administrative Law Judges (hereinafter, OALJ).[1] The Hearing Request was emailed and received on August 8, 2019. It was also sent Federal Express and stamped ''received'' by OALJ on August 13, 2019. Hearing Request, at 1.

According to the nine-page Hearing Request, Registrant acknowledged the suspension of his Florida medical license, advised that he appealed it, and stated that he ''is in the process of filing a Motion to Stay the . . . [FBM] Final Order.'' *Id.* ''Accordingly,'' the Hearing Request concludes, ''DEA acted prematurely in issuing an Order to Show Cause in this matter.'' *Id.* ''We

[1] Among the nine pages comprising the Hearing Request is Form DEA–12 signed by Registrant's attorney showing his receipt of the OSC ''on behalf of'' Registrant on July 8, 2019. Hearing Request, at 7.

The Hearing Request states that ''[a]ll notices to be sent pursuant to the proceeding in this matter should be addressed to'' the attorney and, under ''Contact Information for Proceeding,'' provides a physical address. *Id.* at 2.

hope this information will be helpful to you in making your decision,'' the last paragraph of the Hearing Request states, ''and we look forward to a swift resolution of this issue.'' *Id.* at 3.

I agree with the ALJ that the Hearing Request was not timely filed. OTP, at 7; *see also* 21 CFR 1301.43 (instructing that a hearing request shall be filed within 30 days after receipt of the OSC). I note that the Hearing Request did not acknowledge its untimeliness, let alone provide good cause for it. Accordingly, I conclude that the ALJ acted properly in terminating the proceeding.

The Government forwarded its Request for Final Agency Action (hereinafter, RFAA), along with the evidentiary record, to my office on January 8, 2020. In its RFAA, the Government represented that ''[a]ccording to the most recent information obtained by DEA, [Registrant's Florida medical license] suspension remains in place and has not been lifted.'' RFAA, at 5. Accordingly, the Government requested that Registrant's registration be revoked. *Id.*

I issue this Decision and Order based on the record submitted by the Government in its RFAA and on the content of Docket No. 2019–36, which constitute the entire record before me. 21 CFR 1301.43(e).

Findings of Fact

Registrant's DEA Registration

Registrant is the holder of DEA Certificate of Registration No. AL9587330 at the registered address of 1801 Crystal Lake Dr., Lakeland, FL 33801. RFAA, EX 2 (Facsimile of DEA Certificate of Registration Number AL9587330), at 1. Pursuant to this registration, Registrant is authorized to dispense controlled substances in schedules II through V as a practitioner. *Id.* Registrant's registration expired on March 31, 2020.[2] *Id.*

The Status of Registrant's State License and Registration

The Government submitted evidence that the FBM reprimanded Registrant and suspended his medical license for two years on May 30, 2019. Government's Motion for Summary Disposition and Argument in Support of Finding that Respondent Lacks State Authorization to Handle Controlled Substances, dated Aug. 23, 2019, filed *In re Tommy L. Louisville, M.D.,* DEA Docket No. 2019–36, Attachment 2 (Final FBM Order on License No. ME0037525), at 2–3. The FBM's action was effective May 31, 2019. *Id.* at 1, 3. The FBM Final Order also permanently prohibited Registrant from certifying patients for medical marijuana and from practicing telemedicine. *Id.* at 2.

According to Florida's online records, of which I take official notice, Registrant's medical license remains suspended.[3] Florida Department of Health MQA Search Services, Health Care Providers, *https://appsmqa.doh.state.fl.us/MQASearchServices/HealthCareProviders* (last visited July 21, 2020). As such, I find that Registrant's Florida medical license is suspended.

Discussion

Pursuant to 21 U.S.C. 824(a)(3), the Attorney General is authorized to suspend or revoke a registration issued under section 823 of the CSA ''upon a finding that the registrant . . . has had his State license or registration suspended . . . [or] revoked . . . by competent State authority and is no longer authorized by State law to engage in the . . . dispensing of controlled substances.'' With respect to a practitioner, DEA has also long held that the possession of authority to dispense controlled substances under the laws of the state in which a practitioner engages in professional practice is a fundamental condition for obtaining and maintaining a practitioner's registration. *See, e.g., James L. Hooper, M.D.,* 76 FR 71371 (2011), *pet. for rev. denied,* 481 F. App'x 826 (4th Cir. 2012); *Frederick Marsh Blanton, M.D.,* 43 FR 27616, 27617 (1978).

This rule derives from the text of two provisions of the CSA. First, Congress defined the term ''practitioner'' to mean ''a physician . . . or other person licensed, registered, or otherwise permitted, by . . . the jurisdiction in which he practices . . . , to distribute, dispense, . . . [or] administer . . . a controlled substance in the course of professional practice.'' 21 U.S.C. 802(21). Second, in setting the requirements for obtaining a practitioner's registration, Congress directed that ''[t]he Attorney General shall register practitioners . . . if the applicant is authorized to dispense . . . controlled substances under the laws of the State in which he practices.'' 21 U.S.C. 823(f). Because Congress has clearly mandated that a practitioner possess state authority in order to be deemed a practitioner under the CSA, DEA has held repeatedly that revocation of a practitioner's registration is the appropriate sanction whenever he is no longer authorized to dispense controlled substances under the laws of the state in which he practices. *See, e.g., James L. Hooper, M.D.,* 76 FR at 71371–72; *Sheran Arden Yeates, M.D.,* 71 FR 39130, 39131 (2006); *Dominick A. Ricci, M.D.,* 58 FR 51104, 51105 (1993); *Bobby Watts, M.D.,* 53 FR 11919, 11920 (1988); *Frederick Marsh Blanton, M.D.,* 43 FR at 27617.

According to Florida statute, ''A practitioner, in good faith and in the course of his or her professional practice only, may prescribe, administer, [or] dispense . . . a controlled substance.'' Fla. Stat. Ann. § 893.05(1)(a) (West, current with chapters from the 2020 Second Regular Session of the 26th Legislature in effect through May 18, 2020). Further, ''practitioner,'' as defined by Florida statute, includes ''a physician licensed under chapter 458.''[4] Fla. Stat. Ann. § 893.02(23) (West, current with chapters from the 2020 Second Regular Session of the 26th Legislature in effect through May 18, 2020).

Here, the undisputed evidence in the record is that Registrant's license to practice medicine is currently suspended. As such, he is not a ''practitioner'' as that term is defined by Florida law. Further, as already discussed, a physician must be a practitioner to dispense a controlled substance in Florida. Thus, since Registrant lacks authority to practice medicine in Florida, he is also not authorized to handle controlled substances in Florida. Accordingly, I will order that Registrant's DEA registration be revoked.[5]

[2] The fact that a Registrant's registration expires during the pendency of an OSC does not impact my jurisdiction or prerogative under the Controlled Substances Act (hereinafter, CSA) to adjudicate the OSC to finality. *Jeffrey D. Olsen, M.D.,* 84 FR 68874 (2019).

[3] Under the Administrative Procedure Act, an agency ''may take official notice of facts at any stage in a proceeding—even in the final decision.'' United States Department of Justice, Attorney General's Manual on the Administrative Procedure Act 80 (1947) (Wm. W. Gaunt & Sons, Inc., Reprint 1979). Pursuant to 5 U.S.C. 556(e), ''[w]hen an agency decision rests on official notice of a material fact not appearing in the evidence in the record, a party is entitled, on timely request, to an opportunity to show the contrary.'' Accordingly, Applicant may dispute my finding by filing a properly supported motion for reconsideration of finding of fact within fifteen calendar days of the date of this Order. Any such motion shall be filed with the Office of the Administrator and a copy shall be served on the Government. In the event Applicant files a motion, the Government shall have fifteen calendar days to file a response. Any such motion and response shall be filed and served by email on the other party at the email address the party submitted for receipt of communications related to this administrative proceeding, and on the Office of the Administrator, Drug Enforcement Administration at *dea.addo.attorneys@dea.usdoj.gov.*

[4] Chapter 458 regulates medical practice.

[5] I note the Hearing Request's assertion that Registrant appealed the FBM suspension of his

Order

Pursuant to 28 CFR 0.100(b) and the authority vested in me by 21 U.S.C. 824(a), I hereby revoke DEA Certificate of Registration No. AL9587330 issued to Tommy L. Louisville, M.D. This Order is effective September 9, 2020.

Timothy J. Shea,

Acting Administrator.

[FR Doc. 2020–17373 Filed 8–7–20; 8:45 am]

BILLING CODE 4410–09–P

medical license. The pendency of such an appeal, however, is irrelevant to my decision. *See, e.g., James Alvin Chaney, M.D.,* 80 FR 57391, 57392 (2015) (calling the fact that a state's suspension order remains subject to challenge ''of no consequence'' to the Agency's decision to revoke).

DEPARTMENT OF JUSTICE

[OMB Number 1117–0009]

Agency Information Collection Activities; Proposed eCollection, eComments Requested; Extension Without Change of a Previously Approved Collection; Controlled Substances Import/Export Declaration; DEA Form 236

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: 30-Day Notice.

SUMMARY: The Department of Justice (DOJ), Drug Enforcement Administration (DEA), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for 30 days until September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

—Evaluate whether and if so how the quality, utility, and clarity of the information proposed to be collected can be enhanced; and

—Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Extension of a currently approved collection.

2. *Title of the Form/Collection:* Controlled Substances Import/Export Declaration.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* Form Number: DEA Form 236. The Department of Justice component is the Drug Enforcement Administration, Office of Diversion Control.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:*

Affected public (Primary): Business or other for-profit.

Affected public (Other): None.

Abstract: DEA Form 236 enables DEA to monitor and control the importation and exportation of controlled substances. Analysis of these documents provides DEA with important intelligence regarding the international commerce in controlled substances and assists in the identification of suspected points of diversion.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* DEA estimates that there are 323 total respondents for this information collection. In total, 323 respondents submit 8154 responses, with each response taking 15 minutes to complete.

6. *An estimate of the total public burden (in hours) associated with the proposed collection:* The DEA estimates that this collection takes 2,039 annual burden hours.

If additional information is required please contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE, Suite 3E.405B, Washington, DC 20530.

Dated: August 5, 2020.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2020–17377 Filed 8–7–20; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF JUSTICE

[OMB Number 1117–0004]

Agency Information Collection Activities; Proposed eCollection, eComments Requested; Extension Without Change of a Previously Approved Collection; Application for Permit To Export Controlled Substances, Application for Permit To Export Controlled Substances for Subsequent Re-Export; DEA Forms 161, 161R, 161R–EEA

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: 30-Day notice.

SUMMARY: The Department of Justice (DOJ), Drug Enforcement Administration (DEA), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for additional 30 days until September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

—Evaluate whether and if so how the quality, utility, and clarity of the information proposed to be collected can be enhanced; and
—Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Extension of a currently approved collection.

2. *Title of the Form/Collection:* Application for Permit to Export Controlled Substances; Application for Permit to Export Controlled Substances for Subsequent Re-export.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* DEA Forms: 161, 161R, 161R–EEA. The applicable component within the Department of Justice is the Drug Enforcement Administration, Diversion Control Division.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:*

Affected public (Primary): Business or other for-profit.

Affected public (Other): Not-for-profit institutions; Federal, State, local, and tribal governments.

Abstract: Title 21, Code of Federal Regulations (21 CFR), Sections 1312.21 and 1312.22 require that any person who desires to export or re-export controlled substances listed in schedules I or II, any narcotic substance listed in schedules III or IV, or any non-narcotic substance in schedule III which the Administrator has specifically designated by regulation in § 1312.30, or any non-narcotic substance in schedules IV or V which is also listed in schedule I or II of the Convention on Psychotropic Substances, must have an export permit.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The DEA estimates that 127 respondents, with 7,282 responses annually to this collection. The DEA estimates that it takes .52719 hour to complete the form.

6. *An estimate of the total public burden (in hours) associated with the proposed collection:* The DEA estimates that this collection takes 3,839 annual burden hours.

If additional information is required please contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE, Suite 3E.405B, Washington, DC 20530.

Dated: August 5, 2020.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2020–17379 Filed 8–7–20; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF JUSTICE

[OMB Number 1117–0024]

Agency Information Collection Activities; Proposed eCollection, eComments Requested; Extension Without Change of a Previously Approved Collection; Reports of Loss or Disappearance of Listed Chemicals and Regulated Transactions in Tableting/Encapsulating Machines; DEA Forms 107 and 452

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: 30-Day notice.

SUMMARY: The Department of Justice (DOJ), Drug Enforcement Administration (DEA), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. This proposed information collection was previously published in the **Federal Register** on June 03, 2020, allowing for a 60 day comment period.

DATES: Comments are encouraged and will be accepted for an additional 30 days until September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:
—Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
—Evaluate whether and if so how the quality, utility, and clarity of the information proposed to be collected can be enhanced; and
—Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Extension of a currently approved collection.

2. *Title of the Form/Collection:* Reports of Loss or Disappearance of Listed Chemicals and Regulated Transactions in Tableting/Encapsulating Machines.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* DEA Forms 107 and 452. The applicable component within the Department of Justice is the Drug Enforcement Administration, Diversion Control Division.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:*

Affected public (Primary): Business or other for-profit.

Affected public (Other): Not-for-profit institutions; Federal, State, local, and tribal governments.

Abstract: Each regulated person is required to report any unusual or excessive loss or disappearance of a listed chemical, and any regulated transaction in a tableting or encapsulating machine, to include any domestic regulated transaction in a tableting or encapsulating machine and any import or export of a tableting or encapsulating machine. 21 U.S.C. 830 (b)(1)(A), (C) and (D); 21 CFR 1310.05(a)(1), (3)–(4); 21 CFR 1310.05(c).

Regulated persons include manufacturers, distributors, importers, and exporters of listed chemicals, tableting machines, or encapsulating machines, or persons who serve as brokers or traders for international transactions involving a listed chemical, tableting machine, or encapsulating machine. 21 CFR 1300.02(b).

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* DEA estimates that 2,331 persons respond as needed to this collection. Responses take 20 minutes.

6. *An estimate of the total public burden (in hours) associated with the proposed collection:* DEA estimates that this collection takes 1,276 annual burden hours.

If additional information is required please contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE, Suite 3E.405B, Washington, DC 20530.

Dated: August 5, 2020.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2020–17376 Filed 8–7–20; 8:45 am]

BILLING CODE 4410&ndash09–P

DEPARTMENT OF JUSTICE

[OMB Number 1117–0023]

Agency Information Collection Activities; Proposed eCollection, eComments Requested; Extension Without Change of a Previously Approved Collection; Import/Export Declaration for List I and List II Chemicals; DEA Forms 486, 486A

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: 30-Day notice.

SUMMARY: The Department of Justice (DOJ), Drug Enforcement Administration (DEA), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for 30 days until September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain*. Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

—Evaluate whether and if so how the quality, utility, and clarity of the information proposed to be collected can be enhanced; and

—Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Extension of a currently approved collection.

2. *Title of the Form/Collection:* Import/Export Declaration for List I and List II Chemicals.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* DEA Forms: 486, 486A. The applicable component within the Department of Justice is the Drug Enforcement Administration, Diversion Control Division.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:*

Affected public (Primary): Business or other for-profit.

Affected public (Other): Not-for-profit institutions; Federal, State, local, and tribal governments.

Abstract: Section 1018 of the Controlled Substances Import and Export Act (CSIEA) (21 U.S.C. 971) and Title 21 Code of Federal Regulations (21 CFR) part 1313 require any persons who import, export, or conduct international transactions involving list I and list II chemicals are required to establish a system of recordkeeping and report certain information regarding those transactions to DEA. The chemicals subject to control are used in the clandestine manufacture of controlled substances. The reports of domestic, import, and export regulated transactions in listed chemicals are submitted electronically through the Diversion Control Division secure network application. Any person who desires to import non-narcotic substances in schedules III, IV, and V must electronically file their return information. Any person who desires to export non-narcotic substances in schedules III and IV and any other substance in schedule V is also required to electronically file a controlled substances import declaration/controlled substance export invoice.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The below table presents information regarding the number of respondents, responses and associated burden hours.

	Number of annual respondents	Number of annual responses	Average time per response (hours)	Total annual hours
DEA–486—Import	132	2,153	0.33 (20 minutes)	718
DEA–486—Export	227	13,142	0.28 (17 minutes)	3,724
DEA–486—International	20	424	0.28 (17 minutes)	120
DEA–486A—Import	38	697	0.40 (24 minutes)	279
Total	417	16,416		4,840

6. *An estimate of the total public burden (in hours) associated with the proposed collection:* DEA estimates that this collection takes 4,840 annual burden hours.

If additional information is required please contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution

Square, 145 N Street NE, Suite 3E.405B, Washington, DC 20530.

Dated: August 5, 2020.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2020–17375 Filed 8–7–20; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF JUSTICE

[OMB Number 1117–0013]

Agency Information Collection Activities; Proposed eCollection, eComments Requested; Extension Without Change of a Previously Approved Collection; Application for Permit To Import Controlled Substances for Domestic and/or Scientific Purposes Pursuant to 21 U.S.C. 952; DEA Form 357

AGENCY: Drug Enforcement Administration, Department of Justice.

ACTION: 30-Day notice.

SUMMARY: The Department of Justice (DOJ), Drug Enforcement Administration (DEA), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted for 30 days until September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

SUPPLEMENTARY INFORMATION: Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

—Evaluate whether and if so how the quality, utility, and clarity of the information proposed to be collected can be enhanced; and

—Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

1. *Type of Information Collection:* Extension of a currently approved collection.

2. *Title of the Form/Collection:* Application for Permit to Import Controlled Substances for Domestic and/or Scientific Purposes Pursuant to 21 U.S.C. 952.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* DEA Form: 357. The applicable component within the Department of Justice is the Drug Enforcement Administration, Diversion Control Division.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:*

Affected public (Primary): Business or other for-profit.

Affected public (Other): None.

Abstract: Section 1002 of the Controlled Substances Import and Export Act (CSIEA) (21 U.S.C. 952) and Title 21, Code of Federal Regulations (21 CFR), Sections 1312.11, 1312.12 and 1312.13 requires any person who desires to import controlled substances listed in schedules I or II, any narcotic substance listed in schedules III or IV, or any non-narcotic substance in schedule III which the Administrator has specifically designated by regulation in § 1312.30, or any nonnarcotic substance in schedule IV or V which is also listed in schedule I or II of the Convention on Psychotropic Substances, must have an import permit. To obtain the permit to import controlled substances for domestic and or scientific purposes, an application for the permit must be made to DEA on DEA Form 357.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* DEA estimates that 171 registrants participate in this information collection, taking an estimated 0.26 hours per registrant annually.

6. *An estimate of the total public burden (in hours) associated with the proposed collection:* DEA estimates the total public burden (in hours) associated with this collection: 497 annual burden hours.

If additional information is required please contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE, Suite 3E.405B, Washington, DC 20530.

Dated: August 5, 2020.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2020–17378 Filed 8–7–20; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF LABOR

Office of the Secretary

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Certification of Funeral Expenses

ACTION: Notice of availability; request for comments.

SUMMARY: The Department of Labor (DOL) is submitting this Office of Workers' Compensation Program (OWCP)-sponsored information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (PRA). Public comments on the ICR are invited.

DATES: The OMB will consider all written comments that agency receives on or before September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

Comments are invited on: (1) Whether the collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; (2) if the information will be processed and used in a timely manner; (3) the accuracy of the agency's estimates of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (4) ways to enhance the quality, utility and clarity of the information collection; and (5) ways to minimize the burden of the

collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

FOR FURTHER INFORMATION CONTACT: Crystal Rennie by telephone at 202–693–0456, or by email at *DOL_PRA_PUBLIC@dol.gov.*

SUPPLEMENTARY INFORMATION: Form LS–265 is used to report funeral expenses payable under the Longshore and Harbor Workers' Compensation Act. For additional substantive information about this ICR, see the related notice published in the **Federal Register** on April 9, 2020 (85 FR 19962).

This information collection is subject to the PRA. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an information collection, unless the OMB approves it and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information that does not display a valid OMB Control Number. *See* 5 CFR 1320.5(a) and 1320.6.

DOL seeks PRA authorization for this information collection for three (3) years. OMB authorization for an ICR cannot be for more than three (3) years without renewal. The DOL notes that information collection requirements submitted to the OMB for existing ICRs receive a month-to-month extension while they undergo review.

Agency: DOL–OWCP.

Title of Collection: Certification of Funereal Expenses.

OMB Control Number: 1240–0040.

Affected Public: Private Sector—Businesses or other for-profits.

Total Estimated Number of Respondents: 75.

Total Estimated Number of Responses: 75.

Total Estimated Annual Time Burden: 19 hours.

Total Estimated Annual Other Costs Burden: $22.

Authority: 44 U.S.C. 3507(a)(1)(D).

Crystal Rennie,

Acting Departmental Clearance Officer.

[FR Doc. 2020–17368 Filed 8–7–20; 8:45 am]

BILLING CODE 4510–CF–P

DEPARTMENT OF LABOR

Meeting of the Labor Advisory Committee for Trade Negotiations and Trade Policy

AGENCY: Bureau of International Labor Affairs, Labor.

ACTION: Meeting notice.

SUMMARY: Notice of a Labor Advisory Committee for Trade Negotiations and Trade Policy meeting.

DATES: August 21, 2020, 11:00 a.m. to 12:30 p.m.; Virtual.

FOR FURTHER INFORMATION CONTACT: Anne M. Zollner, Designated Federal Official and Division Chief, Trade Policy and Negotiations, Office of Trade and Labor Affairs, Bureau of International Labor Affairs, Department of Labor, Frances Perkins Building, Room S–5317, 200 Constitution Ave. NW, Washington, DC 20210, telephone (202) 693–4890, *zollner.anne@dol.gov.*

SUPPLEMENTARY INFORMATION: The Labor Advisory Committee for Trade Negotiations and Trade Policy consults with and makes recommendations to the Secretary of Labor and the United States Trade Representative on general policy matters concerning labor and trade negotiations, operations of any trade agreement once entered into, and other matters arising in connection with the administration of the trade policy of the United States.

During the meeting, the Committee will review and discuss current issues that influence U.S. trade policy. The Committee will also discuss potential U.S. negotiating objectives and bargaining positions in current and anticipated trade negotiations. Pursuant to 19 U.S.C. 2155(f)(2)(A), the meeting will be concern matters the disclosure of which would seriously compromise the Government's negotiating objectives or bargaining positions. Therefore, the meeting is exempt from the requirements of subsections (a) and (b) of sections 10 and 11 of the Federal Advisory Committee Act (relating to open meetings, public notice, public participation, and public availability of documents). 5 U.S.C. app. Accordingly, the meeting will be closed to the public.

Grant B. Lebens,

Chief of Staff, Bureau of International Labor Affairs.

[FR Doc. 2020–17367 Filed 8–7–20; 8:45 am]

BILLING CODE 4510–28–P

DEPARTMENT OF LABOR

Office of the Secretary

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Disclosures to Workers Under the Migrant and Seasonal Agricultural Worker Protection Act

ACTION: Notice of availability; request for comments.

SUMMARY: The Department of Labor (DOL) is submitting this Wage and Hour Division (WHD)-sponsored information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (PRA). Public comments on the ICR are invited.

DATES: The OMB will consider all written comments that agency receives on or before September 9, 2020.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Anthony May by telephone at 202–693–4129 (this is not a toll-free number) or by email at *DOL_PRA_PUBLIC@dol.gov.*

SUPPLEMENTARY INFORMATION: Comments are invited on: (1) Whether the collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; (2) if the information will be processed and used in a timely manner; (3) the accuracy of the agency's estimates of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (4) ways to enhance the quality, utility and clarity of the information collection; and (5) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

The Migrant and Seasonal Agricultural Worker Protection Act (MSPA) safeguards migrant and seasonal agricultural workers in their interactions with Farm Labor Contractors, Agricultural Employers and Agricultural Associations, and providers of migrant farm worker housing. See Public Law 97–470. The MSPA requires

Farm Labor Contractors, Agricultural Employers, and Agricultural Associations, who recruit, solicit, hire, employ, furnish, transport, or house agricultural workers, as well as providers of migrant housing, to meet certain minimum requirements in their dealings with migrant and seasonal agricultural workers. Various sections of the MSPA require respondents (*e.g.,* Farm Labor Contractors, Agricultural Employers, and Agricultural Associations) to disclose terms and conditions in writing to their workers. MSPA § 201(g) and § 301(f) requires that the DOL make forms available to provide such information. The DOL prints and makes optional-use form WH–516, Worker Information—Terms and Conditions of Employment.

MSPA § 201(d) and § 301(c)—29 U.S.C. 1821(d), 1831(c) and regulations 29 CFR 500.80(a), require each Farm Labor Contractor, Agricultural Employer, and Agricultural Association that employs a migrant or seasonal worker to make, keep, and preserve records for three years for each such worker concerning the: (1) Basis on which wages are paid; (2) number of piece work units earned, if paid on a piece work basis; (3) number of hours worked; (4) total pay period earnings; (5) specific sums withheld and the purpose of each sum withheld; (6) net pay. Respondents are also required to provide an itemized written statement of this information to each migrant and seasonal agricultural worker each pay period. See 29 U.S.C. 1821(d), 1831(c), and 29 CFR 500.1–.80(d). Additionally, MSPA § 201(e) and § 301(d) require each Farm Labor Contractor provide copies of all the records noted above for the migrant and seasonal agricultural workers the contractor has furnished to other Farm Labor Contractors, Agricultural Employers, or Agricultural Associations who use the workers. Respondents must also make and keep certain records. § 201(c) of the MSPA requires all Farm Labor Contractors, Agricultural Employers, and Agricultural Associations providing housing to a migrant agricultural worker to post in a conspicuous place at the site of the housing, or present to the migrant worker, a written statement of any housing occupancy terms and conditions. For additional substantive information about this ICR, see the related notice published in the **Federal Register** on January 16, 2020 (85 FR 2760).

This information collection is subject to the PRA. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an information collection, unless the OMB approves it and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information that does not display a valid OMB Control Number. *See* 5 CFR 1320.5(a) and 1320.6.

DOL seeks PRA authorization for this information collection for three (3) years. OMB authorization for an ICR cannot be for more than three (3) years without renewal. The DOL notes that information collection requirements submitted to the OMB for existing ICRs receive a month-to-month extension while they undergo review.

Agency: DOL–WHD.

Title of Collection: Disclosures to Workers Under the Migrant and Seasonal Agricultural Worker Protection Act.

OMB Control Number: 1235–0002.

Affected Public: Private Sector: Businesses or other for-profits and farms.

Total Estimated Number of Respondents: 94,729.

Total Estimated Number of Responses: 71,338,888.

Total Estimated Annual Time Burden: 1,202,228 hours.

Total Estimated Annual Other Costs Burden: $2,853,555.

(Authority: 44 U.S.C. 3507(a)(1)(D))

Dated: August 4, 2020.

Anthony May,

Management and Program Analyst.

[FR Doc. 2020–17369 Filed 8–7–20; 8:45 am]

BILLING CODE 4510–27–P

NUCLEAR REGULATORY COMMISSION

[NRC–2020–0001]

Sunshine Act Meetings

TIME AND DATE: Weeks of August 10, 17, 24, 31, September 7, 14, 21, 28, October 5, 12, 19, 2020.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public.

Week of August 10, 2020

There are no meetings scheduled for the week of August 10, 2020.

Week of August 17, 2020—Tentative

There are no meetings scheduled for the week of August 17, 2020.

Week of August 24, 2020—Tentative

There are no meetings scheduled for the week of August 24, 2020.

Week of August 31, 2020—Tentative

There are no meetings scheduled for the week of August 31, 2020.

Week of September 7, 2020—Tentative

There are no meetings scheduled for the week of September 7, 2020.

Week of September 14, 2020—Tentative

Tuesday, September 15, 2020

10:00 a.m. Agency's Response to the COVID–19 Public Health Emergency (Public Meeting)

(Contact: Luis Betancourt: 301–415–6146)

This meeting will be webcast live at the Web address—*https://www.nrc.gov/.*

Thursday, September 17, 2020

10:00 a.m. Transformation at the NRC—Milestones and Results (Public Meeting)

(Contact: Maria Arribas-Colon: 301–415–6026)

This meeting will be webcast live at the Web address—*https://www.nrc.gov/.*

Week of September 21, 2020—Tentative

There are no meetings scheduled for the week of September 21, 2020.

Week of September 28, 2020—Tentative

Wednesday, September 30, 2020

9:00 a.m. Strategic Programmatic Overview of the Operating Reactors and New Reactors Business Lines and Results of the Agency Action Review Meeting (Public Meeting)

(Contact: Candace de Messieres: 301–415–8395)

This meeting will be webcast live at the Web address—*https://www.nrc.gov/.*

Week of October 5, 2020—Tentative

Thursday, October 8, 2020

10:00 a.m. Meeting with the Organization of Agreement States and the Conference of Radiation Control Program Directors (Public Meeting)

(Contact: Celimar Valentin-Rodriquez: 301–415–7124)

This meeting will be webcast live at the Web address—*https://www.nrc.gov/.*

Week of October 12, 2020—Tentative

There are no meetings scheduled for the week of October 12, 2020.

Week of October 19, 2020—Tentative

Wednesday, October 21, 2020

10:00 a.m. Briefing on Human Capital and Equal Employment Opportunity (Public Meeting)

(Contact: Randi Neff: 301–287–0583)

This meeting will be webcast live at the Web address—*https://www.nrc.gov/.*

1:00 p.m. All Employees Meeting with the Commissioners (Public Meeting)

CONTACT PERSON FOR MORE INFORMATION: For more information or to verify the status of meetings, contact Denise McGovern at 301–415–0681 or via email at *Denise.McGovern@nrc.gov.* The schedule for Commission meetings is subject to change on short notice.

The NRC Commission Meeting Schedule can be found on the internet at: *https://www.nrc.gov/public-involve/public-meetings/schedule.html.*

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in these public meetings or need this meeting notice or the transcript or other information from the public meetings in another format (*e.g.,* braille, large print), please notify Anne Silk, NRC Disability Program Specialist, at 301–287–0745, by videophone at 240–428–3217, or by email at *Anne.Silk@nrc.gov.* Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

Members of the public may request to receive this information electronically. If you would like to be added to the distribution, please contact the Nuclear Regulatory Commission, Office of the Secretary, Washington, DC 20555 (301–415–1969), or by email at *Wendy.Moore@nrc.gov* or *Tyesha.Bush@nrc.gov.*

The NRC is holding the meetings under the authority of the Government in the Sunshine Act, 5 U.S.C. 552b.

Dated: August 6, 2020.

For the Nuclear Regulatory Commission.

Denise L. McGovern

Policy Coordinator, Office of the Secretary.

[FR Doc. 2020–17526 Filed 8–6–20; 4:15 pm]

BILLING CODE 7590–01–P

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Notice of Request for Information on Positioning, Navigation, and Timing Resilience

AGENCY: Office of Science & Technology Policy (OSTP).

ACTION: Notice of request for information (RFI).

SUMMARY: On behalf of the National Science and Technology Council's (NSTC) Subcommittee on Resilience Science and Technology (SRST), OSTP requests input from all interested parties on the development of a National Research and Development Plan for Positioning, Navigation, and Timing (PNT) Resilience. The plan will focus on the research and development (R&D) and pilot testing needed to develop additional PNT systems and services that are resilient to interference and manipulation and that are not dependent upon global navigation satellite systems (GNSS). The plan will also include approaches to integrate and use multiple PNT services for enhancing resilience. The input received on these topics will assist the Subcommittee in developing recommendations for prioritization of R&D activities.

DATES: Interested persons are invited to submit comments on or before 11:59 p.m. ET on September 9, 2020. Comments received after this date may not be considered.

ADDRESSES: Responses should be submitted via email to *PNTresearch@ostp.eop.gov* and include ''RFI Response: PNT Resilience'' in the subject line of the message.

Instructions: Response to this RFI is voluntary. Respondents need not reply to all questions listed. For all submissions, clearly indicate which questions are being answered. Each individual or organization is requested to submit only one response. Submissions should include the name(s) of the person(s) or organization(s) filing the comment. No other personally identifiable information, business proprietary information, or copyrighted information should be included. Submissions should not exceed 10 pages in length using 12 point or larger font and should be in plain text, Microsoft Word, or Adobe PDF format. Submissions that cite references, studies, research, and other empirical data that are not widely published should include copies of, or electronic links to, the referenced materials.

In accordance with Federal Acquisition Regulation 15.201(e), ''RFIs may be used when the Government does not presently intend to award a contract, but wants to obtain price, delivery, other market information, or capabilities for planning purposes. Responses to these notices are not offers and cannot be accepted by the Government to form a binding contract.'' Additionally, the Federal Government will not pay for response preparation or the use of any information contained in the response. Submissions are subject to Freedom of Information Act (FOIA) disclosure and may be posted, without change, on a Federal website.

FOR FURTHER INFORMATION CONTACT: Please direct questions to Adam Balkcum, OSTP at *PNTresearch@ostp.eop.govor* 202–456–4444.

SUPPLEMENTARY INFORMATION: PNT has become an ''invisible utility'' that is integral to and enables a wide array of applications such as financial transactions, synchronization of power networks, and the precision landing approaches of aircraft. PNT services are currently provided or augmented by a number of terrestrial and space-based systems, with the most notable and widely used being the Global Positioning System (GPS). Satellite platforms, such as GPS, provide global coverage but at great distances and with low signal intensity, which can be more easily interfered with at the local level by natural phenomena and by technological means (both intentional and unintentional). On February 12, 2020, President Trump signed Executive Order (E.O.) 13905, ''Strengthening National Resilience Through Responsible Use of Positioning, Navigation, and Timing Services,'' with the goal of ensuring that the Nation's critical infrastructure can withstand disruption or manipulation of PNT services. E.O. 13905 directs the development of a national plan for the R&D and pilot testing of additional, robust, and secure PNT services that are not dependent on GNSS. These additional services may consist of multiple systems with varying functional specifications to satisfy one or more applications with differing requirements. To further enhance infrastructure resilience, the plan will also consider approaches to integrate and use multiple PNT services including GNSS services.

Questions To Inform R&D Plan Development

The SRST seeks a better understanding of current PNT efforts and challenges, how PNT services may be used in the future, and what R&D activities could be beneficial for improving overall system resilience. In responding to the questions below, please consider the priority PNT R&D needs specifically directed towards developing resilient, non-GNSS dependent services and equipment, and the role of the Federal government in executing or encouraging the appropriate R&D activities. Resilience is desired in the overall system, which includes sources of PNT, distribution means, augmentation methods, and user equipment. Resilient systems have protections, mitigations, and responses that allow for continued proper system functioning or recovery within an

acceptable time period during major disruptions.

1. (a) How will PNT services be used over the next ten years? (b) What values for precision and integrity for non-GNSS dependent systems over the same timeframe will support assured PNT services and why? (c) Similarly, what level of synchronization to Coordinated Universal Time (UTC) is anticipated to be needed?

2. What may affect or prevent the adoption, integration, and operation of resilient PNT services and equipment?

3. (a) What system architectures or concepts could be conducive for PNT system resilience? (b) What features or capabilities in equipment or systems could provide effective protections or mitigations against interference or manipulation? (c) Which principles of cybersecurity may be leveraged to achieve this? (d) What challenges may occur in integrating and using multiple PNT services within user equipment?

4. What R&D activities are currently being conducted, or planned, to develop non-GNSS dependent PNT services or equipment, or to improve the resilience of PNT services or equipment?

5. (a) What knowledge or capability gaps currently exist that, if filled, could contribute to improving resilience? (b) What R&D activities are best suited to help fill these gaps? (c) What role does the Federal government have to encourage and collaborate on these activities?

6. What additional information or suggestions could help inform the development of the R&D plan?

Thank you for taking the time to respond to this Request for Information. We appreciate your input.

Dated: August 3, 2020.

Sean Bonyun,

Chief of Staff, The White House Office of Science and Technology Policy.

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89476; File No. SR–BX–2020–017]

Self-Regulatory Organizations; Nasdaq BX, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Various BX Rules in Connection With a Technology Migration

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 23, 2020, Nasdaq BX, Inc. (''BX'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Options 1, Section 1 (Definitions); Options 2, Section 4 (Obligations of Market Makers and Lead Market Makers); Options 2, Section 5 (Market Maker Quotations); Options 3, Section 5 (Entry and Display of Orders); Options 3, Section 7 (Types of Orders and Quote Protocols); Options 3, Section 10 (Order Book Allocation); Options 3, Section 13 (Price Improvement Auction (''PRISM'')); Options 3, Section 22 (Limitations on Order Entry); and Options 3, Section 23 (Data Feeds and Trade Information). The Exchange also proposes to adopt a new Options 3, Section 12 titled ''Crossing Orders.''

The text of the proposed rule change is available on the Exchange's website at *https://listingcenter.nasdaq.com/rulebook/bx/rules,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Options 1, Section 1 (Definitions); Options 2, Section 4 (Obligations of Market Makers and Lead Market Makers); Options 2, Section 5 (Market Maker Quotations); Options 3, Section 5 (Entry and Display of Orders); Options 3, Section 7 (Types of Orders and Quote Protocols); Options 3, Section 10 (Order Book Allocation); Options 3, Section 13 (Price Improvement Auction (''PRISM'')); Options 3, Section 22 (Limitations on Order Entry); and Options 3, Section 23 (Data Feeds and Trade Information) and adopt a new Options 3, Section 12 titled ''Crossing Orders'' in connection with a technology migration to an enhanced Nasdaq, Inc. (''Nasdaq'') functionality which results in higher performance, scalability, and more robust architecture. With this system migration, the Exchange intends to adopt certain trading functionality currently utilized at Nasdaq Exchanges.

The Exchange intends to begin implementation of the proposed rule change prior to October 30, 2020. The Exchange will issue an Options Trader Alert to Participants to provide notification of the symbols that will migrate, the relevant dates and operative dates for specific functionalities.

Options 1, Section 1

The Exchange proposes to amend the definition of ''Public Customer'' to conform to Nasdaq PHLX LLC's (''Phlx'') definition at Options 1, Section 1(b)(46). The Exchange believes that making clear that a Public Customer could be a person or entity and stating that a Public Customer is not a Professional, as defined within Options 1, Section 1(a)(48),[3] will make clear what it meant by that term. Today, a Public Customer is not a Professional. The term ''Professional'' is separately defined, within BX Options 1, Section 1(a)(48). In order to properly represent orders entered on the Exchange, Participants are required to indicate whether orders are ''Professional Orders.'' To comply with this requirement, Participants are required to review their Public Customers' activity on at least a quarterly basis to determine whether orders, that are not for the account of a broker-dealer, should be represented as Public Customer Orders or Professional Orders.[4] A Public

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] BX Options 1, Section 1(a)(48) provides that, ''The term ''Professional'' means any person or entity that (i) is not a broker or dealer in securities, and (ii) places more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s). A Participant or a Public Customer may, without limitation, be a Professional. All Professional orders shall be appropriately marked by Participants.''

[4] Participants conduct a quarterly review and make any appropriate changes to the way in which they are representing orders within five days after the end of each calendar quarter. While Participants

Customer may be a Professional, provided they meet the requirements specified within BX Options 1, Section 1(a)(48). If the Professional definition is not met, the order is treated as a Public Customer order.

The Exchange also proposes to remove a sentence within Options 1, Section 1(a)(48) which provides, ''A Participant or a Public Customers may, without limitation, be a Professional.'' This sentence is confusing, unnecessary, and adds no information to this defined term. Phlx Options 1, Section 1(b)(46) does not contain a similar sentence. BX proposes removing this sentence.

The Exchange also proposes to remove sentences, within Options 3, Sections 10(a)(1)(C)(1)(a) and 10(a)(2)(i), Options 3, Section 13, in the introductory paragraph, and Options 3, Sections 13(ii)(E)(1) and (F)(1), which allocation and PRISM rules, respectively, provide that a Public Customer does not include a Professional. Today, the definition of a Public Customer does not explicitly exclude a Professional. The language that the Exchange proposes to delete currently indicates that Professionals would not be treated the same as a Public Customer in terms of priority and, therefore, would not receive the same allocation that is reserved for Public Customer orders. Since BX is amending the definition of a Public Customer to explicitly exclude Professionals, the language in the PRISM and allocation rules are no longer necessary to distinguish these two types of market participants.

Bid/Ask Differentials

Currently, BX Market Maker intra-day quoting requirements, within Options 2, Section 5(d)(2), provide,

Bid/ask Differentials (Quote Spread Parameters). Options on equities (including Exchange-Traded Fund Shares), and on index options must be quoted with a difference not to exceed $5 between the bid and offer regardless of the price of the bid, including before and during the opening. However, respecting in-the-money series where the market for the underlying security is wider than $5, the bid/ask differential may be as wide as the spread between the national best bid and offer in the underlying security. The Exchange may establish differences other than the above for one or more series or classes of options.

The Exchange proposes to amend BX Options 2, Section 5(d)(2) to add the words ''Intra-Day'' before the title ''Bid/ask Differentials (Quote Spread Parameters)'' to make clear that these requirements are intra-day. Additionally the Exchange is deleting the words ''including before and during the opening.'' The bid/ask differentials, within BX Options 2, Section 5(d)(2), will apply intra-day only. The bid/ask differentials applicable to the opening are noted within current Options 3, Section 8(a)(6).[5] It is not necessary to discuss the opening bid/ask differentials within Options 2, Section 5, as those differentials are set forth within current Options 3, Section 8(a)(6).[6] The bid/ask differentials, within BX Options 2, Section 5(d)(2), will apply intra-day only.

The Exchange also proposes to amend BX Rules at Options 2, Section 4(f)(4)–(6) (Obligations of Market Makers and Lead Market Makers), which specify quoting requirements for Lead Market Makers. Today, BX's Rules at Options 2, Section 4(f)(4)–(6) provides,

(4) Options traded on the Trading System may be quoted with a difference not to exceed $5 between the bid and offer regardless of the price of the bid.

(5) BX Regulation may establish quote width differences other than as provided in subparagraph (iv) for one or more options series.

(6) In the event the bid/ask differential in the underlying security is greater than the bid/ask differential set forth in subsections (f)(4) and (5), the permissible price differential for any in-the-money option series may be identical to those in the underlying security market. In the case of the at-the-money and out-of-the-money series, BX Regulation may waive the requirements of subsections (f)(4) and (5) on a case-by-case basis when the bid/ask differential for the underlying security is greater than .50. In such instances, the bid/ask differentials for the at-the-money series and the out-of-the-money series may be half as wide as the bid/ask differential in the underlying security in the primary market. Exemptions from subsections (f)(4) and (5) are subject to Exchange review. BX Regulation must file a report with BX operations setting forth the time and duration of such exemptive relief and the reasons therefore.

Today, Options 2, Section 4(f)(5) indicates that Exchange may establish other quote differences. Options 2, Section 4(f)(6) explains the manner in which such quote differences may be established by the Exchange. BX proposes to amend BX's Lead Market Maker quoting requirements by conforming the rule to proposed BX Options 2, Section 5(d)(2), which applies to BX Market Makers. Specifically, the Exchange proposes to replace Options 2, Section 4(f)(4)–(6) with the same rule text proposed, within BX Options 2, Section 5(d)(2), in order that BX Market Makers and Lead Market Makers have the same standards apply to their intra-day quotes.

With this change, BX would continue to require Lead Market Makers to quote with a difference not to exceed $5 between the bid and offer regardless of the price of the bid. However, instead of requiring Lead Market Makers to quote a price differential for any in-the-money option series identical to those in the underlying security market, in the event the bid/ask differential in the underlying security is greater than the bid/ask differential set forth in subsections (f)(4) and (5), the Exchange would now permit the bid/ask differential to be as wide as the spread between the national best bid and offer in the underlying security when the market for the underlying security is wider than $5, as is the case today for BX Market Makers. This amendment would permit Lead Market Makers to quote as wide as Market Makers on BX quote today.[7] Further, the Exchange would have discretion, as on other options markets, to widen the bid/ask differential.[8]

only will be required to review their accounts on a quarterly basis, if during a quarter the Exchange identifies a customer for which orders are being represented as Public Customer Orders but that has averaged more than 390 orders per day during a month, the Exchange will notify the Participant and the Participant will be required to change the manner in which it is representing the customer's orders within five days.

[5] Current BX Options 3, Section 8(a)(6) provides, ''Valid Width National Best Bid or Offer'' or ''Valid Width NBBO'' shall mean the combination of all away market quotes and any combination of BX Options-registered Market Maker orders and quotes received over the SQF Protocols within a specified bid/ask differential as established and published by the Exchange. The Valid Width NBBO will be configurable by underlying, and tables with valid width differentials will be posted by BX on its website. Away markets that are crossed will void all Valid Width NBBO calculations. If any Market Maker orders or quotes on BX Options are crossed internally, then all such orders and quotes will be excluded from the Valid Width NBBO calculation.''

[6] *Id.*

[7] Phlx Options 2, Section 4(c)(1) describes bid/ask differential requirements for Market Makers and Lead Market Makers on Phlx. Phlx's standards are similar to the standards proposed for BX Lead Market Makers. Phlx Options 2, Section 4(c)(1) provides, ''Options on equities (including Exchange-Traded Fund Shares), index options and options on U.S. dollar-settled FCOs may be quoted electronically with a difference not to exceed $5 between the bid and offer regardless of the price of the bid, provided that the foregoing bid/ask differentials shall not apply to in-the-money series where the market for the underlying security is wider than the differentials set forth above. For such series, the bid/ask differentials may be as wide as the spread between the national best bid and offer in the underlying security, or its decimal equivalent rounded down to the nearest minimum increment. The Exchange may establish differences other than the above for one or more series or classes of options.''

[8] Today, all options exchanges grant relief to market making participants, based on current market conditions, to enable those participants to provide liquidity in the marketplace without the need to constantly refresh their quotes to balance their risk in markets where stock prices are unstable. *See https://www.miaxoptions.com/alerts;*

Continued

As proposed, the Exchange would remove the rule text which describes the additional allowance for at-the-money and out-of-the-money series, where BX Regulation may waive the requirements of subsections (f)(4) and (5) on a case-by-case basis when the bid/ask differential for the underlying security is greater than .50. In these cases, pursuant to paragraph (f)(6), the bid/ask differentials for the at-the-money series and the out-of-the-money series may be half as wide as the bid/ask differential in the underlying security in the primary market. Today, exemptions from subsections (f)(4) and (5) are subject to Exchange review.[9] The additional allowance and exemptions are no longer necessary because the Exchange proposes to add rule text, similar to BX Options 2, Section 4(f)(5) and BX Options 5, Section 5(d)(2), which permits BX to establish differences other than the stated bid/ask differentials, for one or more series or classes of options. The ability to establish differences, other than the stated bid/ask differentials, for one or more series or classes of options already exists today for BX Lead Market Maker quoting requirements, however this discretion is limited by BX Options 2, Section 4(f)(6).[10] The Exchange's proposal would align the procedure BX would follow with procedures of other Nasdaq options exchanges, which notify members in writing, via an Options Regulatory Alert, of any discretion that is being granted by the Exchange. BX would no longer file a report with BX operations. Today, no other Nasdaq exchange files a report when it grants exemptions, including exemptions for BX Market Makers. Decisions to grant exemptions are made based on current market conditions. BX is required to react swiftly when market conditions change dramatically and, thereby, may require BX to grant quoting relief. The additional steps that are currently required on BX are not conducive to granting relief in fast changing markets. In addition, the proposed quoting requirements for BX Lead Market Makers and Market Makers is consistent with requirements on other Nasdaq Affiliated Markets that have both Lead Market Makers and Market Makers.[11] Other options markets do not limit the quote relief they would grant their lead market makers in the same manner as BX limits quote relief for its Lead Market Makers. Today, BX limits its Lead Market Makers to quote relief which may not be greater than half as wide as the bid/ask differential.[12]

Options 3, Section 5

The Exchange proposes to amend Options 3, Section 5(c) to add additional rule text similar to Phlx Options 3, Section 5(c). BX's current Options 3, Section 5(c) states, ''The System automatically executes eligible orders using the Exchange's displayed best bid an offer (''BBO'').'' The Exchange proposes to state, ''The System automatically executes eligible orders using the Exchange's displayed best bid and offer (''BBO'') or the Exchange's non-displayed order book (''internal BBO'') if the best bid and/or offer on the Exchange has been repriced pursuant to subsection (d) below.'' Today, BX re-prices certain orders to avoid locking and crossing away markets, consistent with its Trade-Through Compliance and Locked or Crossed Markets obligations.[13] Orders which lock or cross an away market will automatically re-price one minimum price improvement inferior to the original away best bid/offer price to one minimum trading increment away from the new away best bid/offer price or its original limit price.[14] The re-priced order is displayed on OPRA. The order remains on BX's Order Book and is accessible at the non-displayed price. For example, a limit order may be accessed on BX by a Participant if the limit order is priced better than the NBBO. The Exchange believes that the addition of this rule text will allow BX to define an ''internal BBO'' within its rules when describing re-priced orders that remain on the Order Book and are available at non-displayed prices, which are resting on the Order Book.

Options 3, Section 7

The Exchange proposes to amend the Cancel-Replacement Order, within Options 3, Section 7(a)(1). By way of background with respect to cancelling and replacing an order, a Participant has the option of either submitting a cancel order and then separately submitting a new order, which serves as a replacement of the original order, in two separate messages, or submitting a single cancel and replace order in one message (''Cancel-Replacement Order''). Submitting a cancel order and then separately submitting a new order will not retain the priority of the original order.

Currently, the rule text for Cancel-Replacement Order provides, ''Cancel-Replacement Order shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order with new terms and conditions. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will not retain the priority of the cancelled order except when the replacement order reduces the size of the order and all other terms and conditions are retained.'' The Exchange proposes to replace the words ''shall mean'' with ''is'' and remove the final sentence of the rule text.[15] The Exchange proposes to add a new sentence to the end of the rule which provides, ''The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, and the size is not increased.'' Unlike the sentence proposed for deletion, the proposed sentence states in the affirmative the conditions under which the Cancel-Replacement Order will retain priority. Price and size are the terms that will determine if the Cancel-Replacement Order retains its priority, as is the case today, other terms and conditions do not amend the priority of the Cancel-Replacement Order.

The Exchange is not amending the current System functionality of a

http://markets.cboe.com/us/options/notices/system/; https://boxoptions.com/system-alerts/ and *https://www.nyse.com/market-status/history.*

[9] BX Regulation must file a report with BX operations setting forth the time and duration of such exemptive relief and the reasons therefore.

[10] *See* BX Options 2, Section 4(f)(5).

[11] *See* Phlx at Options 2, Section 4(c) and ISE, GEMX and MRX Rules at Options 2, Section 4(b)(4). ISE, GEMX and MRX utilize the term Primary Market Maker instead of Lead Market Maker.

[12] *See* ISE and GEMX at Options 2, Section 5, Miami International Securities Exchange LLC Rule 503(e)(2), BOX Exchange LLC Rule 8040 and NYSE American LLC Rule 925NY(b)(5) and (c).

[13] BX Options 3, Section 5(d) provides, ''An order will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. An order that is designated by the member as routable will be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions. An order that is designated by a member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions. If, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.''

[14] *See* Options 5, Section 4 (Order Routing), which describes the repricing of orders for both routable and non-routable orders within Options 5, Section 4(a)(iii)(A), (B) and (C).

[15] The final sentence of current BX Options 3, Section 7(a)(1) provides, ''The replacement order will not retain the priority of the cancelled order except when the replacement order reduces the size of the order and all other terms and conditions are retained.''

Cancel-Replacement Order with respect to the terms that will cause the order to lose priority. Both today, and with the proposed change, if a Participant did not change the size of the order, it would not trigger a loss in priority. Today the Exchange's rule describes changes to priority with respect to reducing size. The proposed rule describes changes to priority with respect to increasing size. If the Participant does not change the size of the order, a consideration of loss in priority is not relevant. The rule is intended to provide transparency regarding changes to an a Cancel-Replacement Order which would trigger a loss in priority. Today, and with the proposal, the price of the order may not be changed when submitting a Cancel-Replacement Order; that would be a new order.

The Exchange further proposes to provide, ''If the replacement portion of a Cancel-Replacement Order does not satisfy the System's price or other reasonability checks (*e.g.* Limit Order Price Protection and Market Order Spread Protection, within Options 3, Section 15(a)(1) and (a)(2), respectively); the existing order shall be cancelled and not replaced.'' The Limit Order Price Protection and Market Order Spread Protection are the only risk protections within Options 3, Section 15 (Risk Protections) that are applicable. Price or other reasonability checks consider the current market at the time the Cancel-Replacement Order is entered. The Exchange proposes to begin applying price or other reasonability checks to all Cancel-Replacement Orders, similar to Nasdaq ISE, LLC (''ISE''), Nasdaq GEMX, LLC (''GEMX'') and Nasdaq MRX, LLC (''MRX'') to provide market participants with additional risk protection checks with the re-entry of the Cancel-Replacement Order. This proposed rule is similar to ISE, GEMX and MRX Rules at Options 3, Section 7 at Supplementary Material .02, except that ISE, GEMX and MRX discuss Reserve Orders, which are not available on BX.[16] All risk protections are noted within Options 3, Section 15. Those risk protections apply throughout the Rulebook, except where otherwise noted.

The Exchange proposes to amend ''Directed Order,'' within Options 3, Section 7(a)(2). The Exchange proposes to remove the text, ''Directed Order, The term'' and replace ''means'' with ''is.'' These amendments are technical and non-substantive. The Exchange is otherwise not amending the Directed Order rule text.

The Exchange proposes to amend ''Limit Order,'' within Options 3, Section 7(a)(3). The Exchange proposes to style ''Limit Orders'' in the singular and change ''are'' to ''is an'' and ''orders'' to ''order.'' A Limit Order on BX operates in the same manner as a Limit Order on ISE, GEMX and MRX. The Exchange proposes to conform the rule text of BX's Limit Order to ISE, GEMX and MRX Options 3, Section 7(b) and add the sentence describing marketable limit orders. The Exchange proposes to state, ''A marketable limit order is a limit order to buy (sell) at or above (below) the best offer (bid) on the Exchange.'' The Exchange believes that the rule amendment more aptly describes a marketable limit order as compared to the current rule text, which is confusing, but was intended to convey the substance of the proposed text. The new sentence does not substantively amend the current rule text.

The Exchange proposes to amend ''Minimum Quantity Orders,'' within Options 3, Section 7(a)(4). The Exchange proposes to style ''Minimum Quantity Orders'' in the singular and change ''are'' to ''is an'' and ''orders'' to ''order.'' These amendments are technical and non-substantive. The Exchange is otherwise not amending the Minimum Quantity Order rule text.

The Exchange proposes to amend ''Market Orders,'' within Options 3, Section 7(a)(5). The Exchange proposes to style ''Market Orders'' in the singular and change ''are'' to ''is an'' and ''orders'' to ''order.'' These amendments are technical and non-substantive. The Exchange also proposes to add a notation at the end of the rule to make clear that ''Participants can designate that their Market Orders not executed after a pre-established period of time, as established by the Exchange, will be cancelled back to the Participant, once an option series has opened for trading.'' Market Orders submitted during the opening may be executed, routed (depending on instructions from the market participant) or cancelled if the Market Order is priced through the opening price. The Exchange would only cancel those Market Orders that remained on the Order Book once an option series opened. The pre-established period of time would commence once the intra-day trading session begins for that options series and the order would be cancelled back to the Participant, provided the Participant elected to cancel back its Market Orders. The Exchange proposes to make clear that while the opening is on-going, and the intra-day trading session has not commenced, the pre-established period of time would not commence. Further, the Exchange proposes to note that ''Market Orders on the Order Book would be immediately cancelled if an options series halted, provided the Participant designated the cancellation of Market Orders.'' Once an options series halts for trading, the Exchange conducts another Opening Process. In the case where a Market Order was resting on the Order Book, and the Participant had designated the cancellation of Market Orders, in the event of a halt, the Market Orders resting on the Order Book would immediately cancel. The Exchange believes that this additional rule text brings greater clarity to the Market Order type.[17]

The Exchange proposes to amend ''Intermarket Sweep Order'' or ''ISO,'' within Options 3, Section 7(a)(6). Today, the rule text provides,

(6) ''Intermarket Sweep Order'' or ''ISO'' are limit orders that are designated as ISOs in the manner prescribed by BX and are executed within the System by Participants at multiple price levels without respect to Protected Quotations of other Eligible Exchanges as defined in Options 5, Section 1. ISOs may have any time-in-force designation except WAIT, are handled within the System pursuant to Options 3, Section 10 and shall not be eligible for routing as set out in Options 3, Section 19. ISOs with a time-in-force designation of GTC are treated as having a time-in-force designation of Day.

(1) Simultaneously with the routing of an ISO to the System, one or more additional limit orders, as necessary, are routed by the entering party to execute against the full displayed size of any protected bid or offer (as defined in Options 5, Section 1) in the case of a limit order to sell or buy with a price that is superior to the limit price of the limit order identified as an intermarket

[16] ISE, GEMX and MRX Options 3, Section 7 at Supplementary Material .02, provides, ''Cancel and Replace Orders shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, size is not increased, or in the case of Reserve Orders, size is not changed. If the replacement portion of a Cancel and Replace Order does not satisfy the System's price or other reasonability checks (*e.g.* Options 3, Section 15(b)(1)(A) and (b)(1)(B); and Supplementary Material .07 (a)(1)(A), (b) and (c)(1) to Options 8, Section 14) the existing order shall be cancelled and not replaced.''

[17] *See* The Nasdaq Options Market (''NOM'') Rules at Options 3, Section 7(a)(4), which provides, ''Market Orders'' are orders to buy or sell at the best price available at the time of execution. Participants can designate that their Market Orders not executed after a pre-established period of time, as established by the Exchange, will be cancelled back to the Participant.''

sweep order (as defined in Options 5, Section 1). These additional routed orders must be identified as ISOs.

The Exchange proposes to replace the current rule, within Options 3, Section 7(a)(6), with the following text to describe an ISO Order, ''is a Limit Order that meets the requirements of Options 5, Section 1(8). Orders submitted to the Exchange as ISO are not routable and will ignore the ABBO and trade at allowable prices on the Exchange. ISOs may be entered on the Order Book or into the PRISM Mechanism pursuant to Options 3, Section 13(ii)(K). ISOs must have a time-in-force designation of Immediate-or-Cancel. ISO Orders may not be submitted during the opening.'' This rule text is identical to Phlx Options 3, Section 7(b)(3), except that BX Rules provide that an ISO must have a time-in-force designation of Immediate-or-Cancel, as proposed.

The Phlx rules do not have this restriction on ISO Orders.[18] An ISO Order is a Limit Order, as noted in the current text and Options 5, Section 1 continues to be referenced in the proposed text. The Exchange continues to note that the orders are not routable. The additional text, ''. . . will ignore the ABBO and trade at allowable prices on the Exchange'' is more precise than the current rule text and describes current functionality. The Exchange further proposes to state, ''ISOs maybe entered on the Order Book or into the PRISM Mechanism pursuant to Options 3, Section 13(ii)(K).'' That is also the case today. The remainder of the current rule text is not necessary as Options 5, Section 1 is cited. Removing the current rule text and replacing it with rule text similar to Phlx, is not proposed to change the functionality of an ISO Order. The proposed text merely describes the ISO Order similar to Phlx. The Exchange believes the proposed description provides a more succinct description.

The Exchange does propose to amend the current functionality of an ISO Order to require that ISOs have a time-in-force designation of Immediate-or-Cancel (''IOC'') within Options 3, Section 7(b)(2). Today, the rule provides that ISOs may have any time-in-force designation, except WAIT, and further requires that ISOs with a time-in-force designation of GTC are treated as having a time-in-force designation of Day.[19] With this proposal, the Exchange would only continue to allow a time-in-force of IOC. The Exchange proposes to remove the WAIT time-in-force within this proposed rule change and, therefore, WAIT no longer needs to be cited. The Exchange is proposing a TIF designation of IOC for an ISO Order, which would cause an ISO Order to cancel in whole or in part upon receipt, in the event that the ISO Order does not execute or does not entirely execute, because an ISO is generally used when trying to sweep a price level across multiple exchanges in an effort to post the balance of an order without locking an away market. ISO Orders have a limited purpose and should be cancelled if they do not execute or do not entirely execute.

The Exchange proposes to no longer offer the ''One-Cancels-the-Other Order.'' The Exchange will no longer permit this order type with the technology migration. This order type is not in demand on BX. The Exchange would file a rule change with the Commission if it decides to offer this order type in the future.

The Exchange proposes to amend the ''All-or-None Order,'' within Options 3, Section 7(a)(8). The Exchange proposes to renumber this rule text as Options 3, Section 7(a)(7) The Exchange proposes to replace ''shall mean'' with ''is'' and change ''opening cross'' to simply ''opening.'' These proposed amendments are technical and non-substantive.

The Exchange proposes to add a ''PRISM Order'' to the list of order types at proposed Options 3, Section 7(a)(10). The Exchange proposes to define this existing order type by cross-referencing Options 3, Section 13, which explains the order type.

The Exchange proposes to add a ''Customer Cross Order'' to the list of order types at proposed Options 3, Section 7(a)(11). The Exchange proposes to define this existing order type by cross-referencing Options 3, Section 12(a), which explains the order type.

The Exchange proposes to amend Options 3, Section 7(b) to define ''Time in Force'' as ''TIF''.

The Exchange proposes to amend an ''Immediate-Or-Cancel'' Order or ''IOC,'' within Options 3, Section 7(b)(2) to add hyphens and make ''Or'' lowercase. The Exchange proposes to remove the current description which provides that an IOC Order, ''shall mean for orders so designated, that if after entry into the System a marketable order (or unexecuted portion thereof) becomes non-marketable, the order (or unexecuted portion thereof) shall be canceled and returned to the entering participant. IOC Orders shall be available for entry from the time prior to market open specified by the Exchange on its website until market close and for potential execution from 9:30 a.m. until market close. IOC Orders entered between the time specified by the Exchange on its website and 9:30 a.m. Eastern Time will be held within the System until 9:30 a.m. at which time the System shall determine whether such orders are marketable.'' The Exchange proposes to replace this description with rule text similar to Phlx Options 3, Section 7(c)(2) as these order types are identical. The Exchange proposes to state that an Immediate-or-Cancel Order or ''IOC'' Order is a Market Order or Limit Order to be executed in whole or in part upon receipt. Any portion not so executed is cancelled. Further, with respect to IOC Orders,

(A) Orders entered with a TIF of IOC are not eligible for routing.

(B) IOC orders may be entered through FIX or SQF, provided that an IOC Order entered by a Market Maker through SQF is not subject to the Limit Order Price Protection or the Market Order Spread Protection in Options 3, Section 15(a)(1) and (a)(2), respectively;

(C) Orders entered into the Price Improvement Auction (''PRISM'') Mechanism are considered to have a TIF of IOC. By their terms, these orders will be: (1) Executed after an exposure period, or (2) cancelled.

Options 5, Section 4(a) provides, that IOC Orders will be cancelled immediately if not executed, and will not be routed. The Exchange is proposing to memorialize this information within the description of an IOC Order. The Exchange also proposes to note that IOC Orders may be entered through FIX or SQF.[20] The Exchange

[18] Phlx Options 3, Section 7(b)(3) provides, ''Intermarket Sweep Order. An Intermarket Sweep Order (ISO) is a Limit Order that meets the requirements of Options 5, Section 1. Orders submitted to the Exchange as ISO are not routable and will ignore the ABBO and trade at allowable prices on the Exchange. ISOs may be entered on the regular order book or into PIXL pursuant to Options 3, Section 13 (b)(11). ISO Orders may not be submitted during the Opening Process pursuant to Options 3, Section 8.''

[19] Today, BX's System does not treat an ISO with a time-in-force designation of GTC as having a time-in-force designation of Day, as provided for within BX's current rule at Options 3, Section 7(a)(6). The Exchange's proposed amendment would prevent ISOs from having any designation, other than IOC.

[20] BX Options 3, Section 7(d)(1)(A) notes that orders may be entered through FIX and Options 3, Section 7(d)(1)(B) specifies that ''Immediate-or-Cancel Orders may be entered through SQF.

''Financial Information eXchange'' or ''FIX'' is described in Options 3, Section 7(d)(1)(A) as an interface that allows Participants and their Sponsored Customers to connect, send, and receive messages related to orders and auction orders and responses to and from the Exchange. Features include the following: (1) Execution messages; (2) order messages; and (3) risk protection triggers and cancel notifications.

''Specialized Quote Feed'' or ''SQF'' is described in Options 3, Section 7(d)(1)(B) as an interface that allows Market Makers to connect, send, and receive messages related to quotes, Immediate-or-Cancel Orders, and auction responses into and from the Exchange. Features include the following: (1)

also proposes to note that an IOC Order entered by a Market Maker through SQF is not subject to the Limit Order Price Protection or the Market Order Spread Protection in Options 3, Section 15(a)(1) and (a)(2), respectively. The Order Price Protection and Market Order Spread Protection, while available for orders, are not available on SQF. These exceptions are provided for within this proposed rule to ensure that this information is available to market participants within the description of IOC.

The Exchange proposes to add rule text to the SQF protocol, within proposed Options 3, Section 7(e)(1)(B), which provides, ''Immediate-or-Cancel Orders entered into SQF are not subject to the Limit Order Price Protection or the Market Order Spread Protection in Options 3, Section 15(a)(1) and (a)(2), respectively.'' Adding this exception to the SQF protocol as well as the TIF of ''IOC'' will make clear that these order protections shall not apply to IOC Orders entered through SQF.

Also, the proposed rule would also specify that orders entered into the PRISM Mechanism are considered to have a TIF of IOC. By their terms, these orders will be: (1) Executed after an exposure period, or (2) cancelled.[21] The Exchange believes that adding these new details to the manner in which IOC Orders are handled within the System will bring greater transparency to these order types.

The Exchange proposes to amend the TIF of ''DAY'' at Options 5, Section 7(b)(3) to remove the words ''shall mean for orders'' and add ''is an order'' to conform the rule text to other text in this rule. The Exchange also proposes to conform the description of a TIF of ''DAY'' similar to Phlx Options 3, Section 7(c)(1).[22] The Exchange believes that the remainder of the description for a Day Order, ''if after entry into the System, the order is not fully executed, the order (or unexecuted portion thereof) shall remain available for potential display and/or execution until market close, unless canceled by the entering party, after which it shall be returned to the entering party. Day Orders shall be available for entry from the time prior to market open specified by the Exchange on its website until market close and for potential execution from 9:30 a.m. until market close,'' is unnecessarily verbose and proposes to remove this rule text. The Exchange proposes to state, ''Day'' is an order entered with a TIF of ''Day'' that expires at the end of the day on which it was entered, if not executed. All orders by their terms are Day Orders unless otherwise specified. Day Orders may be entered through FIX. A Day Order on Phlx functions in the same way as a Day Order on BX. The Phlx rule text is more succinct in describing this order type.

The Exchange proposes to amend the TIF of ''Good Til Cancelled'' or ''GTC'' at Options 5, Section 7(b)(4). The Exchange proposes to remove the words ''shall mean for orders'' and add ''is an order.'' The Exchange also proposes to conform the rule text similar to Phlx Options 3, Section 7(c)(4),[23] and provide that a ''Good Til Cancelled'' or ''GTC'' is ''an order entered with a TIF of ''GTC'' that, if not fully executed, will remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open specified by the Exchange until market close.'' The Exchange would remove the rule text which provides, ''that if after entry into System, the order is not fully executed, the order (or unexecuted portion thereof) shall remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open specified by the Exchange on its website until market close and for potential execution from 9:30 a.m. until market close.'' A GTC Order on Phlx functions in the same way as a GTC Order on BX. The Exchange is not proposing to amend the functionality of a GTC Order, rather the Exchange believes the proposed description is more succinct.

The Exchange proposes to no longer offer a TIF of ''WAIT.'' The Exchange would remove the rule text at BX Options 3, Section 7(b)(5). If the Exchange desires to offer this TIF in the future, it would file a proposed rule change with the Commission pursuant to Section 19(b)(1) of the Act.[24]

The Exchange proposes to note, within BX Options 3, Section 7(c), the various routing options which are available. The Exchange proposes to add rule text which provides, ''Routing Strategies. Orders may be entered on the Exchange with a routing strategy of FIND, SRCH or Do-Not-Route (''DNR'') as provided in Options 5, Section 4 through FIX only.'' These routing strategies are consistent with a recent rule change filed to amend routing strategies.[25]

Finally, the Exchange proposes to re-letter current Options 3, Section 7(c) and (d).

Options 3, Section 10

The Exchange proposes to amend its Order Book allocation rule, within Options 3, Section 10, to amend the manner in which rounding occurs.

Today, BX rounds up or down to the nearest integer when it allocates and any residual contract after rounding, if rounding would result in an allocation of less than one contract, would be allocated to the Lead Market Maker. The Exchange is amending the rounding methodology to round up to the nearest integer. Options 3, Section 10 is being amended to reflect the new methodology. Each exchange has a different rounding methodology.[26] The Exchange is opting to round up and not down, uniformly for all Participants, and disclose that rounding methodology directly within Options 3, Section 10, so that all Participants are aware of the rounding methodology that would be utilized by the System. Today, rounding is down, as specified in the Exchange's Rules. In addition, if the result of an allocation is not a whole number, it will now be rounded up to the nearest whole number instead of down. Finally, with respect to rounding, because it is rounding up, the provisions which describe allocations for remainders of

Options symbol directory messages (e.g underlying instruments); (2) system event messages (*e.g.,* start of trading hours messages and start of opening); (3) trading action messages (*e.g.,* halts and resumes); (4) execution messages; (5) quote messages; (6) Immediate-or-Cancel Order messages; (7) risk protection triggers and purge notifications; (8) opening imbalance messages; (9) auction notifications; and (10) auction responses. The SQF Purge Interface only receives and notifies of purge request from the Market Maker. Market Makers may only enter interest into SQF in their assigned options series.

[21] The TIF of IOC is applied to all PRISM Orders today.

[22] Phlx Options 3, Section 7(c)(1) provides, ''Day. If not executed, an order entered with a TIF of ''Day'' expires at the end of the day on which it was entered. All orders by their terms are Day Orders unless otherwise specified. Day orders may be entered through FIX.''

[23] Phlx Options 3, Section 7(c)(4) provides, ''A Good Til Cancelled (''GTC'') Order entered with a TIF of GTC, if not fully executed, will remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open specified by the Exchange until market close.''

[24] 15 U.S.C. 78s(b)(1).

[25] The Exchange separately filing to amend the routing strategies and adopt ''FIND''. *See* SR–BX–2020–7P.

[26] Phlx rounds down. *See* Options 3, Section 10. *See also* Securities Exchange Act Release No. 85876 (May 16, 2019), 84 FR 23595 (May 22, 2019) (SR–Phlx–2019–20) (Notice of Filing of Proposed Rule Change Relating to the Allocation and Prioritization of Automatically Executed Trades.

less than one contract cannot occur and therefore this rule text is being removed, as such remainders would not be mathematically possible. The Exchange believes that rounding up uniformly is consistent with the Act because it provides for the equitable allocation of contracts among the Exchange's market participants. The Exchange proposes to provide market participants with transparency as to the number of contracts that they are entitled to receive as the result of rounding. Further, the Exchange believes that this methodology produces an equitable outcome during allocation that is consistent with the protection of investors and the public interest because all market participants are aware of the methodology that will be utilized to calculate outcomes for allocation purposes.

Options 3, Sections 12 and 22

Today, the Exchange permits an Initiating Participant to enter a PRISM Order for the account of a Public Customer paired with an order for the account of a Public Customer and such paired orders will be automatically executed without a PRISM Auction.[27] The execution price for such a PRISM Order must be expressed in the quoting increment applicable to the affected series. Such an execution may not trade through the NBBO or trade at the same price as any resting Public Customer order.[28] The Exchange proposes to remove the ability to enter Public Customer-to-Public Customer paired orders directly into PRISM for automatic execution and instead require them to be entered through FIX, directly as Customer Cross Orders. Today, a Public Customer-to-Public Customer paired order could only be entered into PRISM to receive the treatment described within proposed Options 3, Section 13(vi). With this proposal, the manner in which Public Customer-to-Public Customer paired orders are being processed by the System is changing. With this proposal, Participants may enter Public Customer-to-Public Customer paired orders directly into FIX and receive the same treatment that these orders receive today when entered into PRISM. The only difference to a Participant is the manner in which the order must now be submitted, via FIX, to post a Public Customer-to-Public Customer Cross.

The Exchange proposes to adopt the term ''Crossing Orders'' within Options 3, Section 12, which is currently reserved, to describe this process. Today, ISE, GEMX and MRX permit Customer Cross Orders as proposed herein.[29] The Exchange proposes to adopt Customer Cross Orders, within Options 3, Section 12(a), similar to ISE, GEMX and MRX Options 3, Section 12(a) as follows:

> Public Customer-to-Public Customer Cross Orders are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Public Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO. Public Customer-to-Public Customer Cross Orders must be entered through FIX.
>
> (1) Public Customer-to-Public Customer Cross Orders will be rejected if they cannot be executed.
>
> (2) Public Customer-to-Public Customer Cross Orders may only be entered in the regular trading increments applicable to the options class under Options 3, Section 3.
>
> (3) Options 3, Section 22(b)(1) applies to the entry and execution of Customer Cross Orders.

In particular, the Exchange proposes to add a definition of a Customer Cross Order specifying that a Customer Cross Order is comprised of a Public Customer Order to buy and a Public Customer Order to sell at the same price and for the same quantity. The Exchange proposes to adopt Options 3, Section 12(a) specifying that Public Customer-to-Public Customer Cross Orders are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange. Further, the execution would not be at the same price as a Public Customer Order on the Exchange's limit order book, nor trade through the NBBO. Public Customer-to-Public Customer Cross Orders must be entered through FIX for execution pursuant to proposed Options 3, Section 12(a). As noted below in the PRISM discussion, a Public Customer-to-Public Customer order submitted into PRISM directly would be subject to execution pursuant to Options 3, Section 13(i) and (ii). The Exchange is removing the current provisions within Options 3, Section 13(vi) with this proposed rule change. The proposed rule also specifies that Public Customer-to-Public Customer Cross Orders will be rejected if they cannot be executed and Public Customer-to-Public Customer Cross Orders may only be entered in the regular trading increments applicable to the options class under Options 3, Section 3.

Current BX Options 3, Section 13(vi) provides,

> In lieu of the procedures in paragraphs (i)–(ii) above, an Initiating Participant may enter a PRISM Order for the account of a Public Customer paired with an order for the account of a Public Customer and such paired orders will be automatically executed without a PRISM Auction, provided there is not currently another auction in progress in the same series, in which case the orders will be cancelled. The execution price for such a PRISM Order must be expressed in the quoting increment applicable to the affected series. Such an execution may not trade through the NBBO or trade at the same price as any resting Public Customer order.

The Exchange is eliminating BX Options 3, Section 13(vi) because Public Customer-to-Public Customer Cross Orders would no longer be entered as PRISM Orders. With this proposal Public Customer-to-Public Customer Cross Orders would be entered through FIX as a Customer Cross Order. The prohibition expressed within current BX Options 3, Section 13(vi) provided for only one PRISM Auction to be conducted at a time in any given series. Today, to initiate the Auction, the Initiating Participant must mark the PRISM Order for Auction processing. With this proposal, Public Customer-to-Public Customer Cross Orders would not be tagged as a PRISM Auction. The Public Customer-to-Public Customer Cross Orders would be entered as a separate cross and therefore would not potentially cause more than one PRISM Auction to occur in the same series.

BX also proposes to add that Options 3, Section 22(a)(1),[30] which is similar to ISE Supplementary Material .01 to Options 3, Section 22, applies to the execution of Customer Cross Orders. In conjunction with this change, BX proposes to add Customer Cross Order to Options 3, Section 22(a) and (c) as an exception to the rules for limitations on principal transactions and solicitation orders, which require Participants to expose trading interest to the market before executing agency orders as principal or before executing agency

[27] *See* Options 3, Section 13(vi).

[28] *Id.*

[29] *See* ISE, GEMX and MRX Options 3, Section 12(a).

[30] BX Options 3, Section 22(a)(1) provides, ''This Rule prevents Options Participants from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on BX Options an opportunity to either trade with the agency order or to trade at the execution price when the Options Participant was already bidding or offering on the book. However, the Exchange recognizes that it may be possible for an Options Participant to establish a relationship with a customer or other person to deny agency orders the opportunity to interact on BX Options and to realize similar economic benefits as it would achieve by executing agency orders as principal. It will be a violation of this Rule for an Options Participant to be a party to any arrangement designed to circumvent this Rule by providing an opportunity for a customer to regularly execute against agency orders handled by the Options Participant immediately upon their entry into BX Options.''

orders against orders that were solicited from other broker-dealers.

Options 3, Section 22(a)(1) contains language similar to current BX Options 3, Section 13(vi)(A) and, therefore, would continue to prevent a Participant from executing agency orders to increase its economic gain from trading against the order without first giving other trading interests on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Participant was already bidding or offering on the book. The Exchange proposes to add a sentence to the end of current BX Options 3, Section 22(a)(1), which currently exists within BX Options 3, Section 13(vi)(A).[31] Specifically, the Exchange proposes to add ''Further, it would be a violation of this Rule for an Options Participant to circumvent this Rule by providing an opportunity for (A) a Public Customer affiliated with the Participant, or (B) a Public Customer with whom the Participant has an arrangement that allows the Participant to realize similar economic benefits from the transaction as the Participant would achieve by executing agency orders as principal, to regularly execute against agency orders handled by the firm immediately upon their entry as Public Customer-to-Public Customer immediate crosses.'' The addition of this sentence to BX Options 3, Section 22(a)(1) will continue to make clear the type of behavior that is prohibited when executing Public Customer-to-Public Customer Cross Orders. Specifically, the Exchange notes that Options 3, Section 22 may not be circumvented by providing an opportunity for (A) a Public Customer affiliated with the Participant, or (B) a Public Customer with whom the Participant has an arrangement that allows the Participant to realize similar economic benefits from the transaction as the Participant would achieve by executing agency orders as principal. The Exchange would surveil Public Customer-to-Public Customer Cross Orders in the same fashion that it already surveils for these orders on ISE, GEMX and MRX. ISE Supplementary Material .01 to Options 3, Section 22 on ISE, GEMX and MRX and proposed BX Options 3, Section 22(a)(1) both prevent a executions of agency orders to increase its economic gain from trading against the order without first giving other trading interests on the exchange an opportunity to either trade with the agency order or to trade at the execution price when a market participant was already bidding or offering on the book.

Options 3, Section 13

The Exchange proposes to amend Options 3, Section 13, which describes the Price Improvement Auction or ''PRISM.''

Similar to ISE, GEMX and MRX Options 3, Section 13, the Exchange proposes to amend its System functionality to better any limit order or quote on the limit order book on the same side of the market as the PRISM Order, within Options 3, Section 13(i)(A) and (B). Today, Options 3, Section 13 only considers orders. With the technology migration, the Exchange proposes, similar to ISE, GEMX and MRX's rules at Options 3, Section 13, to consider quotes as well. The Exchange is proposing to add ''or quote,'' within Options 3, Sections 13(i) and (A) and (B) and (ii)(A)(1). The addition of ''quotes,'' similar to ISE, GEMX and MRX at Options 3, Section 13, will enable the Exchange to consider additional interest on the Order Book at time a PRISM Auction is initiated. The Exchange believes expanding its consideration to both quotes and orders will consider a greater amount of interest present on BX's Order Book when initiating a PRISM.

In various places, within Options 3, Section 13, where the Exchange cites to the minimum increment rule at Options 3, Section 3, the Exchange proposes to instead simply state the minimum increment allowable directly within the rule. For example, BX proposes to amend Options 3, Section 13(i)(A) and (B) to remove the rule text which states, ''at one minimum price improvement increment,'' and ''at least one minimum trading increment specified in Options 3, Section 3 (''Minimum Increment'')'' and ''the Minimum Increment,'' respectively, and instead simply state ''$0.01'' within the rule text. This amendment does not amend the current System operation, rather it more simply states what that minimum increment is today. The Exchange proposes a similar change at Options 3, Section 13(ii)(A)(1) by proposing to remove ''one Minimum Increment'' and replace that text with ''$0.01.'' Finally, the Exchange proposes to amend Options 3, Section 13(ii)(A)(6) to replace a reference to ''the minimum price improvement increment established pursuant to subparagraph (i)(A) above'' with ''$0.01.''

The Exchange also proposes technical amendments to capitalized the ''if'' within Options 3, Section 13(i)(A) and add an ''If'' before Options 3, Section 13(i)(B) to conform the rule text.

The final amendment proposed to Options 3, Section 13(ii)(A)(1) is to amend the System functionality with respect to Surrender. Today, a Surrender feature is available on BX, which permits the Initiating Participant to forfeit completely its priority and trade allocation privileges. The text related to Surrender, within Options 3, Section 13(ii)(A)(1), currently provides,

> When starting an Auction, the Initiating Participant may submit the Initiating Order with a designation of ''surrender'' to the other PRISM Participants (''Surrender''), which will result in the Initiating Participant forfeiting the priority and trade allocation privileges which he is otherwise entitled to as per Section 9(ii)(E)(2)(a) and Section 9(ii)(F)(2)(a). If Surrender is specified the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price. The Surrender function will never result in more than the maximum allowable allocation percentage to the Initiating Participant than that which the Initiating Participant would have otherwise received in accordance with the allocation procedures set forth in this Rule. Surrender will not be applied if both the Initiating Order and PRISM Order are Public Customer orders. Surrender information will not be available to other market participants and may not be modified.

The Exchange proposes to amend the first sentence of the above-referenced paragraph to describe ''Surrender.'' The Exchange proposes to state, ''For purposes of this Rule, Surrender shall mean the target allocation percentage the contra-side requests to be allocated from 0% to 39%. If the Participant requests 40%, then the Participant would receive its full priority and trade allocation provisions that it would be entitled to pursuant to Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a).'' The Exchange believes that this will make clear the manner in which the System will handle the percentage designation. The Exchange then proposes to amend the next sentence to provide, ''When starting an

[31] Current Options 3, Section 13(vi)(A) provides, ''Options 3, Section 22 prevents a Participant from executing agency orders to increase its economic gain from trading against the order without first giving other trading interests on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Participant was already bidding or offering on the book. However, the Exchange recognizes that it may be possible for a Participant to establish a relationship with a Public Customer or other person to deny agency orders the opportunity to interact on the Exchange and to realize similar economic benefits as it would achieve by executing agency orders as principal. It would be a violation of Options 3, Section 22 for a Participant to circumvent Options 3, Section 22 by providing an opportunity for (i) a Public Customer affiliated with the Participant, or (ii) a Public Customer with whom the Participant has an arrangement that allows the Participant to realize similar economic benefits from the transaction as the Participant would achieve by executing agency orders as principal, to regularly execute against agency orders handled by the firm immediately upon their entry as PRISM Public Customer-to-Public Customer immediate crosses.''

Auction, the Initiating Participant may submit the Initiating Order with a percentage designation (a percentage from 0% up to 40% as noted above) of ''Surrender'', which will result in the Initiating Participant being allocated its designated percentage pursuant to Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a).'' This proposed text would permit an Initiating Participant to submit an Initiating Order with a percentage for ''Surrender'' up to 40%, although the percentage may be lower. Today, the System permits a Participant to have either a Surrender of 0% or 40%. Today, ISE, GEMX and MRX Options 3, Section 13(e)(5)(iii), related to PIM Complex Orders, has a configurable Surrender provision.[32] The proposed text indicates that the percentage could be 40% or a lower percentage for priority and allocation by stating, ''. . .which will result in the Initiating Participant being allocated its designated percentage pursuant to Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a).'' This text similarly proposes to amend Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a) which describe Surrender percentages.

By way of example, an Initiating Participant may submit an Initiating Order with a ''Surrender'' percentage designation of up to forty percent (40%). If a surrender percentage designation of 40% is submitted, this would indicate no surrender.[33] If a surrender percentage designation between 0–39% is elected, this would indicate the Initiating Participant has surrendered their full 40% allocation entitlement and would retain only a lesser percentage designation that the Participant elected (between 0% and 39%). In this instance, the Initiating Participant will not be eligible to receive the highest possible allocation of fifty percent (50%). The 50% allocation is possible if only one other quote, or PAN response matches the stop price and the Initiating Participant has not chosen to designate any percentage designation of ''Surrender.'' A designation of Surrender will result in the Initiating Participant forfeiting all or a portion of their 40% enhanced allocation carve out to the other PRISM Participants. The percentage that is being submitted represents the percentage of allocation being requested by the contra-side party.

The Exchange proposes to amend the current rule text, within Options 3, Section 13(ii)(A)(1), which provides, ''. . .forfeiting the priority and trade allocation privileges which he is otherwise entitled to as per. . .''. This rule text is being removed in favor of simply citing directly to the allocation provisions (Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a)). Also, the current rule text, ''with a designation of ''surrender'' to the other PRISM Participants (''Surrender'')'' is being removed because the proposed rule text defines ''Surrender'' as the percentage designation, which the Exchange believes more accurately defines ''Surrender'' within the rule text.

The Exchange is revising the second sentence of Options 3, Section 13(ii)(A)(1), which currently provides, ''If Surrender is specified the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price.'' The Exchange proposes to instead provide, ''If zero (0%) is specified, the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price.'' The Exchange believes that explaining if no percentage were elected for Surrender (0%) more clearly describes the remainder of the sentence which provides the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price, in light of the ability to configure the Surrender percentage with this proposal.

The Exchange proposes to amend Options 3, Section 13(ii)(A)(2) to add ''price'' as a detail which is specified today for a PRISM Auction Notification or ''PAN.'' Current Options 3, Section 13(ii)(A)(2) states, ''When the Exchange receives a PRISM Order for Auction processing, a PAN detailing the side, size, and options series of the PRISM Order will be sent over the BX Depth feed and the Exchange's Specialized Quote Feed.'' The Exchange is amending the current functionality of PRISM to disseminate ''price'' in addition to side, size, and options series similar to ISE, GEMX and MRX.[34] Adding ''price'' to the list of details will provide Participants with greater transparency and could encourage more competition in PRISM and greater opportunity for potential price improvement in PRISM.

The Exchange proposes to amend Options 3, Section 13(ii)(A)(7), which currently provides, ''A PAN response size at any given price point may not exceed the size of the PRISM Order. A PAN response with a size greater than the size of the PRISM Order will be immediately cancelled.'' The Exchange is amending this rule in conjunction with the technology migration to conform the behavior of PAN responses to ISE, GEMX and MRX System behavior.[35] As noted above, the Exchange is amending the System to accept oversized responses. These responses will no longer cancel back, rather, PRISM will cap the response at the size of the PRISM Order for purposes of allocation. Any remaining interest from responses not filled during the PRISM Order allocation, including any response quantity in excess of the PRISM Order quantity, will be cancelled back to the Participant at the conclusion of the auction timer.

The Exchange proposes to amend Options 3, Section 13(ii)(A)(8) and (9) to replace the words ''immediately cancelled'' with ''rejected.'' These technical amendments are intended to

[32] *See* ISE, GEMX and MRX Options 3, Section 13(e)(5)(iii) which provides, ''In the case where the Counter-Side Complex Order is at the same net price as Professional interest on the Complex Order Book in (ii) above, the Counter-Side Complex Order will be allocated the greater of one (1) contract or forty percent (40%) (or such lower percentage requested by the Member) of the initial size of the Agency Complex Order before other Professional interest on the Complex Order Book are executed. Upon entry of Counter-Side Complex Orders, Members can elect to automatically match the price and size of Complex Orders, Improvement Complex Orders received on the Complex Order Book during the exposure period up to a specified limit net price or without specifying a limit net price. This election will also automatically match the net price available from the ISE best bids and offers on the individual legs for the full size of the order; provided that with notice to Members the Exchange may determine whether to offer this option only for Complex Options Orders, Stock-Option Orders, and/or Stock Complex Orders. If a Member elects to auto-match, the Counter-Side Complex Order will be allocated its full size at each price point, or at each price point within its limit net price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side Complex Order shall be allocated the greater of one contract or forty percent (40%) (or such lower percentage requested by the Member) of the original size of the Agency Complex Order, but only after Priority Customer Complex Orders and Improvement Complex Orders at such price point are executed in full. Thereafter, all Professional Complex Orders and Improvement Complex Orders at the price point will participate in the execution of the Agency Complex Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Complex Order or Improvement Complex Order on the Complex Order Book.''

[33] Initiating Participants may submit a percentage for Surrender into the System, prior to submitting paired orders into PRISM. If the Initiating Participant submitted a percentage of 40% into the System, the Participant would receive its full priority and trade allocation provisions that it would be entitled to pursuant to Section 13(ii)(E)(2)(a) and Section 13(ii)(F)(2)(a). Of note, if the Initiating Participant does not select a percentage, the System will populate the field with 40%, the default Surrender percentage.

[34] *See* ISE, GEMX and MRX Options 3, Section 13(c).

[35] *See* ISE, GEMX and MRX Options 3, Section 13(c)(2).

conform the text of the rule where a response would be sent back as unacceptable by the System by uniformly noting the order would be ''rejected.''

The Exchange proposes to amend Options 3, Section 13(ii)(C)[36] to replace ''the Minimum Increment,'' with ''$0.01'', which is the actual increment.

The Exchange proposes to amend Options 3, Section 13(ii)(E)(2)(a) to amend the System allocation to the Initiating Participant after Public Customer orders have been allocated. Today, the Exchange rule provides,

> If the Initiating Participant selected the single stop price option of the PRISM Auction, PRISM executions will occur at prices that improve the stop price, and then at the stop price with up to 40% of the remaining contracts after Public Customer interest is satisfied being allocated to the Initiating Participant at the stop price. However, if only one other quote, order or PAN response matches the stop price, then the Initiating Participant may be allocated up to 50% of the contracts executed at such price. Remaining contracts shall be allocated, pursuant to Options 3, Section 13(ii)(E)(3) through (5) below, among remaining quotes, orders and PAN responses at the stop price. Thereafter, remaining contracts, if any, shall be allocated to the Initiating Participant. The allocation will account for Surrender, if applicable.

The Exchange proposes, similar to ISE, GEMX and MRX Options 3, Section 13(d)(3),[37] to base the priority allocation of the Initiating Participant on the initial size of the Initiating Order after Public Customer interest is satisfied. The proposed rule text, within Options 3, Section 13(ii)(E)(2)(a), would provide, ''If the Initiating Participant selected the single stop price option of the PRISM Auction, PRISM executions will occur at prices that improve the stop price, and then at the stop price with up to 40% (or such lower percentage requested by the Initiating Participant) of the initial size of the PRISM Order after Public Customer interest is satisfied being allocated to the Initiating Participant at the stop price.'' The Exchange states, ''. . . or such lower percentage requested by the Initiating Participant'' because as stated previously, the Surrender percentage can be a percentage up to 40%. The caveat in the second sentence also accounts for Surrender. The proposed second sentence provides, ''However, if only one other quote, order or PAN response matches the stop price, then the Initiating Participant may be allocated up to 50% of the contracts executed at such price, provided the Initiating Participant had not designated a percentage designation of ''Surrender'' when initiating the Auction.'' The Exchange proposes similar changes to Options 3, Section 13(ii)(E)(2)(b), Section 13(ii)(E)(2)(c)(ii), in two places, Section 13(ii)(F)(2)(a) and (b), and Section 13(ii)(F)(2)(c)(ii), in two places. The proposed changes do not impact the manner in which the Exchange allocates pursuant to price/time, size pro-rata and auto-match. In each of these places the Exchange is amending the rule text to remove the phrase ''contracts remaining'' and instead providing ''initial size of the PRISM Order.'' By way of example,

The NBBO and BX BBO are both 1 x 1.50
PRISM to buy 1000 is submitted with an Initiating Order to stop the PRISM Order at 1.20
PRISM begins. During the PRISM Auction:
Public Customer PAN arrives to sell 600 @ 1.20
Firm 1 PAN to sell 1000 @1.20 arrives
Firm 2 PAN to sell 1000 @1.20 arrives
Current Rule: Public Customer allocated 600 @1.20, contra-side allocated 160 @1.20, Firm 1 and 2 each allocated 170 @1.20 (*in this case contra-side allocated 40% of 400 contracts which remained after Public Customer allocation of 600 contracts, for a remainder of 160 contracts)*
Proposed Rule: Public Customer allocated 600 @1.20 and contra-side allocated 400 @ 1.20 (*in this case contra-side allocated 40% of 1000 contracts (initial size of the Initiating Order) which is 400 contracts)*

Additional example to illustrate ''initial size'' allocation with step up utilizing size pro-rata allocation pursuant to Options 3, Section 13(ii)(E):

The NBBO and BX BBO are both 1 x 1.50
PRISM to buy 1000 is submitted with an Initiating Order to stop the PRISM Order at 1.20, and the Initiating Order step up price of 1.19
PRISM begins. During the PRISM Auction:
Public Customer PAN arrives to sell 200 @ 1.19 and 40% allocation elected
Firm 1 PAN to sell 1000 @1.20 arrives
Firm 2 PAN to sell 1000 @1.20 arrives
Current Rule: Public Customer allocated 200 @1.19, contra-side allocated 200 @1.19, contra-side allocated 240 @1.20 (40% of remaining 600), Firm 1 allocated 180 @ 1.20, Firm 2 allocated 180 @1.20
Proposed Rule: Public Customer allocated 200 @1.19, contra-side allocated 200 @1.19, contra-side allocated 400 @1.20 (40% of initial 1000), Firm 1 allocated 100 @1.20, Firm 2 allocated 100 @1.20.

The Exchange proposes to amend rounding, within Options 3, Section 13(ii)(G). Today, BX PRISM rounds up or down to the nearest integer when it allocates. The Exchange is amending the rounding methodology to round up to the nearest integer. Options 3, Section 13(ii)(G) is being amended to reflect the new methodology. As a result of changing the rounding methodology, residual odd lots will no longer exist. If the result of an allocation is not a whole number, it will now be rounded up to the nearest whole number instead of down. Finally, with respect to rounding, because it is rounding up, the provisions which describe allocations for remainders of less than one contract cannot occur and, therefore, this rule text is being removed because such remainders would not be possible.

The Exchange proposes to amend Options 3, Section 13(ii)(H) to remove the phrase ''then-existing.'' Current Options 3, Section 13(ii)(H) provides, ''If there are PAN responses that cross the then-existing NBBO (provided such NBBO is not crossed), such PAN responses will be executed, if possible, at their limit price(s).'' The Exchange is not amending the current operation of the System, rather the Exchange is amending its rules to more accurately state, ''If there are PAN responses that cross the NBBO at the time of execution (provided such NBBO is not crossed), such PAN responses will be executed, if possible, at their limit price(s).'' The

[36] BX Options 3, Section 13(ii)(C) provides, ''If the situations described in sub-paragraphs (B)(2) or (3) above occur, the entire PRISM Order will be executed at: (1) In the case of the BX BBO crossing the PRISM Order stop price, the best response price(s) or, if the stop price is the best price in the Auction, at the stop price, unless the best response price is equal to or better than the price of a limit order resting on the Order Book on the same side of the market as the PRISM Order, in which case the PRISM Order will be executed against that response, but at a price that is at least the Minimum Increment better than the price of such limit order at the time of the conclusion of the Auction; or (2) in the case of a trading halt on the Exchange in the affected series, the stop price, in which case the PRISM Order will be executed solely against the Initiating Order. Any unexecuted PAN responses will be cancelled.''

[37] ISE, GEMX and MRX Options 3, Section 13(d)(3), provides, ''In the case where the Counter-Side Order is at the same price as Professional Interest in (d)(2), the Counter-Side order will be allocated the greater of one (1) contract or forty percent (40%) of the initial size of the Agency Order before Professional Interest is executed. Upon entry of Counter-Side orders, Members can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the Counter-Side order will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side order shall be allocated the greater of one contract or forty percent (40%) of the original size of the Agency Order, but only after Priority Customer Interest at such price point are executed in full. Thereafter, all Professional Interest at the price point will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Interest. An election to automatically match better prices cannot be cancelled or altered during the exposure period.'' *See also* NYSE American Rule 971 1NY(c)(5)(B)(i)(b) (order allocation for single stop price).

current text appeared to state that the System was utilizing the NBBO upon entry to check if the PAN responses crossed the NBBO, however, the System utilizes the NBBO at the time of execution to check if the PAN responses cross the NBBO. The Exchange believes this revised text better expresses the manner in which the current System operates. This change does not amend the current System operation.

The Exchange proposes to amend Options 3, Section 13(ii)(I), which currently provides:

> If the price of the PRISM Auction is the same as that of an order on the limit order book on the same side of the market as the PRISM Order, the PRISM Order may only be executed at a price that is at least one minimum trading increment better than the resting order's limit price or, if such resting order's limit price is equal to or crosses the stop price, then the entire PRISM Order will trade at the stop price with all better priced interest being considered for execution at the stop price.

The Exchange proposes to add some context to the rule to better reflect the current System operation. First, the Exchange purposes to add the word ''execution'' in the first sentence of Options 3, Section 13(ii)(I). The execution price of the PRISM Auction is utilized to compare to the price of an order on the limit Order Book. The Exchange utilizes the execution price today on BX. Adding the word ''execution'' makes clear to Participants that the initial PRISM Order stop price is not utilized to compare the same side of the market transactions. If the potential execution price of the PRISM Order would be the same or better than the price of an order on the limit Order Book on the same side of the market as the PRISM Order then, today, would be executed at a price $0.01 better than such limit order, regardless of whether such limit was a Public or Non-Public Customer Order. While ''or better'' is not clearly specified, it is the case today and its inclusion is meant to capture cases where PAN responses provide price improvement for the PRISM Order at prices that are crossed with the same side interest mentioned above. The remainder of the changes are grammatical and technical in nature, to the extent the Exchange is creating two separate sentences.

The Exchange proposes to amend Options 3, Section 13(ii)(K) to add the following introductory text which describes a PRISM ISO.

> A PRISM ISO Order is the transmission of two orders for crossing pursuant to this Rule without regard for better priced Protected Bids or Protected Offers (as defined in Options 5, Section 1) because the Participant transmitting the PRISM ISO to the Exchange has, simultaneously with the routing of the PRISM ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid or Protected Offer that is superior to the starting PRISM Auction price and has swept all interest in the Exchange's Order Book priced better than the proposed auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PRISM Order.

Phlx similarly describes a Price Improvement XL Mechanism (''PIXL'') ISO in its rule text at Options 3, Section 13(b)(11).[38] This text does not amend the current System functionality, rather it adds context to the current PRISM rule in describing a PRISM ISO. BX also proposes to amend the title of Options 3, Section 13(ii)(K) from ''ISO Orders'' to ''PRISM ISO Orders.'' The Exchange also proposes to utilize this proposed term within Options 3, Section 13(ii)(K).

The Exchange proposes to correct Options 3, Section 13(ii)(K) to clearly describe the current System operation. The Exchange proposes to amend the first sentence of current Options 3, Section 13(ii)(K) to provide:

> If a PRISM Auction is initiated for an order designated as a PRISM ISO Order, all executions which are at a price inferior to the Initial NBBO (on the contra-side of the PRISM Order) shall be allocated pursuant to the Size Pro-Rata execution algorithm, as described in Options 3, Section 10(a)(1)(C)(2), or Price/Time execution algorithm, as described in Options 3, Section 10 (a)(1)(C)(1), and the aforementioned priority in Options 3, Section 13(ii)(E) and (F) shall not apply, with the exception of allocating to the Initiating Participant which will be allocated in accordance with the priority as specified in Options 3, Section 13(ii)(E) and (F).

The Exchange states ''on the contra-side of the PRISM Order'' to distinguish the contra-side from the same side of the PRISM Order, which receives different treatment in allocation. This proposed amendment is intended to clarify the current System operation, not amend the System.

Finally, the Exchange proposes to renumber Options 3, Section 13(vi) to ''(v).'' This reflects the deletion of section ''vi'' which was described above in this proposal with respect to Public Customer-to-Public Customer orders. Public Customer-to-Public Customer orders submitted into PRISM would be subject to the procedures, within Options 3, Section 12(a).

Options 3, Section 23

The Exchange proposes to amend Options 3, Section 23, Data Feeds and Trade Information, to update its descriptions of the BX Depth of Market (BX Depth) and BX Top of Market (BX Top) data feeds. The Exchange proposes to amend the BX Depth data feed at Options 3, Section 23(a)(1) to more closely align with current System operation. The Exchange proposes a technical amendment to the first sentence to replace a comma with the word ''and.'' The Exchange also proposes to relocate rule text concerning order imbalances to the end of the description. The Exchange proposes to amend the first sentence to state ''BX Depth of Market (BX Depth) is a data feed that provides full order and quote depth information for individual orders and quotes on the BX Options book, and last sale information for trades executed on BX Options.'' The Exchange would amend and relocate the rule text that provides, ''and Order Imbalance Information as set forth in BX Options Rules Options 3, Section 8'' to the end of the first sentence. The Exchange proposes to add a sentence at the end of the description which states, ''The feed also provides order imbalances on opening/re-opening (size of matched contracts and size of the imbalance), auction and exposure notifications.'' This sentence makes clear that order imbalance information is provided for both an opening and re-opening process. Today, a re-opening process initiates after a trading halt has occurred intra-day. Also, the proposed rule provides the specific information that would be provided in the data feed, namely the size of matched contracts and size of the imbalance. Finally, auction[39] and exposure notifications[40] are also provided in the data feed. The Exchange believes that this additional context to imbalance messages as well as also noting that auction and exposure notifications are provided will provide market participants with more complete information about what is contained in the data feed. This information is available today and the rule text is being

[38] Phlx Options 3, Section 13(b)(11) states, ''*PIXL ISO Order.* A PIXL ISO order (PIXL ISO) is the transmission of two orders for crossing pursuant to this Rule without regard for better priced Protected Bids/Offers (as defined in Options 5, Section 1) because the member transmitting the PIXL ISO to the Exchange has, simultaneously with the routing of the PIXL ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid/Offer that is superior to the starting PIXL Auction price and has swept all interest in the Exchange's book priced better than the proposed Auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PIXL Order.''

[39] Auctions notifications refer to PANs within Options 3, Section 13.

[40] Exposure notifications refer to those messages that are disseminated as part of routing within Options 5, Section 4.

amended to make clear what information is currently provided.[41]

The Exchange also proposes to amend the description of the BX Top data feed, within Options 3, Section 23(a)(2). The Exchange proposes to amend the first sentence to provide that the BX Top ''calculates and disseminates BX's best bid and offer and last sale information for trades executed on BX Options.'' The current sentence provides that the BX Top, ''is a data feed that provides the BX Options Best Bid and Offer and last sale information for trades executed on BX Options.'' The Exchange believes that the amended description more clearly describes the BX Top data feed. Further, the Exchange proposes to amend the second sentence to provide, ''The feed also provides last trade information and for each options series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on BX and identifies if the series is available for closing transactions only.'' The current second sentence provides, ''The data provided for each options series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on BX and identifies if the series is available for closing transactions only.'' The Exchange believes noting that the last trade information is provided will make clear to market participants the data that is currently available on BX Top. This information is available today and the rule text is being amended to make clear what information is currently provided.[42]

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[43] in general, and furthers the objectives of Section 6(b)(5) of the Act,[44] in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest.

Options 1, Section 1

The Exchange's proposal to amend the definition of ''Public Customer'' to conform to Phlx's definition is intended to provide greater specificity regarding what is meant by the term ''Public Customer.'' Specifically, the Exchange proposes to provide that a ''Public Customer'' could be a person or entity and is not a Professional as defined within Options 1, Section 1(a)(48).[45] Today, a Public Customer is not a Professional. The term 'Professional'' is separately defined, within BX Options 1, Section 1(a)(48). In order to properly represent orders entered on the Exchange, Participants are required to indicate whether orders are ''Professional Orders.'' To comply with this requirement, Participants are required to review their Public Customers' activity on at least a quarterly basis to determine whether orders that are not for the account of a broker-dealer should be represented as Public Customer Orders or Professional Orders.[46] A Public Customer may be a Professional if they meet the requirements specified within BX Options 1, Section 1(a)(48). If the Professional definition is not met, the order is treated as a Public Customer order. The Exchange believes that it is consistent with the Act to state within the definition of ''Public Customers'' that a Professional is not a Public Customer. As noted above, there is a process for determining if a market participant qualifies as a ''Professional.'' This specificity will serve to protect investors and the public interest in that the terms ''Public Customer'' and ''Professional'' are separate categories of market participants, as defined. Also, this definition conforms to Phlx's definition at Options 1, Section 1(b)(46).

The Exchange's proposal to remove a sentence within Options 1, Section 1(a)(48) which provides, ''A Participant or a Public Customers may, without limitation, be a Professional,'' is consistent with the Act. This sentence is confusing and not necessary. Phlx Options 1, Section 1(b)(46) does not contain a similar sentence. BX proposes removing this sentence because it does not add useful information to understanding who may qualify as a Professional.

The Exchange's proposal to remove sentences, within Options 3, Section 10(a)(1)(C)(1)(a), Options 3, Section 10(a)(2)(i), Options 3, Section 13, in the introductory paragraph, and Options 3, Section 13(ii)(E)(1) and (F)(1), which allocation and PRISM rules, respectively, provide that a Public Customer does not include a Professional, are consistent with the Act. Today, the definition of a Public Customer does not explicitly exclude a Professional. The language that the Exchange proposes to delete, today, indicates that Professionals would not be treated the same as a Public Customer in terms of priority and, therefore, would not receive the same allocation that is reserved for Public Customer orders. Because BX is amending the definition of a Public Customer to explicitly exclude Professionals, the language in the PRISM and allocation rules are no longer necessary to distinguish these two types of market participants.

Bid/Ask Differentials

The Exchange's proposal to amend BX Options 2, Section 5(d)(2) to add the words ''Intra-Day'' before the title ''Bid/ask Differentials (Quote Spread Parameters)'' and remove references to the opening, will make clear for Market Makers their intra-day requirements. The bid/ask differentials, within BX Options 2, Section 5(d)(2), will apply intra-day only. The bid/ask differentials applicable to the opening are noted within current BX Options 3, Section 8(a)(6).[47] It is not necessary to discuss the opening bid/ask differentials within Options 2, Section 5. The bid/ask differentials, within BX Options 2, Section 5(d)(2), are not otherwise being amended. This clarification is consistent with the Act because it is designed to avoid any confusion for Market Makers as to their intra-day requirements versus their opening requirements.

The Exchange's proposal to amend BX Rules at Options 2, Section 4(f)(4)–(6) (Obligations of Market Makers and Lead Market Makers), which specifies quoting requirements for Lead Market Makers, to conform the rule to proposed BX Options 2, Section 5(d)(2), which applies to BX Market Makers, is consistent with the Act. The Exchange believes it is consistent with the Act to permit Lead Market Makers to quote as wide as Market Makers on BX.

[41] Fees related to BX TOP are noted within BX Options 7, Section 3.

[42] Fees related to BX Depth are noted within BX Options 7, Section 3.

[43] 15 U.S.C. 78f(b)

[44] 15 U.S.C. 78f(b)(5).

[45] BX Options 1, Section 1(a)(48) provides that, ''The term ''Professional'' means any person or entity that (i) is not a broker or dealer in securities, and (ii) places more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s). A Participant or a Public Customer may, without limitation, be a Professional. All Professional orders shall be appropriately marked by Participants.''

[46] Participants conduct a quarterly review and make any appropriate changes to the way in which they are representing orders within five days after the end of each calendar quarter. While Participants only will be required to review their accounts on a quarterly basis, if during a quarter the Exchange identifies a customer for which orders are being represented as Public Customer Orders but that has averaged more than 390 orders per day during a month, the Exchange will notify the Participant and the Participant will be required to change the manner in which it is representing the customer's orders within five days.

[47] *See* note 5 above.

Today, Lead Market Makers have higher quoting requirements and other obligations noted within Options 2, Section 3, than Market Makers, which accounts for their priority allocations, within Options 3, Section 10.[48] The Exchange is proposing to allow Lead Market Makers to obtain similar quoting relief as, today, may be provided to Market Makers. There is no limitation on the quoting relief that may be afforded to Market Makers today, the Exchange is proposing to conform the ability for the Exchange to grant quoting relief equally to Market Makers and Lead Market Makers in the same option series. Today, while a Lead Market Maker has higher quoting obligations they have less opportunity for quoting relief in a certain options series as compared to a Market Maker who is quoting in the same options series. In periods of market volatility, similar to those experienced in the first half of 2020, BX's ability to grant quote relief was limited as compared to other options markets.

Replacing Options 2, Section 4(f)(4)—(6) with the rule text, within BX Options 2, Section 5(d)(2), would continue to require Lead Market Makers to quote with a difference not to exceed $5 between the bid and offer regardless of the price of the bid. However, instead of requiring Lead Market Makers to quote a price differential for any in-the-money option series identical to those in the underlying security market, in the event the bid/ask differential in the underlying security is greater than the bid/ask differential set forth in subsections (f)(4) and (5), the Exchange would now permit the bid/ask differential to be as wide as the spread between the national best bid and offer in the underlying security when the market for the underlying security is wider than $5. Further, replacing the exemptions from subsections (f)(4) and (5) and permitting BX to establish quote width differentials similar to BX Market Makers with this provision is consistent with the Act, because it would align the bid/ask differentials for BX Market Makers and BX Lead Market Makers with quoting requirements of other Nasdaq Affiliated Markets that have both Market Makers and Lead Market Makers.[49] Further, the additional allowance and exemptions are no longer necessary because the Exchange proposes to add rule text, similar to BX Options 2, Section 4(f)(5) and BX Options 5, Section 5(d)(2), which permits BX to establish differences other than the stated bid/ask differentials, for one or more series or classes of options. The ability to establish differences, other than the stated bid/ask differentials, for one or more series or classes of options already exists today for BX Lead Market Maker quoting requirements, however this discretion is limited by BX Options 2, Section 4(f)(6).[50] The Exchange's proposal would align the procedural BX would follow with other options exchanges, which notify members in writing of any discretion that is being granted by the Exchange. BX would no longer file a report with BX operations. Today, no other Nasdaq exchange files a report when it grants exemptions, including exemptions for BX Market Makers. Decisions to grant exemptions are made based on current market conditions. Exchanges need to be able to react when market conditions change dramatically and require the Exchange to grant relief. The additional steps that are currently required on BX, are not conducive to granting relief in fast changing markets. In addition, the quoting requirements for BX Lead Market Makers and Makers is consistent with requirements on other Nasdaq Affiliated Markets that have both Market Makers and Lead Market Makers.[51] Other options markets do not limit their lead market makers to quote relief as BX limits quote relief today for its Lead Market Makers. Today, BX limits its Lead Market Makers to quote relief which may not be greater than half as wide as the bid/ask differential.[52]

Options 3, Section 5

The Exchange's proposal to amend Options 3, Section 5(c) to add additional rule text similar to Phlx Options 3, Section 5(c) is consistent with the Act. Today, BX re-prices certain orders to avoid locking and crossing away markets, consistent with its Trade-Through Compliance and Locked or Crossed Markets obligations.[53] Orders which lock or cross an away market will automatically re-price one minimum price improvement inferior to the original away best bid/offer price to one minimum trading increment away from the new away best bid/offer price or its original limit price.[54] The re-priced order is displayed on OPRA. The order remains on BX's Order Book and is accessible at the non-displayed price. For example, a limit order may be accessed on BX by a Participant if the limit order is priced better than the NBBO. The Exchange believes that the addition of this rule text will allow BX to define an ''internal BBO'' within its rules when describing re-priced orders that remain on the Order Book and are available at non-displayed prices, which are resting on the Order Book.

Options 3, Section 7

The Exchange's proposal to amend the Cancel-Replacement Order, within Options 3, Section 7(a)(1), is consistent with the Act. The Exchange's proposal to amend its System functionality for Cancel-Replacement Orders that do not meet price or other reasonability checks, which consider the current market at the time of the Cancel-Replacement Order, is consistent with the Act, because, with this proposal, all Cancel-Replacement Orders would receive price or other reasonability checks as a result of being viewed as new orders. Price and size are the terms that will determine if the Cancel-Replacement Order retains its priority, as is the case today, other terms and conditions do not amend the priority of the Cancel-Replacement Order. The Exchange is not amending the current System functionality of a Cancel-Replacement Order with respect to the terms that will cause the order to lose priority. Today, the price of the order may not be changed when submitting a Cancel-Replacement Order, that would be a new order.

If a Cancel-Replacement Order does not pass a price or other reasonability check, the order will cancel, but it will not be replaced with a new order. The Limit Order Price Protection and Market Order Spread Protection are the only

[48] *See* BX Options 3, Section 10(a)(1)(C)(1)(b) and Section 10(a)(2)(ii) which describe Lead Market Maker Priority.

[49] *See* Nasdaq Phlx LLC Rules at Options 2, Section 4(c) and ISE, GEMX and MRX Rules at Options 2, Section 4(b)(4). ISE, GEMX and MRX utilize the term Primary Market Maker instead of Lead Market Maker.

[50] *See* BX Options 2, Section 4(f)(5).

[51] *See* Phlx at Options 2, Section 4(c) and ISE, GEMX and MRX Rules at Options 2, Section 4(b)(4). ISE, GEMX and MRX utilize the term Primary Market Maker instead of Lead Market Maker.

[52] *See* ISE and GEMX at Options 2, Section 5, Miami International Securities Exchange LLC Rule 503(e)(2), BOX Exchange LLC Rule 8040 and NYSE American LLC Rule 925NY(b)(5) and (c).

[53] BX Options 3, Section 5(d) provides, ''An order will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. An order that is designated by the member as routable will be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions. An order that is designated by a member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions. If, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.''

[54] *See* Options 5, Section 4 (Order Routing), which describes the repricing of orders for both routable and non-routable orders within Options 5, Section 4(a)(iii)(A), (B) and (C).

risk protections within Options 3, Section 15 (Risk Protections) that are applicable. Price or other reasonability checks consider the current market at the time the Cancel-Replacement Order is entered. The Exchange proposes to begin applying price or other reasonability checks to all Cancel-Replacement Orders, similar to ISE, GEMX and MRX, to provide market participants with additional risk protection checks with the re-entry of the Cancel-Replacement Order. This proposed rule is similar to ISE, GEMX and MRX Rules at Options 3, Section 7 at Supplementary Material .02, except that ISE, GEMX and MRX discuss Reserve Orders, which are not available on BX.[55] All risk protections are noted within Options 3, Section 15. Those risk protections apply throughout the Rulebook, except where otherwise noted. The Exchange believes that it is consistent with the Act to treat such orders as new orders which will be subject to price or other reasonability checks. The Exchange believes that conducting price or other reasonability checks for all Cancel and Replace Orders will protect investors and the public interest by validating the order against the current market conditions prior to proceeding with the request to modify the order.

The Exchange's proposal to amend ''Directed Order,'' within Options 3, Section 7(a)(2), is non-substantive and makes technical edits that do not change the meaning of the term.

The Exchange's proposal to amend ''Limit Order,'' within Options 3, Section 7(a)(3), to add the sentence for marketable limit orders currently within ISE, GEMX and MRX Options 3, Section 7(b)(1) is consistent with the Act. The Exchange believes that this description more aptly informs participants about a marketable limit order as compared to the current rule text, which may be confusing. The new sentence does not substantively amend the manner in which a Limit Order operates.

The Exchange's proposal to amend ''Minimum Quantity Orders,'' within Options 3, Section 7(a)(4), is non-substantive and makes technical edits that do not change the meaning of the term.

The Exchange's proposal to amend ''Market Orders,'' within Options 3, Section 7(a)(5), is consistent with the Act. The Exchange's proposes to style ''Market Orders'' in the singular and change ''are'' to ''is an'' and ''orders'' to ''order'' are technical and non-substantive amendments. The Exchange's proposal to add a notation at the end of the rule to provide that ''Participants can designate that their Market Orders not executed after a pre-established period of time, as established by the Exchange, will be cancelled back to the Participant, once an option series has opened for trading'' adds specificity regarding the opening. Market Orders submitted during the opening may be executed, routed (depending on instructions from the market participant) or cancelled if the Market Order is priced through the opening price. The Exchange would only cancel those Market Orders that remained on the Order Book once an option series opened. The pre-established period of time would commence once the intra-day trading session begins for that options series and the order would be cancelled back to the Participant, provided the Participant elected to cancel back its Market Orders. The Exchange's proposal differentiates when the opening is on-going, and the intra-day trading session has not commenced, the manner in which the pre-established period of time would commence.

The proposal to note that ''Market Orders on the Order Book would be immediately cancelled if an options series halted, provided the Participant designated the cancellation of Market Orders'' specifically addresses trading halts within the rule. Once an options series halts for trading, the Exchange conducts another Opening Process. In the case where a Market Order was resting on the Order Book, and the Participant had designated the cancellation of Market Orders, in the event of a halt, the Market Orders resting on the Order Book would immediately cancel. The Exchange believes that this text provides more detail for market participants to understand the manner in which the System handles Market Orders.

The Exchange's proposal to amend ''Intermarket Sweep Order'' or ''ISO'' Orders, within Options 3, Section 7(a)(6), is consistent with the Act. The Exchange is amending the current functionality of an ISO Order to require that ISOs have a time-in-force designation of Immediate-or-Cancel. Today, ISOs may have any time-in-force designation except WAIT, except that ISOs with a time-in-force designation of GTC are treated as having a time-in-force designation of ''Day.'' With this proposal, the Exchange would only continue to allow a time-in-force of IOC. A TIF designation of IOC that would cause an ISO Order to cancel in whole or in part upon receipt, in the event that the ISO Order does not execute or does not entirely execute, is consistent with the Act because an ISO is generally used when trying to sweep a price level across multiple exchanges in an effort to post the balance of an order without locking an away market.

The Exchange's proposal to remove the ''One-Cancels-the-Other Order'' is consistent with the Act because it will remove an order type that is not in demand on BX and simply the offerings provided by BX. The Exchange would file a proposed rule change with the Commission pursuant to Section 19b1 of the Act,[56] if it decides to offer this order type in the future. It will provide notice to Participants that this order type will no longer be available.

The Exchange's amendment to ''All-or-None Order,'' within Options 3, Section 7(a)(7), is non-substantive and does not change the meaning of the term. The amendment makes technical changes and replaces the words ''opening cross'' with ''opening''.

The Exchange's proposal to include a ''PRISM Order'' and ''Customer Cross Order'' in the list of order types is consistent with the Act because the addition of these terms within the list of order types simply cross-references the existing order types and does not change the functionality of the order types. The Exchange's proposal defines this existing order type by cross-referencing Options 3, Section 13 and Options 3, Section 12(a), respectively, which explains these existing order types. The Exchange believes that adding these order types, within Options 7, Section 3, will bring greater clarity to the list of order types available on BX for the protection of investors and the general public.

The Exchange's proposal to amend an ''Immediate-Or-Cancel'' Order or ''IOC,'' within Options 3, Section 7(b)(2), is consistent with the Act. The Exchange's proposal replaces the current description with Phlx's description at Options 3, Section 7(c)(2) as these order types are identical. The Exchange's proposal to state that an Immediate-or-

[55] ISE, GEMX and MRX Options 3, Section 7 at Supplementary Material .02, provides, ''Cancel and Replace Orders shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, size is not increased, or in the case of Reserve Orders, size is not changed. If the replacement portion of a Cancel and Replace Order does not satisfy the System's price or other reasonability checks (*e.g.* Options 3, Section 15(b)(1)(A) and (b)(1)(B); and Supplementary Material .07 (a)(1)(A), (b) and (c)(1) to Options 8, Section 14) the existing order shall be cancelled and not replaced.''

[56] 15 U.S.C. 78s(b)(1).

Cancel Order or ''IOC'' Order is a Market Order or Limit Order to be executed in whole or in part upon receipt will bring greater clarity to the rule. Further the Exchange's proposal to add that any portion not so executed is cancelled is consistent with the current description. The Exchange is adding additional context, similar to Phlx, with respect to routing, submission through FIX or SQF and the price protections that apply when utilizing SQF. The Exchange believes that this additional clarity will provide market participants with greater information for the protection of investors and the general public. SQF is not subject to the Limit Order Price Protection or the Market Order Spread Protection in Options 3, Section 15(a)(1) and (a)(2), respectively, because SQF is a quoting protocol. The Order Price Protection and Market Order Spread Protection, while available for orders, are not available on SQF. These exceptions within this rule to make clear that this information is available to market participants within the description of IOC. Market Makers utilize IOC Orders to trade out of accumulated positions and manage their risk when providing liquidity on the Exchange. Proper risk management, including using these IOC Orders to offload risk, is vital for Market Makers, and allows them to maintain tight markets and meet their quoting and other obligations to the market. The Exchange believes that allowing Market Makers to submit IOC Orders though their preferred protocol increases their efficiency in submitting such orders and thereby allow them to maintain quality markets to the benefit of all market participants that trade on the Exchange. Further, unlike other market participants, Market Makers provide liquidity to the market and have obligations.[57] The Exchange believes not offering Order Price Protection and Market Order Spread Protection for IOC Orders entered through SQF is consistent with the Act, because Market Makers have more sophisticated infrastructures than other market participants and are able to manage their risk, particularly with respect to quoting, using tools that are not available to other market participants.[58]

Finally, orders entered into the PRISM Mechanism are considered to have a TIF of IOC; this is also true of the PIXL Mechanism on Phlx.[59] The Exchange believes that adding these new details to the manner in which IOC Orders are handled within the System will bring greater transparency to these order types and provide Participants with greater detail as to the manner in which the System will handle a TIF of IOC.

The Exchange's proposal to amend the TIF of ''DAY'' at Options 5, Section 7(b)(3) to conform the description of a TIF of ''DAY'' to Phlx Options 3, Section 7(c)(1)[60] is consistent with the Act. The Exchange believes the current text describing BX's Day TIF is unnecessarily verbose and proposes to remove this language. A DAY Order on Phlx functions in the same way as a DAY Order on BX. The proposal is not amending the System functionality of a DAY Order.

The Exchange's proposal to amend the TIF of ''Good Til Cancelled'' or ''GTC'' at Options 5, Section 7(b)(4) is consistent with the Act. The Exchange proposes to conform the rule text to Phlx Options 3, Section 7(c)(4).[61] The Exchange is not amending the manner in which the System function with respect to GTC Orders. GTC Orders, if not fully executed, will remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open, as specified by the Exchange, until market close, as is the case today. Also, today, a GTC Order may only be entered through FIX. A GTC Order on Phlx functions in the same way as a GTC Order on BX. The Exchange believes that the amended rule text will bring greater transparency to its rules for the protection of investors and the general public.

The Exchange's proposal to no longer offer a TIF of ''WAIT'' is consistent with the Act because it will remove an order type that is not in demand on BX and simply the offerings provided by BX. The Exchange would file a proposed rule change with the Commission pursuant to Section 19b1 of the Act,[62] if it decides to offer this order type in the future. It will provide notice to Participants that this order type will no longer be available.

The Exchange's proposal to note, within BX Options 3, Section 7(c), the various routing options which are available is consistent with the Act. These routing strategies are consistent with a recent rule change filed by BX to amend routing strategies.[63]

Options 3, Section 10

The Exchange's proposal to amend its Order Book allocation rule, within Options 3, Section 10, to amend the manner in which rounding occurs is consistent with the Act because the Exchange is proposing to make transparent the manner in which rounding will occur once the technology migration occurs. Today, BX rounds up or down to the nearest integer. With this proposal, the Exchange would round up to the nearest integer. Also, corresponding changes are being made, within Options 3, Section 10, to update the rounding methodology. Removing unnecessary language regarding remainders is also consistent with the Act because remainders of less than one contract cannot occur with the new rounding method.

The Exchange believes that rounding up uniformly is consistent with the Act because it provides for the equitable allocation of contracts among the Exchange's market participants. The Exchange proposes to provide market participants with transparency as to the number of contracts that they are entitled to receive as the result of rounding. Further, the Exchange believes that this methodology produces an equitable outcome during allocation that is consistent with the protection of investors and the public interest because all market participants are aware of the methodology that will be utilized to calculate outcomes for allocation purposes.

Options 3, Section 12 and 22

The adoption of Customer Cross Orders is consistent with the Act because this proposal would permit Participants to enter and execute paired Public Customer-to-Public Customer Orders automatically outside of a PRISM Auction, while also protecting Public Customer Orders on the book at the same price. Today, the Exchange permits an Initiating Participant to enter a PRISM Order for the account of a Public Customer paired with an order

[57] Market Makers have quoting obligations as specified in Options 2, Section 5(d).

[58] Market quotes are subject to various protections listed in Options 3, Section 15(c). These additional quoting protections permit Market Makers to manage their exposure at the Exchange. Other market participants would not be subject to these risk protections because they do not submit quotes or utilize SQF.

[59] *See* Phlx Options 3, Section 7(c)(2).

[60] Phlx Options 3, Section 7(c)(1) provides, ''Day. If not executed, an order entered with a TIF of ''Day'' expires at the end of the day on which it was entered. All orders by their terms are Day Orders unless otherwise specified. Day orders may be entered through FIX.''

[61] Phlx Options 3, Section 7(c)(4) provides, ''A Good Til Cancelled (''GTC'') Order entered with a TIF of GTC, if not fully executed, will remain available for potential display and/or execution unless cancelled by the entering party, or until the option expires, whichever comes first. GTC Orders shall be available for entry from the time prior to market open specified by the Exchange until market close.''

[62] 15 U.S.C. 78s(b)(1).

[63] *See* SR–BX–2020–7P.

for the account of a Public Customer and such paired orders will be automatically executed without a PRISM Auction.[64] The Exchange's proposal would continue to permit the ability to enter Public Customer-to-Public Customer paired orders to be automatically executed, however, not require these orders to be first entered into PRISM. A Public Customer-to-Public Customer order submitted into PRISM directly would be subject to execution pursuant to Options 3, Section 13(i) and (ii). The Exchange is removing the current provisions within Options 3, Section (iv) with this proposed rule change. Similar to ISE, GEMX and MRX rules,[65] BX would require Customer Crossing Orders to be entered into the Order Book. The Exchange's proposal would require executions to be at or between the best bid and offer on the Exchange and not at the same price as a Public Customer Order on the Exchange's Order Book. Finally, the execution may not be through the NBBO.

While the Exchange is limiting these orders to be entered through FIX, any market participant may utilize FIX. The Exchange believes that this proposal would allow all Participants the ability to continue automatically execute paired to enter Public Customer-to-Public Customer Orders as they do today, without the need to utilize PRISM. Public Customer-to-Public Customer Cross Orders will be rejected if they cannot be executed, as is the case today. Finally, Public Customer-to-Public Customer Cross Orders may only be entered in the regular trading increments applicable to the options class under Options 3, Section 3, as is the case today. Today, a Public Customer-to-Public Customer paired order could only be entered into PRISM to receive the treatment described within proposed Options 3, Section 13(vi). With this proposal, the manner in which Public Customer-to-Public Customer paired orders are being processed by the System is changing. With this proposal, Participants may enter Public Customer-to-Public Customer paired orders directly into FIX and receive the same treatment that these orders receive today when entered into PRISM. The only difference to a Participant is the manner in which the order must now be submitted directly into FIX to initiate a Customer Cross Order.

Further, the elimination of BX Options 3, Section 13(vi) is consistent with the Act because Public Customer-to-Public Customer Cross Orders would no longer be entered as PRISM Orders. With this proposal Public Customer-to-Public Customer Cross Orders would be entered through FIX as Customer Cross Order. The prohibition expressed within current BX Options 3, Section 13(vi) provided for only one PRISM Auction to be conducted at a time in any given series. Today, to initiate the Auction, the Initiating Participant must mark the PRISM Order for Auction processing. With this proposal, Public Customer-to-Public Customer Cross Orders would not be tagged as a PRISM Auction. The Public Customer-to-Public Customer Cross Orders would be entered as a separate order type and therefore would not potentially cause more than one PRISM Auction to occur in the same series.

In conjunction with this change, BX proposes to add the Customer Cross Order to Options 3, Section 22(a) and (c) as an exception to the rules for limitations on principal transactions and solicitation orders, which require Participants to expose trading interest to the market before executing agency orders as principal or before executing agency orders against orders that were solicited from other broker-dealers. Options 3, Section 22 contains language similar to current BX Options 3, Section 13(vi)(A). The Exchange believes that its proposal continue to protect customers and the general public by affirming that it is a violation of BX Options 3, Section 22(a)(1) for a Participant from executing agency orders to increase its economic gain from trading against the order without first giving other trading interests on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Participant was already bidding or offering on the book.[66] The Exchange would surveil Public Customer-to-Public Customer Cross Orders in the same fashion that it already surveils for these orders on ISE, GEMX and MRX.

Options 3, Section 13

The Exchange's proposal to amend the System functionality, within Options 3, Section 13, similar to ISE, GEMX and MRX Options 3, Section 13, to better any limit order or quote on the limit order book on the same side of the market as the PRISM Order, within Options 3, Section 13(i)(A) and (B), is consistent with the Act because expanding its consideration to both quotes and orders will consider a greater amount of interest present on BX's Order Book when initiating a PRISM. The addition of ''quotes,'' similar to ISE, GEMX and MRX at Options 3, Section 13, will enable the Exchange to consider additional interest in determining eligibility for PRISM. Today, BX Options 3, Section 13 only considers orders. With this System change, quotes and orders would be considered in determining the execution price of the PRISM order. This change will not impact the handling of orders and quotes and their respective priority on the limit order book. The Exchange is proposing to add ''or quote,'' within proposed Options 3, Sections 13(i) and (A) and (B) and (ii)(A)(1).

The Exchange's proposal to state the minimum increment allowable directly within the rule and not utilize references to Options 3, Section 3 is consistent with the Act because the Exchange will note the exact increment within the rule. This amendment does not amend the current System operation, rather it more simply states what that minimum increment is today. The Exchange proposes similar changes at Options 3, Section 13(ii)(A)(1), Options 3, Section 13(ii)(A)(6), Options 3, Section 13(ii)(C) and Options 3, Section 13(ii)(I).

The Exchange's proposal to amend the System functionality, within Options 3, Section 13(ii)(A)(1), for Surrender language is consistent with the Act because an Initiating Participant will be able to submit an Initiating Order with a configurable percentage designation of ''Surrender'' up to 40% or such lower percentage requested by the Participant. Today, the System permits an Initiating Participant to elect to receive either the full 40% allocation entitlement or no allocation at all. The Exchange believes that the proposed feature will provide an Initiating Participant with more flexibility to choose its priority allocation percentage, similar to functionality currently offered on ISE, GEMX and MRX at Options 3, Section 13(e)(5)(iii). Any Initiating Participant may elect to use the PRISM Surrender feature.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(1) to remove the following rule text, ''. . . forfeiting the priority and trade allocation privileges which he is otherwise entitled to as per. . .'', is consistent with the Act, because the proposed text defines ''Surrender'' as the percentage designation, which the Exchange believes more accurately defines ''Surrender.''

[64] *See* Options 3, Section 13(vi). The execution price for such a PRISM Order must be expressed in the quoting increment applicable to the affected series. Such an execution may not trade through the NBBO or trade at the same price as any resting Public Customer order.

[65] *See* ISE, GEMX and MRX Options 3, Section 12(a).

[66] *See* Options 3, Section 22(a)(1).

The Exchange's proposal to amend the second sentence of Options 3, Section 13(ii)(A)(1) to instead provide, ''If zero (0%) is specified, the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price,'' is consistent with the Act. The proposed text makes clear that if no percentage were elected for Surrender (0%) then the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(2) to add ''price'' to the PRISM Auction Notification or ''PAN,'' as part of the technology migration, is consistent with the Act because adding ''price'' to the list of details will provide Participants with greater transparency with respect to the PRISM and could encourage more competition in PRISM and greater opportunity for potential price improvement in PRISM. This rule change is similar to the behavior of PAN responses on ISE, GEMX and MRX.[67]

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(7) to conform the behavior of PAN responses to ISE, GEMX and MRX System behavior[68] is consistent with the Act. As noted above, the Exchange is amending the System to accept oversized responses. These responses will no longer cancel back, rather, PRISM will cap the response at the size of the Initiating Order for purposes of allocation and then cancel any remaining quantity not allocated in the PRISM, including any quantity in excess of the original PRISM quantity, back to the originator of the PAN response at the end of the auction timer. Responses are a source of liquidity and potential price improvement, the Exchange believes it is appropriate to accept these responses and cap them at the size of the Initiating Order.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(8) and (9) to replace the words ''immediately cancelled'' with ''rejected'' is a non-substantive technical amendment. Non-eligible and non-compliant orders that are submitted into PRISM are rejected as those orders are reviewed for compliance with Exchange Rules, these orders are not immediately cancelled, as technically there is time, however miniscule, between the submission of the order and the rejection of the order. The Exchange believes this non-substantive change adds more clarity to the rule text.

The Exchange's proposal to amend Options 3, Section 13(ii)(E)(2)(a) to provide the Initiating Participant with a priority allocation based on the initial size of the Initiating Order after Public Customer interest has been satisfied is consistent with the Act. Allocating based on the ''initial size of the Initiating Order'' provides an expectation for Participants that respond to PRISM Orders, whether that allocation is price/time,[69] size pro-rata[70] or auto-match.[71]

With this proposed change, the Exchange believes that Participants are better able to determine their allocation when responding with a PAN if the Initiating Participant's allocation is based on the initial size of the Initiating Order after Public Customer interest is satisfied, rather than the remaining contracts after Public Customer interest is satisfied. The Exchange's proposal provides greater transparency to market participants in that when they respond to the PRISM, they are aware of the initiating size, as compared to an undetermined remaining size which is unknown as responses are not visible to all market participants. The Exchange's proposal is similar to ISE, GEMX and MRX Options 3, Section 13(d)(3).[72]

The Exchange's proposal to amend rounding, within Options 3, Section 13(ii)(G), is consistent with the Act. Today, BX PRISM rounds up or down to the nearest integer when it allocates. The Exchange is amending the rounding methodology to round up to the nearest integer. Options 3, Section 13(ii)(G) will reflect the new methodology and provide notice to Participants of this change to the methodology. The rounding methodology will be uniformly applied when allocating PRISM Orders.

The Exchange's proposal to amend Options 3, Section 13(ii)(H) to remove the phrase ''then-existing'' and instead note ''at time of execution'' to describe the NBBO is consistent with the Act. The Exchange is not amending the current operation of the System, rather the Exchange is amending its rules to more accurately state, ''If there are PAN responses that cross the NBBO at the time of execution (provided such NBBO is not crossed), such PAN responses will be executed, if possible, at their limit price(s).'' The current text appeared to state that the System was utilizing the NBBO upon execution to check if the PAN responses crossed the NBBO, however, the System utilizes the NBBO at the time of arrival to check of the PAN responses cross the NBBO. This amendment promotes just and equitable principles of trade, because it will ensure the execution price does not cross the Initial NBBO in accordance with linkage rules. This proposed clarification is not changing current functionality, and this functionality applies in the same manner to the responses of all Participants.

The Exchange's proposal to amend Options 3, Section 13(ii)(I) is consistent with the Act, because the Exchange seeks to make clear the current text contained in this section. The Exchange's proposal to add context to the rule to better reflect the current System operation is consistent with the Act because without the word

[67] *See* ISE, GEMX and MRX Options 3, Section 13(c)(2).

[68] *See* ISE, GEMX and MRX Options 3, Section 13(c)(2).

[69] At the conclusion of the Auction, for option classes governed under BX's Price/Time execution algorithm, the PRISM Order will be allocated at the best price(s), pursuant to the priority set forth in proposed Options 3, Section 13(ii)(F)(1) through (4). First, Public Customer orders would have time priority at each price level. Next, the Initiating Participant would receive an allocation after Public Customer orders.

[70] At the conclusion of the Auction, for option classes governed under BX's Size Pro-Rata execution algorithm, the PRISM Order will be allocated at the best price(s), pursuant to the priority set forth in Options 3, Section 13(ii)(E)(1) through (5).

[71] If the Initiating Participant selected the auto-match option, the Initiating Participant would be allocated a number of contracts equal to the aggregate size of all other quotes, orders, and PAN responses at each price point until a price point is reached where the balance of the order can be fully executed, except that the Initiating Participant would be entitled to receive up to 40% (if there are multiple competing quotes, orders or PAN responses) or 50% (if there is only one competing quote, order or PAN response) of the contracts remaining at the final price point (including situations where the stop price is the final price) after Public Customer interest has been satisfied but before remaining interest receives an allocation.

[72] ISE, GEMX and MRX Options 3, Section 13(d)(3), provides, ''In the case where the Counter-Side Order is at the same price as Professional Interest in (d)(2), the Counter-Side order will be allocated the greater of one (1) contract or forty percent (40%) of the initial size of the Agency Order before Professional Interest is executed. Upon entry of Counter-Side orders, Members can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the Counter-Side order will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side order shall be allocated the greater of one contract or forty percent (40%) of the original size of the Agency Order, but only after Priority Customer Interest at such price point are executed in full. Thereafter, all Professional Interest at the price point will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Interest. An election to automatically match better prices cannot be cancelled or altered during the exposure period.''

''execution'' in this sentence, a comparison of the ''price of the PRISM auction'' does not clearly differentiate the price in question as the execution price of the PRISM Auction or the original stop price of the PRISM Order. Without this clear differentiation, current Options 3, Section 13(ii)(I) can be interpreted to describe scenarios that cannot happen. The Exchange's proposed addition of the word ''execution'' in the first sentence of Options 3, Section 13(ii)(I) reflects current System handling. The execution price of the PRISM Auction is utilized to compare to the price of an order on the limit Order Book. Adding the word ''execution'' makes clear to Participants that the initial PRISM stop price is not utilized to compare the same side of the market transactions. Also, if the potential execution price of the PRISM Order would be the same or better than the price of an order on the limit Order Book on the same side of the market as the PRISM Order then, today, would be executed at a price $0.01 better than such limit order, regardless of whether such limit was a Public or Non-Public Customer Order. While ''or better'' is not clearly specified, it is the case today and its inclusion is meant to capture cases where PAN responses provide price improvement for the PRISM Order at prices that are crossed with the same side interest mentioned above. The proposed wording is intended to provide greater clarity to Participants for System handling with respect to same side of the market executions against the Order Book and is consistent with the Act and the protection of investors and the general public. The proposed amendments reflect current System handling are would not result in changes to the System. The remaining amendments are technical in that the change and non-substantive as the change merely structures the paragraph into two sentences.

The Exchange's proposal to amend Options 3, Section 13(ii)(K) to add introductory text which defines a PRISM ISO is consistent with the Act. Phlx similarly describes a PIXL ISO in its rule text at Options 3, Section 13(b)(11).[73] This text does not amend the current System functionality, rather it adds context to the current PRISM rule in describing a PRISM ISO.

The Exchange's proposal to correct Options 3, Section 13(ii)(K) to add ''on the contra-side of the PRISM Order'' is consistent with the Act, because this rule text clearly describes the current System operation. The Exchange states ''on the contra-side of the PRISM Order'' to distinguish the contra-side from the same side of the order, which receives different treatment in allocation. This proposed amendment is intended to clarify the current System operation, not amend the System.

Finally, the Exchange's proposal to renumber Options 3, Section 13(vii) to ''(vi)'' is a technical non-substantive amendment.

Options 3, Section 23

The Exchange's proposal to amend Options 3, Section 23, Data Feeds and Trade Information, to update its descriptions of the BX Depth of Market (BX Depth) and BX Top of Market (BX Top) data feeds is consistent with the Act, because the updated descriptions will bring greater transparency to the Exchange's rules.

The Exchange's proposal will make clear that order imbalance information is provided for both an opening and re-opening process within BX Depth. Today, a re-opening process initiates after a trading halt has occurred intra-day. Also, the Exchange's proposal notes the specific information that would be provided in the data feed, namely the size of matched contracts and size of the imbalance. Finally the auction and exposure notifications are also provided in the data feed. The Exchange believes that this additional context to imbalance messages as well as also noting that auction and exposure notifications are provided will provide market participants with more complete information about what is contained in the data feed. This information is available today within the data feed. The proposed rule text is being amended to make clear what information is currently provided.

With respect to the BX Top data feed, within Options 3, Section 23(a)(2), the amended description more clearly describes the BX Top data feed. Further, the Exchange believes noting that the last trade information is provided will make clear to market participants the data that is currently available on BX Top. This information is available in the data feed today and the rule text is being amended to make clear what information is currently provided.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

Options 1, Section 1

The Exchange's proposal to amend the definition of ''Public Customer'' to conform to Phlx's definition does not impose an undue burden on competition because it will make clear that a Public Customer could be a person or entity and clarifying that a Public Customer is not a Professional, as defined within Options 1, Section 1(a)(48),[74] will make clear what it meant by that term. Today, a Public Customer is not a Professional. The term 'Professional'' is separately defined, within BX Options 1, Section 1(a)(48). In order to properly represent orders entered on the Exchange, Participants are required to indicate whether orders are ''Professional Orders.''

Further, the Exchange's proposal to remove a sentence within Options 1, Section 1(a)(48) which provides, ''A Participant or a Public Customers may, without limitation, be a Professional,'' does not impose an undue burden on competition. This sentence is confusing and not necessary. Phlx Options 1, Section 1(b)(46) does not contain a similar sentence. BX proposes removing this sentence because it does not add useful information to understanding who may qualify as a Professional.

Bid/Ask Differentials

The Exchange's proposal to amend BX's Lead Market Maker quotation rules to conform to those of other BX Market Makers does not impose an undue burden on competition. This proposal conforms the requirements for all Market Makers. Today, Lead Market Makers have higher quoting requirements and other obligations noted within Options 2, Section 3, than Market Makers, which accounts for their priority allocations, within Options 3, Section 10.[75] The Exchange is proposing

[73] Phlx Options 3, Section 13(b)(11) states, ''*PIXL ISO Order.* A PIXL ISO order (PIXL ISO) is the transmission of two orders for crossing pursuant to this Rule without regard for better priced Protected Bids/Offers (as defined in Options 5, Section 1) because the member transmitting the PIXL ISO to the Exchange has, simultaneously with the routing of the PIXL ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid/Offer that is superior to the starting PIXL Auction price and has swept all interest in the Exchange's book priced better than the proposed Auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PIXL Order.''

[74] BX Options 1, Section 1(a)(48) provides that, ''The term ''Professional'' means any person or entity that (i) is not a broker or dealer in securities, and (ii) places more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s). A Participant or a Public Customer may, without limitation, be a Professional. All Professional orders shall be appropriately marked by Participants.''

[75] *See* BX Options 3, Section 10(a)(1)(C)(1)(b) and Section 10(a)(2)(ii) which describe Lead Market Maker Priority.

to allow Lead Market Makers to obtain similar quoting relief as, today, may be provided to Market Makers. There is no limitation on the quoting relief that may be afforded to Market Makers today, the Exchange is proposing to conform the ability for the Exchange to grant quoting relief equally to Market Makers and Lead Market Makers in the same option series. Today, while a Lead Market Maker has higher quoting obligations they have less opportunity for quoting relief in a certain options series as compared to a Market Maker who is quoting in the same options series.

Replacing Options 2, Section 4(f)(4)–(6) with the rule text, within BX Options 2, Section 5(d)(2), would continue to require Lead Market Makers to quoted with a difference not to exceed $5 between the bid and offer regardless of the price of the bid. However, instead of requiring Lead Market Makers to quote a price differential for any in-the-money option series identical to those in the underlying security market, in the event the bid/ask differential in the underlying security is greater than the bid/ask differential set forth in subsections (f)(4) and (5), the Exchange would now permit the bid/ask differential to be as wide as the spread between the national best bid and offer in the underlying security when the market for the underlying security is wider than $5.

Further, the additional allowance and exemptions are no longer necessary because the Exchange proposes to add rule text, similar to BX Options 2, Section 4(f)(5) and BX Options 5, Section 5(d)(2), which permits BX to establish differences other than the stated bid/ask differentials, for one or more series or classes of options. The ability to establish differences, other than the stated bid/ask differentials, for one or more series or classes of options already exists today for BX Lead Market Maker quoting requirements, however this discretion is limited by BX Options 2, Section 4(f)(6).[76] The Exchange's proposal would align the procedural BX would follow with other options exchanges, which notify members in writing of any discretion that is being granted by the Exchange. BX would no longer file a report with BX operations. Today, no other Nasdaq exchange files a report when it grants exemptions, including exemptions for BX Market Makers. Decisions to grant exemptions are made based on current market conditions. Exchanges need to be able to react when market conditions change dramatically and require the Exchange to grant relief.

Options 3, Section 5

The Exchange's proposal to amend Options 3, Section 5(c) to add additional rule text similar to Phlx Options 3, Section 5(c) does not impose an undue burden on competition. Today, BX re-prices certain orders to avoid locking and crossing away markets, consistent with its Trade-Through Compliance and Locked or Crossed Markets obligations.[77] Orders which lock or cross an away market will automatically re-price one minimum price improvement inferior to the original away best bid/offer price to one minimum trading increment away from the new away best bid/offer price or its original limit price.[78] The re-priced order is displayed on OPRA. The order remains on BX's Order Book and is accessible at the non-displayed price.

Options 3, Section 7

The Exchange's proposal to amend the Cancel-Replacement Order, within Options 3, Section 7(a)(1), does not impose an undue burden on competition. Price and size are the terms that will determine if the Cancel-Replacement Order retains its priority, as is the case today, other terms and conditions do not amend the priority of the Cancel-Replacement Order. The Exchange is not amending the current System functionality of a Cancel-Replacement Order with respect to the terms that will cause the order to lose priority. Today, the price of the order may not be changed when submitting a Cancel-Replacement Order, that would be a new order.

With this proposal, all Cancel-Replacement Orders would receive price or other reasonability checks as a result of being viewed as new orders. If a Cancel-Replacement Order does not pass a price or other reasonability check, the order will cancel, but it will not be replaced with a new order. The Limit Order Price Protection and Market Order Spread Protection are the only risk protections within Options 3, Section 15 (Risk Protections) that are applicable. Price or other reasonability checks consider the current market at the time the Cancel-Replacement Order is entered. The Exchange proposes to begin applying price or other reasonability checks to all Cancel-Replacement Orders, similar to ISE, GEMX and MRX, to provide market participants with additional risk protection checks with the re-entry of the Cancel-Replacement Order. This proposed rule is similar to ISE, GEMX and MRX Rules at Options 3, Section 7 at Supplementary Material .02, except that ISE, GEMX and MRX discuss Reserve Orders, which are not available on BX.[79] All risk protections are noted within Options 3, Section 15. Those risk protections apply throughout the Rulebook, except where otherwise noted.

The Exchange's proposal to amend ''Market Orders,'' within Options 3, Section 7(a)(5) does not amend the manner in which a Market Order operates today on BX. The Exchange's proposal to add a notation at the end of the rule to provide that ''Participants can designate that their Market Orders not executed after a pre-established period of time, as established by the Exchange, will be cancelled back to the Participant, once an option series has opened for trading'' adds specificity regarding the opening. Market Orders submitted during the opening may be executed, routed (depending on instructions from the market participant) or cancelled if the Market Order is priced through the opening price. The Exchange would only cancel those Market Orders that remained on the Order Book once an option series opened. The pre-established period of time would commence once the intra-

[76] *See* BX Options 2, Section 4(f)(5).

[77] BX Options 3, Section 5(d) provides, ''An order will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. An order that is designated by the member as routable will be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions. An order that is designated by a member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions. If, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.''

[78] *See* Options 5, Section 4 (Order Routing), which describes the repricing of orders for both routable and non-routable orders within Options 5, Section 4(a)(iii)(A), (B) and (C).

[79] ISE, GEMX and MRX Options 3, Section 7 at Supplementary Material .02, provides, ''Cancel and Replace Orders shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, size is not increased, or in the case of Reserve Orders, size is not changed. If the replacement portion of a Cancel and Replace Order does not satisfy the System's price or other reasonability checks (*e.g.* Options 3, Section 15(b)(1)(A) and (b)(1)(B); and Supplementary Material .07 (a)(1)(A), (b) and (c)(1) to Options 8, Section 14) the existing order shall be cancelled and not replaced.''

day trading session begins for that options series and the order would be cancelled back to the Participant, provided the Participant elected to cancel back its Market Orders. The Exchange's proposal differentiates when the opening is on-going, and the intra-day trading session has not commenced, the manner in which the pre-established period of time would commence.

The proposal to note that ''Market Orders on the Order Book would be immediately cancelled if an options series halted, provided the Participant designated the cancellation of Market Orders'' specifically addresses trading halts within the rule. Once an options series halts for trading, the Exchange conducts another Opening Process. In the case where a Market Order was resting on the Order Book, and the Participant had designated the cancellation of Market Orders, in the event of a halt, the Market Orders resting on the Order Book would immediately cancel. Market Orders would apply uniformly to all market participants.

The Exchange's proposal to amend ''Intermarket Sweep Order'' Order or ''ISO,'' within Options 3, Section 7(a)(6), does no impose an undue burden on competition. The Exchange is amending the current functionality of an ISO Order to require that ISOs have a time-in-force designation of Immediate-or-Cancel. Today, ISOs with a time-in-force designation of GTC are treated as having a time-in-force designation of Day. All ISO Orders would be treated in a uniform manner.

The Exchange's proposal to remove the ''One-Cancels-the-Other Order'' and ''WAIT'' TIF do not impose an undue burden on competition. The Exchange will no longer permit this order type and TIF for any market participant with the technology migration. Further, it will remove an order type that is not in demand on BX and simply the offerings provided by BX.

The Exchange's proposal to include a ''PRISM Order'' and ''Customer Cross Order'' in the list of order types does not impose an undue burden on competition because the addition of these terms within the list of order types simply cross-references the existing order types and does not change the functionality of the order types.

The Exchange's proposal to amend an ''Immediate-Or-Cancel'' Order or ''IOC,'' within Options 3, Section 7(b)(2), does not impose an undue burden on competition. The Exchange is adding additional context, similar to Phlx, with respect to routing, submission through FIX or SQF and the price protections that apply when utilizing SQF, which will provide market participants with greater information for the protection of investors and the general public. Market Makers utilize IOC Orders to trade out of accumulated positions and manage their risk when providing liquidity on the Exchange. Proper risk management, including using these IOC Orders to offload risk, is vital for Market Makers, and allows them to maintain tight markets and meet their quoting and other obligations to the market. The Exchange believes that allowing Market Makers to submit IOC Orders though their preferred protocol increases their efficiency in submitting such orders and thereby allow them to maintain quality markets to the benefit of all market participants that trade on the Exchange. Further, unlike other market participants, Market Makers provide liquidity to the market place and have obligations.[80] The Exchange believes not offering Order Price Protection and Market Order Spread Protection for IOC Orders entered through SQF does not create a burden on competition because Market Makers have more sophisticated infrastructures than other market participants and are able to manage their risk, particularly with respect to quoting, using tools that are not available to other market participants.[81]

The remainder of the amendments, within Options 3, Section 7, are technical in nature or non-substantive.

Options 3, Section 10

The Exchange's proposal to amend its Order Book allocation rule, within Options 3, Section 10, to amend the manner in which rounding occurs does not create a burden on competition because the Exchange is proposing to make transparent the manner in which rounding will occur once the technology migration occurs. All Participants will be subject to the rounding methodology when PRISM Orders allocate.

Options 3, Section 12 and 22

The adoption of Customer Cross Orders does not impose an undue burden on competition. This proposal would continue to permit any Participant to enter and execute paired Public Customer-to-Public Customer Orders automatically outside of a PRISM Auction, while also protecting Public Customer Orders on the book at the same price. Today, the Exchange permits an Initiating Participant to enter a PRISM Order for the account of a Public Customer paired with an order for the account of a Public Customer and such paired orders will be automatically executed without a PRISM Auction.[82] While the Exchange is limiting these orders to be entered through FIX, any market participant may utilize FIX. The Exchange's proposal would continue to permit the ability to enter Public Customer-to-Public Customer paired orders to be automatically executed, however, not require these orders to be first entered into PRISM. A Public Customer-to-Public Customer order submitted into PRISM directly would be subject to execution pursuant to Options 3, Section 13(i) and (ii). With this proposal, all Participants may enter Public Customer-to-Public Customer paired orders into FIX and receive the same treatment that these orders receive today when entered into PRISM. The elimination of Options 3, Section 13(vi) does not impose an undue burden on competition because Public Customer-to-Public Customer Cross Orders would be entered as a separate order type and therefore would not potentially cause more than one PRISM Auction to occur in the same series.

Options 3, Section 13

The Exchange's proposal to amend the System functionality, within Options 3, Section 13, similar to ISE, GEMX and MRX Options 3, Section 13, to better any limit order or quote on the limit order book on the same side of the market as the PRISM Order, within Options 3, Section 13(i)(A) and (B), does not impose an undue burden on competition. The addition of ''quotes,'' similar to ISE, GEMX and MRX at Options 3, Section 13, will enable the Exchange to consider additional interest in determining eligibility for PRISM.

The Exchange's proposal to state the minimum increment allowable directly within the rule and not utilize references to Options 3, Section 3 does not impose an undue burden on competition as these amendments merely restate the current increment.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(1), for Surrender language does not impose an undue burden on competition because, with this proposal, all Participants will be able to submit an Initiating Order

[80] Market Makers have quoting obligations as specified in Options 2, Section 5(d).

[81] Market quotes are subject to various protections listed in Options 3, Section 15(c). These additional quoting protections permit Market Makers to manage their exposure at the Exchange. Other market participants would not be subject to these risk protections because they do not submit quotes or utilize SQF.

[82] *See* BX Options 3, Section 13(vi). The execution price for such a PRISM Order must be expressed in the quoting increment applicable to the affected series. Such an execution may not trade through the NBBO or trade at the same price as any resting Public Customer order.

with a configurable percentage designation of ''Surrender'' up to 40% or such lower percentage requested by the Participant. Today, the System permits a Participant to have either a Surrender of 0% or 40%. The Exchange believes that the proposed feature will provide all Participants with more flexibility, similar to functionality currently offered on ISE, GEMX and MRX at Options 3, Section 13(e)(5)(iii).

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(1) to remove the following rule text, ''. . .forfeiting the priority and trade allocation privileges which he is otherwise entitled to as per. . .'', does not impose a burden on competition because the proposed text defines ''Surrender'' as the percentage designation, which the Exchange believes more accurately defines ''Surrender''.

The Exchange's proposal to amend the second sentence of Options 3, Section 13(ii)(A)(1) to instead provide, ''If zero (0%) is specified, the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price,'' does not impose a burden on competition. The proposed text makes clear that if no percentage were elected for Surrender (0%) then the Initiating Order will only trade if there is not enough interest available to fully execute the PRISM Order at prices which are equal to or improve upon the stop price.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(2) to add ''price'' as a detail, which is specified today for a PRISM Auction Notification or ''PAN,'' does not impose a burden on competition because adding ''price'' to a PAN will be greater transparency with respect to the PRISM and could encourage more competition in PRISM and greater opportunity for potential price improvement in PRISM.

The Exchange's proposal to amend Options 3, Section 13(ii)(A)(7) to conform the behavior of PAN responses to ISE, GEMX and MRX System behavior [83] does not impose a burden on competition. As noted above, the Exchange is amending the System to accept oversized responses. These responses will no longer cancel back, rather, PRISM will cap the response at the size of the Initiating Order for purposes of allocation for all Participants.

The Exchange's proposal amend Options 3, Section 13(ii)(A)(8) and (9) to replace the words ''immediately cancelled'' with ''rejected'' is a non-substantive technical amendment.

The Exchange's proposal to amend Options 3, Section 13(ii)(E)(2)(a) to provide the Initiating Participant with a priority allocation based on the initial size of the Initiating Order after Public Customer interest has been satisfied does not impose a burden on competition. With this proposed amendment, all Participants would be allocated based on the initial size of the Initiating Order after Public Customer interest has been satisfied. The Exchange's proposal is similar to ISE, GEMX and MRX Options 3, Section 13(d)(3).[84]

The Exchange's proposal to amend rounding, within Options 3, Section 13(ii)(G), does not impose a burden on competition. The rounding methodology will be uniformly applied when allocating PRISM Orders.

The Exchange's proposal to amend Options 3, Section 13(ii)(H) to remove the phrase ''then-existing'' and instead note ''at time of execution'' to describe the NBBO does not impose a burden on competition. The Exchange is not amending the current operation of the System. The Exchange will uniformly check if the PAN responses crossed the NBBO at the time of execution.

The Exchange's proposal to amend Options 3, Section 13(ii)(I) does not impose an undue burden on competition. Without the word ''execution'' in this sentence, a comparison of the ''price of the PRISM auction'' does not clearly differentiate the price in question as the execution price of the PRISM Auction or the original stop price of the PRISM Order. Without this clear differentiation, Options 3, Section 13(ii)(I) can be interpreted to describe scenarios that cannot happen. The Exchange's proposed addition of the word ''execution'' in the first sentence of Options 3, Section 13(ii)(I) reflects current System handling. The execution price of the PRISM Auction is utilized to compare to the price of an order on the limit Order Book. Adding the word ''execution'' makes clear to Participants that the initial PRISM stop price is not utilized to compare the same side of the market transactions. While ''or better'' is not clearly specified, it is the case today and its inclusion is meant to capture cases where PAN responses provide price improvement for the PRISM Order at prices that are crossed with the same side interest mentioned above. The proposed wording is intended to provide greater clarity to Participants for System handling with respect to same side of the market executions against the Order Book. The proposed amendments reflect current System handling are would not result in changes to the System. The remaining amendments are technical and non-substantive.

The Exchange's proposal to amend Options 3, Section 13(ii)(K) to add introductory text which defines a PRISM ISO does not impose a burden on competition. Phlx similarly describes a PIXL ISO in its rule text at Options 3, Section 13(b)(11).[85] This text does not amend the current System functionality, rather it adds context to the current PRISM rule in describing a PRISM ISO.

The Exchange's proposal to correct Options 3, Section 13(ii)(K) to add ''on the contra-side of the PRISM Order'' does not impose a burden on competition because this rule text clearly describes the current System operation. The Exchange provides that ''on the contra-side of the PRISM Order'' to distinguish the contra-side from the same side of the order, which receives different treatment in allocation. This proposed amendment is intended to clarify the current System operation, not amend the System.

[83] *See* ISE, GEMX and MRX Options 3, Section 13(c)(2).

[84] ISE, GEMX and MRX Options 3, Section 13(d)(3), provides, ''In the case where the Counter-Side Order is at the same price as Professional Interest in (d)(2), the Counter-Side order will be allocated the greater of one (1) contract or forty percent (40%) of the initial size of the Agency Order before Professional Interest is executed. Upon entry of Counter-Side orders, Members can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the Counter-Side order will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side order shall be allocated the greater of one contract or forty percent (40%) of the original size of the Agency Order, but only after Priority Customer Interest at such price point are executed in full. Thereafter, all Professional Interest at the price point will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Interest. An election to automatically match better prices cannot be cancelled or altered during the exposure period.''

[85] Phlx Options 3, Section 13(b)(11) states, ''*PIXL ISO Order.* A PIXL ISO order (PIXL ISO) is the transmission of two orders for crossing pursuant to this Rule without regard for better priced Protected Bids/Offers (as defined in Options 5, Section 1) because the member transmitting the PIXL ISO to the Exchange has, simultaneously with the routing of the PIXL ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid/Offer that is superior to the starting PIXL Auction price and has swept all interest in the Exchange's book priced better than the proposed Auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PIXL Order.''

Finally, the Exchange's proposal to renumber Options 3, Section 13(vi) to ''(v)'' is technical and non-substantive.

Options 3, Section 23

The Exchange's proposal to amend Options 3, Section 23, Data Feeds and Trade Information, to update its descriptions of the BX Depth of Market (BX Depth) and BX Top of Market (BX Top) data feeds does not impose an undue burden on competition because the updated descriptions will bring greater transparency to the Exchange's rules.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act [86] and subparagraph (f)(6) of Rule 19b–4 thereunder.[87]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–BX–2020–017 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–BX–2020–017. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–BX–2020–017 and should be submitted on or before August 31, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[88]

J. Matthew DeLesDernier,

Assistant Secretary.

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[86] 15 U.S.C. 78s(b)(3)(A)(iii).

[87] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) requires the Exchange to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[88] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89465; File No. SR–LCH SA–2020–003]

Self-Regulatory Organizations; LCH SA; Notice of Filing of Proposed Rule Change, as Modified by Amendment No. 1, Relating to LCH SA's Governance Arrangements

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4,[2] notice is hereby given that on July 23, 2020, Banque Centrale de Compensation, which conducts business under the name LCH SA (''LCH SA''), filed with the Securities and Exchange Commission (''Commission'') the proposed rule change (''Proposed Rule Change''), as described in Items I, II and III below, which Items have been prepared by the clearing agency. On July 29, 2020, LCH SA filed Amendment No. 1 to the proposed rule change.[3] The Commission is publishing this notice to solicit comments on the proposed rule change, as modified by Amendment No. 1 (the ''proposed rule change''), from interested persons.

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change

LCH SA, a registered clearing agency and self-regulatory organization, is a majority-owned subsidiary of LCH Group Holdings Limited (''LCH Group'').[4] LCH Group is indirectly majority-owned by London Stock Exchange Group PLC (''LSEG''). LCH SA is proposing to amend its governance documents (''Governance Documents'') including: (i) The Terms of Reference (''ToR'') of the Board of Directors (''Board''); and (ii) the TOR of the current committees of the Board. The Proposed Rule Change will also establish ToR of a Nominating Committee for LCH SA.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] LCH SA filed Amendment No. 1 to correct the Exhibit 5 to the original filing to reflect a change in Article 13 of the Terms of Reference of the Board of Directors of LCH SA, which is described below, and to correct an erroneous citation in Item II.A.2 below.

[4] LCH Group owns 88.9 percent of LCH SA; Euronext N.V. owns 11.1 percent of LCH SA. LCH Group is also the parent of LCH Limited, a central counterparty (''CCP'') authorized to offer services and activities in the European Union in accordance with the European Markets Infrastructure Regulation (''EMIR'') and registered with the Commodity Futures Trading Commission (''CFTC'') as a derivatives clearing organization (''DCO'').

II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, LCH SA included statements concerning the purpose of and basis for the Proposed Rule Change and discussed any comments it received on the Proposed Rule Change. The text of these statements may be examined at the places specified in Item IV below. LCH SA has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Proposed Rule Change is being adopted in significant part to conform LCH SA's Governance Documents to actions taken by LCH Group to simplify its governing arrangements and to eliminate provisions in LCH Group's governance documents that they have determined are unnecessary and outdated. These changes will allow the LCH group as a whole to operate more efficiently and effectively. Although LCH SA's Governance Documents will be revised to reflect the changes to the LCH Group's governing arrangements described below, in practice, these revisions will not result in any substantive changes in LCH SA's current governance.

a. Background

In connection with its purchase of approximately 58 percent of LCH Group [5] in 2013, LSEG entered into a Relationship Agreement with LCH Group for the purpose of (i) assuring certain protections for minority LCH Group shareholders, (ii) providing for representation of stakeholders in the CCPs that comprise LCH Group, *i.e.,* the clearing members of each CCP and the exchanges whose transactions were cleared through LCH SA or LCH Limited, and (iii) recognizing LSEG's requirements as majority shareholder for appropriate controls over LCH Group.[6] To this end, among other provisions, the Relationship Agreement: (i) Set out certain Core Operating Principles to be applied in managing the business of LCH Group; (ii) provided that the Board of Directors of LCH Group and each CCP would be comprised of a prescribed mix of independent non-executive directors, executive directors, User Directors,[7] exchanges (''Venues'') and LSEG representatives; (iii) provided that LCH Group would have a separate Audit Committee and Remuneration Committee independent of the parallel committees at each CCP; and (iv) provided for a Nomination Committee, which would be responsible for nominating independent non-executive directors, User Directors and Venue Directors of the Board of Directors and committee members at LCH Group and each CCP.

The Relationship Agreement also provided for certain minority protection reserved matters, which would require the approval of 80 percent of votes cast on a resolution, including: (i) Altering the constitutional documents of LCH Group; (ii) making material changes to the Core Operating Principles; (iii) proposals to wind-up LCH Group or any material LCG Group company; and (iv) material amendments to the Relationship Agreement.

In addition, the Relationship Agreement contained customary consent rights for LSEG as a majority shareholder, including: (i) Approval of business and budget plans; (ii) matters representing changes from the Core Operating Principles; (iii) material changes to regulatory obligations and risk profile; (iv) material acquisitions/disposals; and (v) settlement of material litigation (collectively, ''Consent Matters''). The Relationship Agreement also reserved for LSEG the right to put certain matters to shareholder vote where LCH Group either failed to consider the matter or considered it and voted it down (''Push Matters'').[8]

As noted above, LCH Group has determined to simplify its governing arrangements and to eliminate provisions in LCH Group's governance documents that are unnecessary and outdated. In this regard, LCH Group and LSEG have decided to terminate the Relationship Agreement and to remove duplication in board decision-making between LCH Group and the CCP Boards by making the LCH Group Board an internal only board, *i.e.,* comprised only of representatives of LSEG and LCH Group. The LCH Group Articles of Association similarly will be revised to eliminate those provisions arising from the Relationship Agreement.

The Relationship Agreement is no longer necessary because certain contractual provisions are provided for in law of regulation and other provisions are historic and no longer relevant. Importantly, since 2013, LSEG has added to its shareholdings in LCH Group and now owns approximately 83 percent of LCH Group. Therefore, the minority protection provisions noted above are no longer relevant as LSEG alone could approve such matters by voting its shares. As explained below, however, certain protections in the Relationship Agreement will be incorporated into the revised ToR of the Board of Directors.[9]

b. Proposed Amendments to the ToR

As noted earlier, the Proposed Rule Change is being adopted in significant part to conform LCH SA's Governance Documents to actions taken by LCH Group to simplify its governing arrangements. These changes will allow the LCH group as a whole to operate more efficiently and effectively. Importantly, there will be no change in the proportion of independent directors [10] or the number of directors representing members and participants. Therefore, the Board and the committees of the Board will continue to assure fair representation of its members and participants in the selection of its directors and the administration of its affairs as provided in section 17A(b)(3)(C) of the Act.[11]

Terms of Reference of the Board of Directors

The ToR of the Board will be amended as necessary to remove those provisions that are no longer required as a result of the termination of the Relationship Agreement and the amendment of the LCH Group Articles of Association:

- Article 2, Definitions, will be amended to remove those definitions arising from the Relationship Agreement, including: (i) Core Operating Principles; (ii) Customer; (iii) Customer Director; (iv) Group Nomination Committee (which is being disbanded); (v) LSEG Audit Representative; (vi) LSEG Consent Matters; (vii) LSEG NomCom Representative; (viii) Material Interest; (ix) Minority Protection Reserved

[5] LCH Group was then known as LCH.Clearnet Group Limited.

[6] As appropriate, provisions of the Relationship Agreement were reflected in the LCH Group Articles of Association and the ToR of the LCH Group Board of Directors.

[7] User Directors are individuals that are associated with or connected to clearing members that are also shareholders of LCH Group.

[8] LSEG never exercised this right.

[9] Such protections include but are not limited to certain consent rights and the right to have a representative on the Board of Directors of LCH SA and LCH Limited, as well as the several committees of LCH SA and LCH Limited

[10] The ToR of the LCH SA Board defines an independent director as a director who satisfies applicable Regulatory Requirements, *i.e.,* any regulation or requirement of applicable law or of any applicable regulatory body, regarding independent directors, and who is appointed in accordance with the Nomination Committee ToR.

[11] 15 U.S.C. 78q–1(b)(3)(C).

Matters; (x) Push Matters: (xi) Relationship Agreement; (xii) Significant Interest; (xiii) Venue; (xiv) Venue Director.

• Article 3, Composition of the Board, will be amended (i) to remove the requirement that the Chairman of LCH Group will be a non-executive director of the Board, (ii) to confirm that LSEG is entitled to a representative on the Board unconditionally,[12] (iii) to remove the requirement for a Venue Director,[13] and (iv) to confirm that Euronext is entitled to propose the appointment of a representative to the Board as long as either the Cash Clearing Agreement or the Derivatives Clearing Agreement between Euronext and LCH SA remains in force.[14] Article 3 will be further amended to provide that the Chief Risk Officer of LCH Group may, but is not required to, be one of the three executive Directors of the Board. Article 3 currently provides that the Chief Risk Officer of LCH Group, along with the CEO of LCH SA and the CEO of LCH Group will be the executive Directors of the Board. Finally, Article 3 references the new Nomination Committee, rather than the Group Nomination Committee.

• Article 4, Rules applicable to Directors, will be amended to remove references to the Relationship Agreement (and Consent Matters, Minority Protection Reserved Matters and Push Matters therein) and refer only to rights of consent that LSEG may have under this ToR.

• Article 6, Quorum, will be amended to make a technical correction to the first sentence of the article. The sentence currently provides that the Board ''may validly deliberate only if half of the Directors are present.'' This sentence could be interpreted to mean that the Board could not deliberate if more than half of the Directors are present, which clearly is not intended. As proposed to be revised, this sentence will confirm that the Board ''may validly deliberate only if at least half of the Directors are present.''

• Article 12, Powers of the Board, will be amended to remove references to the Relationship Agreement, including the Core Operating Principles. However, the amendments to Article 12 will also confirm that the Board's authority with respect to certain matters remains subject to LSEG's consent. These matters, previously included in the Relationship Agreement, include: (i) Approval of LCH SA's annual operating and capital expenditure budget; (ii) approval of any material changes to LCH SA's budget; (iii) approval of the terms and conditions of any merger agreement between the LCH SA and a third party; and (iv) approval of a decision of LCH SA to issue new shares. LSEG's consent will also be required with regard to any matter that constitutes a material increase in the risk profile of LCH SA's investment policy or capital management policy that would result in a material decrease in LCH SA's available liquidity resources (subject to certain exceptions). In addition, LSEG's consent will be required with respect to (a) any recommended changes to the structure, size and composition of the Board that the Board, upon recommendations from the Nomination Committee, may recommend for approval by a general meeting of the shareholders, and (b) the ToR of any Board committees and any changes thereto, to the extent provided for in the ToR of the Board or the ToR of the affected committee.

Article 12 will also be amended to reflect the existing group dividend policy including the factors to be taken into account when determining the dividend (as currently set out in the Relationship Agreement and the Euronext shareholders' agreement). Dividends are subject to the vote of the shareholders, having regard for: (i) Applicable regulatory and regulatory capital requirements; (ii) restrictions in any finance documents; (iii) investment to support capital expenditure contemplated by the business plan and budget from time to time, including technology, taking into account future expected cash flows; and (iv) applicable laws.

Moreover, Article 12 will be amended to clarify that the Board will approve at least annually the LCH Group Risk Governance Framework and LCH SA's various policies, including LCH SA's: (i) Financial Resource Adequacy Policy; (ii) Default Management Policy; (iii) Collateral Risk Policy; (iv) Investment Risk Policy; (v) Liquidity Risk Policy; (vi) Settlement, Payment & Custody Risk Policy; (vii) Counterparty Credit Risk Policy; (viii) Contract and Market Acceptability Policy; (ix) Model Governance, Validation & Review Policy; (x) Operational Risk Policy; (xi) and Procyclicality Policy and any significant changes to those policies upon recommendations from the Risk Committee. Finally, Article 12 will be amended to confirm that, in appointing the Chairman of the Board and the LCH SA CEO, the Board will act in accordance with the ToR of the Nomination Committee.

• Article 13, Company management (Chairman—CEO), will be amended to provide that certain actions, which previously the CEO was authorized to take with the consent of the Board, may be undertaken only after consultation with the board of LCH Group. These activities include: (i) Any type of joint venture arrangement between LCH SA and any third party; (ii) any acquisition of a business with a valuation representing five percent or more of LCH SA's net revenue stated in the last audited accounts published by LCH SA; (iii) any disposal of all or any material part of LCH SA's business; (iv) any decision to cease to operate all or any material part of LCH SA's business; (v) any acquisition or disposal of shares or any interest in shares of LCH SA, any significant investment in any third party or the making of any takeover offer; and (vi) any material acquisitions and disposals, including in relation to intellectual property and LCH SA's various business segments and group undertakings.[15] In addition, Article 13 will be amended to authorize the CEO or the CEO's management team to provide to LSEG (subject to all laws and regulations (including antitrust laws and regulations)), (a) sufficient financial and other information that LSEG may reasonably require to meet any applicable reporting requirements or standards and LSEG's budgeting and forecasting processes; and (b) the audited accounts for each financial year and monthly management reports, consistent with LSEG's existing rights under the Relationship Agreement.

Article 13 will also be amended to provide that, in line with LSEG's consent rights in the Relationship Agreement, LSEG will have the right to consent with regard to the settlement of any litigation that could result in a

[12] Article 3 currently provides that LSEG is entitled to a representative on the Board ''for so long as LSEG is entitled to exercise or control the exercise of at least 5 percent of the votes able to be cast on all or substantially all matters at general meetings in LCH Group Holdings Limited''.

[13] With the exception of Euronext, there have been no Venue representatives on the LCH SA Board for some time. This is because a Venue must also be a shareholder of LCH Group in order to qualify for representation on the Board. Nasdaq was the last significant Venue on the LCH Group shareholder register but sold its stake in 2018. Since then, there has only been one entity that is a combination of a User/Venue and that entity has shown no interest in being represented on any LCH board. Euronext was a shareholder of LCH Group, but moved its ownership stake to LCH SA in 2017. However, it is entitled to a Board representation through its contractual arrangements, *i.e.,* the Cash Clearing Agreement and Derivatives Clearing Agreement.

[14] In accordance with the terms of the agreement pursuant to which Euronext N.V. purchased 11.1 percent of the shares of LCH SA, Euronext is already entitled to propose a representative to the Board.

[15] For the purposes of this paragraph, an acquisition or disposal will be material if the value of the consideration or the assets that are the subject of the transaction exceed an aggregate amount of €10,000,000.

payment to or by LCH SA in excess of €2,000,000 and with regard to any IT investments proposed to be made by LCH SA if they exceed an aggregate annual amount of € 3,000,000.

• Article 14, Conflicts of Interest, will be amended to provide that, notwithstanding the general prohibition on a Director nominated by a shareholder of LCH Group from sharing information with the shareholder of LCH Group without the consent of the independent non-executive Directors of the Board, information may be shared with LSEG, in its capacity as an indirect shareholder of LCH SA, for legal, accounting, tax regulatory or disclosure purposes.

• Article 15, Committees of the Board, will be amended to note (i) the addition of a new committee, the Technology, Security and Resilience Committee, and (ii) that the Group Nomination Committee is now the Nomination Committee, *i.e.,* a committee of LCH SA.

• Article 16, Audit Committee, will be amended to remove the requirement that the ToR of the Audit Committee must be substantially similar to the terms of reference of the Audit Committee of LCH Group (as this will no longer exist) and to recognize that changes in the ToR may be required by LCH SA's regulators (and not LCH Group's regulators) or any applicable law or regulation. The ToR must be reviewed annually by the Board, and (ii) are subject to the approval of the Board and to the consent of LSEG, in respect of the rights of LSEG under the ToR. Finally, the amended Article 16 will confirm that a Director representing LSEG and a Director representing Euronext will be a part of the Audit Committee.

• Article 17, Risk Committee, will confirm that a Director representing LSEG will be vice-chairman of the Risk Committee. The ToR must be reviewed annually by the Board, and (ii) are subject to the approval of the Board and to the consent of LSEG, in respect of the rights of LSEG under the ToR.

• Article 18, Nomination Committee, will be amended to remove any reference to the Group Nomination Committee and the requirement that, in the event LCH SA establishes its own Nomination Committee, its ToR must be substantially similar to the terms of reference of the LCH Group Nomination Committee. As amended, Article 18 will provide that the ToR of the Nomination Committee (i) must be reviewed annually by the Board, and (ii) are subject to the approval of the Board and to the consent of LSEG.[16] In addition, Article 18 confirms that a Director representing LSEG will be a member of the Nomination Committee.

• Article 19, Remuneration Committee, will be amended to remove the provision requiring the ToR to take into account the remuneration policies and principles of the LCH Group Remuneration Committee (which is being disbanded). However, the requirement to take into account the remuneration policies and principles applied by LSEG for its executive management remains. Any change in LSEG's rights under the ToR is subject to LSEG's consent. Finally, Article 19 confirms that a Director representing LSEG will be a member of LCH SA's Remuneration Committee.

• Article 20, Technology, Security and Resilience Committee, is a new article that recognizes the establishment of the Technology, Security and Resilience Committee, and provides that its organization and functions will be set out in a ToR, which are reviewed annually and subject to the approval of the Board.

• Article 25, Related party agreements between LCH SA and a manager, a Director or a shareholder, will be amended to provide that any contracts and agreements between LCH SA and LSEG or any member of the LSEG Group,[17] will be subject to the prior approval of a committee of the Board consisting solely of the independent non-executive directors of LCH SA. The article further provides that approval will be given provided that the contract or agreement is on bona fide arm's length terms. The committee's determination will be final.

• New Article 26, Group Compliance, will provide that, in light of LSEG's obligations under the Financial Conduct Authority's Listing Rules, the Board will notify LSEG of any proposed transaction in relation to LCH SA or of which the Board is otherwise aware that may constitute for LSEG either (i) a significant transaction under Listing Rule 10, or (ii) a related party transaction under Listing Rule 11. Further, if LSEG informs the Board that the proposed transaction constitutes a transaction (or other relevant matter) under Listing Rule 10 or 11, the transaction will not take place without the prior approval of LSEG.

• New Article 27, Amendment, will provide that the Board ToR may be amended by the Board, provided that any changes to LSEG's rights or any changes which would otherwise have a detrimental effect on LSEG's rights pursuant to the ToR will be subject to LSEG's consent.

Terms of Reference of the Nomination Committee

As noted earlier, as a part of the LCH Group governance changes, the committees of the Board of LCH Group will be disbanded. Therefore, LCH SA will establish its own Nomination Committee. Although this ToR is entirely new to LCH SA, it is based in substantial part on the provisions of the Group Nomination Committee applicable to LCH SA.

The structure of the Board established under the Nomination Committee ToR will be essentially the same as it is today. Specifically, Article 2, Purpose, will provide that the Nomination Committee will recommend: (i) An independent Chairman; (ii) up to four independent directors; (iii) up to two User Directors; (iii) a director nominated by LSEG; and (iv) a director nominated by Euronext.[18] In addition, the Board will have three Executive Directors: (a) The CEO of LCH SA; (b) the CEO of LCH Group; and (c) the chief risk officer of LCH Group, or ''such other officer as may be proposed by the Group CEO''.

As discussed above, under the Nomination Committee ToR, there will be no change in the proportion of independent directors or the number of directors representing members and participants. It should be noted, however, that the Group Nomination Committee ToR had provided for up to two representatives of Venues. As explained earlier, with the exception of Euronext, there have been no Venue representatives on the LCH SA Board for some time. Because Euronext is entitled to Board representation through its contractual arrangements, *i.e.,* the Cash Clearing Agreement and Derivatives

[16] Note that, under Article 18, LSEG's consent is required for any amendment of the ToR of the Nomination Committee, not just amendments to LSEG's rights under the ToR. The reason for this slightly wider consent right (compared to other ToRs) is that the LCH Group Nomination Committee ToR required LSEG consent for any amendment, and the Relationship Agreement required any CCP Nomination Committee to have substantially similar terms to the LCH Group Nomination Committee ToR.

[17] LSEG Group means London Stock Exchange Group plc and its subsidiaries from time to time other than those entities comprising the LCH Group.

[18] Although both LSEG and Euronext are entitled to recommend the candidate to serve as a Director of the Board, the candidates are subject to consideration by the Nomination Committee and may be rejected if the Nomination Committee determines the candidate is not appropriate. In considering the candidates, the Nomination Committee will take into account (i) the seniority, experience, skill and expertise of each candidate, and (ii) the regulatory good standing of each candidate. ToR Articles 3 and 4.

Clearing Agreement, LCH SA has determined that there is no reason to provide for additional Venue directors in the LCH SA Nomination Committee ToR.

Article 5, Executive Management Team, will provide that LCH SA's CEO, in consultation with the LCH Group CEO will be responsible for appointing the management team for LCH SA. This provision is intended to ensure independence at the CCP level.

Article 6, Duties and Powers of the Committee, will set out the duties and powers of the Nomination Committee. Among other duties, the committee must: (i) Be satisfied that candidates understand the responsibilities of Board membership and be able to devote to necessary time to LCH SA matters; (ii) ensure that its recommended candidates are respected for their competence and are of good standing in their field of business; and (iii) keep itself informed of any changes in law or regulations applicable to the composition of the Board and other matters for which the committee is responsible.[19]

Article 7, Procedures of the Committee, will set out the procedures of the Nomination Committee. As they relate to the appointment of the Chairman and the Independent Directors, Article 7 will provide that the committee will maintain a short list of potential candidates and consult with the CEO of LCH Group and the CEO and the Chairman of LSEG as to the suitability of the candidates. With regard to the appointment of a new Chairman, the committee will also consult with the Independent Directors.

Article 7 further provides that, in determining whether a candidate is fit for appointment as Chairman or as an Independent Director, the committee will consider whether there are relationships or circumstances (including with LSEG or any member of LSEG Group) likely to affect such person's judgment and whether the candidate has a relationship that would disqualify such person as a ''public director'' within the meaning of CFTC rules in force from time to time or as an ''independent director'' under any corporate governance standards applicable from time to time, or which the Board otherwise determines should be complied with in the interests of best practice corporate governance.[20]

Finally, in making recommendations with regard to Independent Directors, the committee will take into account that there should be among the Independent Directors: (i) A breadth of industry expertise and experience and product knowledge; (ii) particular expertise and experience in each of risk management, audit, clearing services and financial services; and (iii) diversity, including gender, age, geographical provenance, and educational and professional background.

The procedures for the appointment of User Directors are set out in Appendix to Article 7 (''Appendix''). Under these procedures, if a User Director retires from the Board, the committee may invite an ''Eligible User'', as defined,[21] to nominate a candidate for appointment as a User Director on the Board (a ''Nominating User'').[22] In selecting Nominating Users, the committee will consider those Eligible Users that the committee considers most likely to promote the success of LCH SA, having regard for: (i) The number of each Eligible User's contracts or trades (as the case may be) cleared by any member of LCH Group in the immediately preceding 12 months; (ii) any other contribution made to LCH Group's business by each Eligible User, including without limitation assistance provided to LCH Group in the development of new projects and the introduction to LCH Group of new clearing clients; (iii) the size of each Eligible User's shareholding in LCH Group; and (iv) how recently (if at all) the relevant Eligible User has been represented on any LCH Board, and the desirability of achieving a reasonably fair rotation of appointees among Eligible Users.

In deciding whether to approve a candidate for appointment to the Board (each, an ''Approved Candidate''), the committee will have regard for: (i) The seniority, experience, skill and expertise of each candidate; (ii) the regulatory good standing of each candidate; (iii) the desirability of having deep expertise on a wide range of products, including those which pose the greatest risk challenges for LCH SA from time to time; and (iv) the desirability of having significant experience and expertise in LCH SA's principal markets; and (v) the desirability of diversity on the Board, including gender, age, geographical provenance, and educational and professional background.

From the Approved Candidates, the committee selects a number of ''Proposed Directors'' that is equal to the number of User Directors that are retiring from the Board and presents the Proposed Directors to LSEG for approval. If LSEG does not approve a Proposed Director, the Nominating User may accept LSEG's decision, in which case, the committee may select another Proposed Director from among the Approved Candidates to be put to LSEG for approval, or the Nominating User may propose one or more alternative candidates to be considered and, if approved, be put to LSEG for approval.[23] Upon approval of a Proposed Candidate by LSEG, the committee will recommend the Proposed Director's appointment to the Board.

Article 8, Tenure of Directors, will provide that each director (other than the Executive Directors and User Directors) will have, in principle, a maximum tenure on the Board of three three-year terms. However, the Committee may nominate an Independent Director for such longer period as is necessary to ensure that not all such Independent Directors' appointments terminate at the same time. All User Directors will have a tenure on the Board of one three-year term, unless otherwise agreed by the Board to ensure that not all such User Directors' appointments terminate at the same time. Article 8 further provides that the terms of appointment of each User Director will provide that the User Director must retire from the Board if any of the circumstances set out in sub-paragraphs 2(a) through 2(e) of the Appendix occurs.[24]

[19] The Committee is also directed to consult periodically with the nomination committee of LCH Limited to ensure that there is a coordinated process for the appointment of suitable directors to the Board and the board of directors of LCH Limited.

[20] If a recommended candidate appears to have any relationships that might call into question the candidate's independence, the committee must specify why it believes the candidate is nonetheless independent.

[21] As defined in the Appendix, an ''Eligible User'' is a User Shareholder, *i.e.,* a clearing member that is also a shareholder of LCH Group, that is not connected with an existing director (other than a director that is retiring or removed in accordance with the Appendix) and has not served notice terminating its clearing relationship with any member of LCH Group.

[22] In addition to retiring voluntarily from the Board, a User Director must retire if the User Director: (i) Retires or is removed as a result of the User Shareholder which nominated the User Director ceasing to be an Eligible User; (ii) retires or is removed as a result of their ceasing to be employed by, or for any other reason upon request by, the User Shareholder which nominated the User Director; (iii) retires or is removed following a change of role within the User Shareholder, if such role change would result in the User Director concerned no longer being able to maintain the relevant skill and expertise; or (iv) is disqualified or removed in accordance with the LCH SA's articles of association.

[23] The committee is not required to select the alternative candidate as a Proposed Candidate.

[24] Paragraphs 2(a) through 2(e) of the Appendix provide that a User Director must retire if the User Director: (a) Retires of the User Director's own volition; (b) retires or is removed as a result of the

Continued

Article 9, Membership of the Nomination Committee, will provide that the members of the Nomination Committee will be appointed by the Board and be comprised of four to six directors, including the Chairman, at least two Independent Directors, one User Director and the LSEG Director. The Chairman of the Board, or such other Independent Director as the Independent Directors and LSEG may agree, will be the Chairman of the committee.

Articles 10 and 12 through 16 will establish the Committee's policies with regard to the conduct of meetings. In this regard, these articles provide that: (i) LCH SA's secretary will be the secretary of the Committee (Article 10); (ii) notice of meetings will be provided by the secretary or Committee Chairman in a timely manner, along with an agenda and supporting documents (Article 12); (iii) the Committee will meet at least twice each year and as necessary to fulfill its duties (Article 13); (iv) Committee meetings may be held in person, by telephone, by video conference or any combination thereof, and decisions may be made by email circulation, provided approval is unanimous (Article 14); (v) one Independent Director, one User Director, and the LSEG Director must be in attendance to constitute a quorum of the Committee, authorized to exercise all authorities of the Committee (Article 15); and the secretary will prepare minutes of all Committee meetings, which will be presented to the Committee for approval at its next meeting.

Article 11, Tenure of Nomination Committee Members, will provide that, in the event a member of the Committee ceases to be a director or LCH SA, the member will automatically cease to be a member of the Committee.

Article 17, Reporting and Reviews, will provide that the Committee will furnish to the Board for approval each year a summary of (i) its activities, (ii) the process used to make nominations, (iii) a description of its policy on diversity (including gender), any measurable objectives it has set for implementing the policy and progress on achieving such objectives, and (iv) will either explain if external advice or search consultants have not been used or, if they have been used, identify them and state whether they have a connection with LCH SA.[25] Article 17 will further require the Committee Chairman, or the Chairman's designee, to make available to LCH SA's Chief Compliance Officer (the ''Chief Compliance Officer'') such information relating to the Committee's work as is necessary for the Chief Compliance Officer to draft and submit the annual compliance reports required by the CFTC Rules and other applicable regulations in force from time to time.

Article 18, Amendment, will provide that the ToR may be amended with approval of the Board, subject to LSEG's consent.

Article 19, Confidentiality and Conflicts of Interest, will set out the requirements with respect to confidentiality and conflicts of interest and provides that all confidential matters considered by the committee and any confidential information disclosed to members of the committee in connection with their position as a member of the committee must remain confidential, notwithstanding the company to which that information relates, nor whether the member is a director of that company or not, except as required to be disclosed by law or regulation. Conflicts of interest relating to committee members will be governed by the relevant articles in LCH SA's Articles of Association.

Article 20, Other, will provide that (i) the Committee will have sufficient resources to carry out its duties, (ii) every member of the Committee will receive a copy of the ToR, and (iii) every member of the Committee will receive appropriate and timely training, including access to external consultancy support, when required.

Terms of Reference of the Risk Committee

No substantive changes are proposed to be made to the ToR of the Risk Committee. The ToR will be amended primarily to reflect the changes in the LCH Group governing arrangements. For example, (i) Article 1, Composition, will be revised to reference the criteria for independence set out in LCH SA's Nomination Committee ToR rather than in LCH Group's Nomination Committee ToR, and (ii) Article 16, Confidentiality and Conflicts of Interest, will be revised to remove reference to any rights LSEG may have in the Relationship Agreement and refer, instead, to rights LSEG or its representatives have under this ToR.

Article 1 will also been amended to remove as unnecessary the provision that authorized LSEG to appoint the Vice Chairman of the committee only for so long as LSEG is entitled to exercise or control the exercise of at least 40 percent of the votes able to be cast on all or substantially all matters at general meetings of LCH SA. Provided such person has the skills and experience commensurate with such a role, LSEG will be entitled to appoint the Vice Chairman of the committee without restriction.[26]

Article 20, Other, will be amended to provide that LSEG must consent to any amendments to: (i) Paragraph 1.2.6, recognizing the authority of LSEG's Head of Financial Risk (or delegate) to attend meeting of the Risk Committee; (ii) paragraph 1.4, authorizing LSEG to appoint the Vice Chairman of the committee; (iii) paragraph 16.1, relating to confidentiality and conflicts of interest; and (iv) paragraph 20.6, recognizing the provisions of the ToR requiring LSEG's consent. Further, no provisions of ToR may be amended without the approval of the Board.

Terms of Reference of the Audit Committee

No substantive changes are proposed to be made to the ToR of the Audit Committee. However, Article 2, Structure and Membership, will be revised to reference the criteria for independence set out in LCH SA's Nomination Committee ToR rather than in LCH Group's Nomination Committee ToR and, further, will be amended to provide that one member of the Audit Committee will be a director recommended or approved by LSEG.[27]

Article 3, Authority and Responsibilities, will be amended to remove the requirement that LCH SA's Audit Committee coordinate with the Audit Committee of LCH Group. However, Article will be amended to require the committee to coordinate with the Technology, Security and Resilience Committee.[28] In addition,

User Shareholder that nominated the User Director ceasing to be an Eligible User; (c) retires or is removed as a result of the User Director ceasing to be employed by, or for any other reason upon request by, the User Shareholder that nominated the User Director; (d) retires or is removed following a change of role within the User Shareholder, if such role change would result in the User Director concerned no longer being able to maintain the relevant skill and expertise; or (e) is disqualified or removed in accordance with LCH SA's Articles of Association.

[25] Following approval of the Committee's summary, it will be included as a section in LCH SA's annual report.

[26] Article 17 of the ToR, Harmonization with LCH Limited, will be amended to remove references to LCH LLC. LCH LLC is registered with the CFTC as a DCO, although its registration is currently dormant.

[27] Article 2 will also be amended to remove as unnecessary references to the Relationship Agreement and the paragraph providing that LSEG will have the authority to appoint a member of the committee only for so long as LSEG is entitled to exercise or control the exercise of at least 20 percent of the votes able to be cast on all or substantially all matters at general meetings of LCH Group.

[28] The Committee's obligation to coordinate with the LCH SA Risk Committee is unchanged.

Article 3 will be amended to recognize that LCH SA has more than one External Auditor, and provide that, in making recommendations to the Board concerning the appointment, evaluation and termination of the engagement of the External Auditors for LCH SA, the Committee will take into account the auditor appointed by LSEG in respect of the wider LSEG Group. Article 3 will also be amended to provide that the Committee will review the annual audit plan prepared by LCH SA's Internal Audit department after approval by the LCH SA's CEO and ahead of any submission of the plan to LCH SA's regulator, if requested by the regulator. Finally, Article 3 will be amended to remove the requirement that the Committee respond to any requests from the LCH Group Audit Committee (which is being disbanded) to vary LCH SA's internal audit program of work.

Article 5, Reporting, will be amended to confirm that Committee secretary will present all minutes of the proceedings and resolutions of all Committee meetings to the Committee for approval at the next following meeting.

Current Article 8, Annual Evaluation and Terms of Reference Review, which provides that the Committee will arrange for periodic reviews of its own performance and, at least annually, arrange for independent internal review of its constitution and these Terms of Reference, will be removed. This review is conducted, instead, by the Board and executive management.

Article 8, Amendments, will be added, which will specify those provisions of the ToR that may be approved solely by the Board and those provisions that will also require LSEG's consent.

Terms of Reference of the Remuneration Committee

The ToR of the Remuneration Committee will be amended to reflect some minor changes in the remuneration process. For example, Article 1, Duties and Powers of the Committee will be revised to provide that the remuneration policies will apply to ''Specified Executives'' rather than ''Executive Management''. This is a technical change to confirm that the remuneration policies will apply only to those executives identified in the ToR or otherwise specified by the Board and will not apply to other LCH SA executives who otherwise might be deemed to fall within the category of ''Executive Management'' for other purposes. As defined, ''Specified Executives'' means, with respect to LCH SA, the Executive Directors, the CEO, the Chief Risk Officer, the Chief Compliance Officer, and any other personnel designated by the Board from time to time.[29] Further, the process by which the remuneration of the CEO or any Specified Executive may be submitted for approval by the Board and, subsequently, the LSEG remuneration committee will be simplified by removing the requirement that the Committee consult with the Chief Executive Officer of LSEG when making any change in the remuneration (including salary, bonus and long term incentives) of the CEO or any Specified Executive. It was determined that requiring the Committee to consult with the Chief Executive Officer of LSEG at the start of the process with regard to any changes in the remuneration of the LCH SA CEO or any Specified Executive is unnecessary, since the approval of the LSEG Remuneration Committee is required as a final step.[30] Article 1 will also be amended to require the Committee to review annually the ongoing appropriateness of any individual remuneration and to review for approval by the Board the design of all incentive plans and performance related pay schemes, including performance targets to be used, that are designed by and received from the LSEG remuneration committee.

Article 2, Composition of the Committee, will be revised to remove as unnecessary the provision that LSEG is entitled to appoint a representative to the committee only for so long LSEG is entitled to exercise or control the exercise of at least five percent of the votes able to be cast on all or substantially all matters at general meetings in Group.[31] LSEG will be entitled to appoint a representative to the committee at all times. Article 2 will also authorize the LCH Group CEO to attend committee meetings as an observer.

Article 10. Amendment, will be amended to confirm those paragraphs of the ToR that may only be amended with the approval of the Board and the consent of LSEG.

Article 12, Confidentiality and Conflicts of Interest, will be revised to remove reference to any rights LSEG may have in the Relationship Agreement and refer, instead, to rights LSEG or its representatives have under this ToR.

Terms of Reference of the Technology, Security and Resilience Committee

Unrelated to the changes in its governance arrangements described above, LCH SA has also established ToR for a Technology, Security and Resilience Committee of the Board.

Article 1, Purpose, will provide that the purpose of the Committee is to ''represent the interests of the Board in the sound management of technology, security and operational resilience, including cyber security, to ensure that technology security and operational resilience strategies, investments and outcomes support the mission, values, and strategic goals'' of LCH SA, and determine whether management has put in place adequate strategies that provide reasonable assurance that LCH SA ''operates within its risk appetite and complies with regulatory requirements.''

To this end, the Committee will assist the Board in fulfilling its responsibilities relating to, *inter alia:* (i) Review of LCH SA's Operations and Technology Strategy; (ii) review of significant investments in support of this strategy including application and infrastructure architecture; (iii) review of the frameworks, policies and strategies that set the internal control environment in relation to technology, security and operational resilience; (iv) review of the Operational Risk Management Framework; (v) review of LCH SA's Strategy for Cyber Security and Information Security and for delivery of supporting programs; (vi) review of the integration of Digital and Physical Security and their alignment with Business Continuity Plans; and (vii) providing regulatory attestations or declarations as may be required from time to time in relation to technology, security and operational resilience.

Article 2, Structure and Membership, will provide that the Committee will be comprised of at least four directors of the Board. At least two members of the Committee will be Independent Directors, one of whom will be appointed by the Chairman of the Committee. Both Independent Directors must satisfy the criteria for independence set out in the ToR of the Nomination Committee. One member of the Committee must also be a member

[29] ''Specified Executives'' also include any personnel with an annual remuneration package of more than €1,000,000 or equivalent, and the Chairman of the Board.

[30] With regard to the remuneration of directors, Article I will be amended to provide that the committee will consult from time to time with the remuneration committee of LSEG and the remuneration committee of LCH Limited to ensure that there is a coordinated approach to the remuneration of directors on the Board and the board of directors of LCH Limited.

[31] Article 14, Other, will also be amended to remove the general provision that the rights of LSEG set out in the ToR will cease automatically if LSEG ceases to be entitled to exercise or control the exercise of at least five percent of the votes able to be cast on all or substantially all matters at general meetings of LCH Group.

of the Audit Committee.[32] All Committee members will be appointed by the Board in consultation with the Committee Chairman.

Article 2 will further provide that he Committee will meet as frequently as it determines necessary but must meet no less frequently than three times a year. Two members of the committee will constitute a quorum, provided at least one member is an independent director. Remuneration of the Committee members will be determined by the Board, and no member of the Committee may receive any consulting, performance, advisory or other compensatory fee from LCH SA other than fees paid in member's capacity as a member of the Board or as a member of a Committee of the Board.

Article 3, Reports to the Committee, will provide that the Committee will receive and review periodic management information for relevant operations and technology metrics and will align its meeting schedule with the requirements of the Board.

Article 4, Authority and Responsibilities, will describe the specific functions of the Committee, including: (i) Reviewing LCH SA's operations and technology strategy and policies including application and infrastructure architecture; (ii) reviewing and, as appropriate, making recommendations to the Board regarding significant technology investments in support of LCH SA's technology strategy; (iii) reviewing and, as appropriate, making recommendations to the Board regarding the resources and delivery of LCH SA's technology programs; (iv) reviewing any information technology resilience, cyber and information security programs, tracking progress in relation to such programs and providing reports to the Board as appropriate; (vi) reviewing any significant operations and technology risk exposures of LCH SA, including any detailed operational risk assessments with significant information technology elements and information security and cyber security risks, together with the steps management has taken to monitor and control such exposures; (vii) reviewing LCH SA's integrated security and resilience, including review of any new or novel approaches to information technology including security and resilience; (viii) reviewing reports from management regarding LCH SA's Business Continuity Management planning; (ix) receiving reports, as appropriate, from the Audit Committee regarding the results of reviews and assessments of LCH SA's operations and technology functions; and (x) reviewing reports, as appropriate, on operations and agreed metrics in conjunction with the Audit Committee.

Article 5, Provisions for Access, will confirm that the Committee (i) will have full and unrestricted access to management and employees of LCH SA and other members of the LCH Group, (ii) may obtain independent professional advice and the assistance of relevant experts outside of LCH SA, and (iii) will have full and unrestricted access to any systems, records, facilities or other data from LCH SA or other member of LCH Group that it requires to carry out its functions.

Article 6, Reporting, will provide that the Committee Chairman will report the Committee's discussions, decisions and recommendations to the Board, which will decide on an appropriate policy response.[33] Further, the Committee Chairman, or the Chairman's designee, will make available to LCH SA's Chief Compliance Officer such information relating to the Committee's work as is necessary for the Chief Compliance Officer to draft and submit the annual compliance reports required by applicable regulations in force from time to time.

Article 7, Confidentiality and Conflicts of Interest, will set out the requirements with respect to confidentiality and conflicts of interest and provides that all confidential matters considered by the Committee and any confidential information disclosed to members of the Committee in connection with their position as a member of the Committee must remain confidential, notwithstanding the company to which that information relates, nor whether the member is a director of that company or not, except as required to Committee members will be governed by the relevant articles in LCH SA's Articles of Association.

2. Statutory Basis

LCH SA has determined that Proposed Rule Change is consistent with the requirements of Section 17A of the Act[34] and regulations thereunder applicable to it. In particular, Section 17A(b)(3)(C) of the Act provides that the rules of a clearing agency must assure fair representation of its members and participants in the selection of its directors and the administration of its affairs.

As noted above, the Proposed Rule Change will not lead to any change in the proportion of independent directors or the number of directors representing members and participants. Therefore, the Board and the committees of the Board will continue to assure fair representation of its members and participants in the selection of its directors and the administration of its affairs as provided in section 17A(b)(3)(C) of the Act.[35]

Further, Section 17A(b)(3)(F) of the Act[36] provides that the rules of a clearing agency must be designed to assure the safeguarding of securities and funds which are in the custody or control of the clearing agency. In this regard, the Proposed Rule Change will make no substantive changes to the risk management policies of LCH SA or, except as explained immediately below, to the obligations of the Board with respect to risk management.

The Proposed Rule Change will amend Article 12 of the Board of Directors ToR to clarify that the Board must approve at least annually the LCH Group Risk Governance Framework and LCH SA's various policies, including LCH SA's: (i) Financial Resource Adequacy Policy; (ii) Default Management Policy; (iii) Collateral Risk Policy; (iv) Investment Risk Policy; (v) Liquidity Risk Policy; (vi) Settlement, Payment & Custody Risk Policy; (vii) Counterparty Credit Risk Policy; (viii) Contract and Market Acceptability Policy; (ix) Model Governance, Validation & Review Policy; (x) Operational Risk Policy; (xi) and Procyclicality Policy and any significant changes to those policies upon recommendations from the Risk Committee.

By making no substantive changes to the risk management policies of LCH SA or to the obligations of the Board with respect to risk management and by clarifying the obligation of LCH SA's Board to approve the above policies annually, which policies collectively assure the safeguarding of securities and funds which are in the custody or control of LCH SA, the Proposed Rule Change is consistent with the requirements of Section 17A(b)(3)(F) of the Act.

Commission Rule 17Ad–22(e)(2) requires each registered clearing agency to ''establish, implement, maintain and enforce written policies and procedures reasonably designed to provide for

[32] The Committee as a whole should have a breadth of experience to enable alignment with financial risk management, regulatory requirements and audit. Ideally, members of the Committee will also have significant, recent and relevant experience of the operations of LCH SA and its dependence on technology.

[33] The Committee will have no executive powers with respect to its findings and recommendations.

[34] *Id.*

[35] 15 U.S.C. 78q–1(b)(3)(C).

[36] 15 U.S.C. 78q–1(b)(3)(F).

governance arrangements that: (i) Are clear and transparent; (ii) support the public interest requirements in Section 17A of the Act applicable to clearing agencies, and the objectives of owners and participants; (iii) specify clear and direct lines of responsibility; and (vi) consider the interests of participants' customers . . . and other relevant stakeholders of the covered clearing agency.[37]

As discussed above, the Proposed Rule Change is being adopted in significant part to conform LCH SA's Governance Documents to actions taken by LCH Group to simplify its governing arrangements and to eliminate provisions in LCH Group's governance documents that are unnecessary and outdated. Importantly, LCH Group and LSEG have decided to terminate the Relationship Agreement between them and remove duplication in board decision-making between LCH Group and the CCP Boards by making the LCH Group Board an internal only board and disbanding all LCH Group committees.

By simplifying its governance arrangements and eliminating provisions in LCH Group's governance documents that are unnecessary and outdated; by vesting in LCH SA's CEO responsibility for appointing LCH SA's management team; and by confirming that the Proposed Rule Change will not lead to any change in the proportion of independent directors or the number of directors representing members and participants, the Proposed Rule Change enhances LCH SA's governance arrangements and assures that they (i) remain clear and transparent (ii) continue to fulfill the public interest requirements in Section 17A of the Act applicable to clearing agencies by assuring fair representation of its members and participants in the selection of its directors and the administration of its affairs, (iii) support the objectives of members and participants, (iv) specify clear and direct lines of responsibility; and (v) consider the interests of participants' customers . . . and other relevant stakeholders of the covered clearing agency, within the meaning of SEC Rule 17Ad–22(e)(2).[38]

B. Clearing Agency's Statement on Burden on Competition

LCH SA does not believe the Proposed Rule Change would have any impact, or impose any burden, on competition. The Proposed Rule Change does not address any competitive issue or have any impact on the competition among central counterparties. LCH SA operates an open access model, and the Proposed Rule Change will have no effect on this model.

C. Clearing Agency's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

Written comments relating to the Proposed Rule Change have not been solicited or received. LCH SA will notify the Commission of any written comments received by LCH SA.

III. Date of Effectiveness of the Proposed Rule Change

Within 45 days of the date of publication of this notice in the **Federal Register** or within such longer period up to 90 days (i) as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will: (A) By order approve or disapprove such proposed rule change, or (B) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change, security-based swap submission, or advance notice is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number LCH SA–2020–003 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549.

All submissions should refer to File Number SR–LCH SA–2020–003. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change, security-based swap submission, or advance notice that are filed with the Commission, and all written communications relating to the proposed rule change, security-based swap submission, or advance notice between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of LCH SA and on LCH SA's website at: *https://www.lch.com/resources/rules-and-regulations/proposed-rule-changes-0.* All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–LCH SA–2020–003 and should be submitted on or before August 31, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[39]

J. Matthew DeLesDernier,

Assistant Secretary.

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BILLING CODE 8011–01–P

[37] 17 CFR 240.17Ad–22(e)(2).

[38] 17 CFR 240.17Ad–22(e)(2).

[39] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89468; File No. SR–NYSECHX–2020–24]

Self-Regulatory Organizations; NYSE Chicago, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Governing Liability of Directors and of the Exchange

August 4, 2020.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the ''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on July 30, 2020, the NYSE Chicago, Inc. (''NYSE Chicago'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to rules governing liability of directors and of the Exchange, including the limits on liability for specified circumstances, that would harmonize such rules with those of the Exchange's affiliates NYSE Arca, Inc. (''NYSE Arca'') and NYSE National, Inc. (''NYSE National''). The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to change the rules governing liability of directors and of the Exchange, including the limits on liability for specified circumstances. Specifically, the Exchange proposes to replace Article 3, Rule 19 with new Rules 13.1 (Liability of Directors), 13.2 (Liability of Exchange), 13.3 (Legal Proceedings Against Exchange Directors, Officers, Employees or Agents) and 13.4 (Exchange's Costs of Defending Legal Proceedings). Proposed Rules 13.1 through 13.4 are based on the rules set forth in NYSE Arca Rule 14 and NYSE National Rule 13, with non-substantive differences to use the term ''Participant'' [4] rather than the terms ''ETP Holders,'' ''OTP Holders'' or ''OTP Firms,'' which terms are not used on the Exchange.[5] The Exchange also proposes to delete Article 3, Rule 19, which is the Exchange's current rule related to liability of the Exchange.

In July 2018, the Exchange and its direct parent company were acquired by NYSE Group, Inc. (''Transaction'').[6] As a result of the Transaction, the Exchange became part of a corporate family including five separate registered national securities exchanges.[7] Following the Transaction, the Exchange continued to operate as a separate self-regulatory organization and with rules, membership rosters and listings distinct from the rules, membership rosters and listings of the other NYSE Exchanges.

Following the Transaction, the Exchange established a rule numbering framework in connection with the migration of the Exchange to the NYSE Pillar platform [8] and has aligned its trading rules with the rules of its affiliated NYSE Exchanges in order to provide consistent standards while operating on the Pillar platform.[9] As part of this effort, the proposal set forth below further harmonizes the Exchange's rules governing liability of directors and of the Exchange, including liability caps and related reimbursement requirements, with those of NYSE Arca and NYSE National in order to provide uniform standards and requirements.

Currently, Article 3, Rule 19 (Limitation of Liability), generally states that neither the Exchange, nor its affiliates, nor any of the directors, officers, committee members, officials, employees, contractors or agents of the Exchange or its affiliates would be liable to Participants or persons associated with Participants for any loss arising out of the use of the facilities, systems, services or equipment provided by the Exchange or for any loss associated with an interruption in, or in a failure or unavailability of any such facilities, systems, services or equipment, whether or not the loss resulted from negligence or other unintentional errors omissions or from any other cause within or without the Exchange's control.[10] The rule also states that the Exchange makes no warranty as to results that might be obtained by persons using the Exchange's facilities or services or any data transmitted by or on behalf of the Exchange.[11] Further, the rule bars a Participant from instituting a legal proceeding against the Exchange, its affiliates or their directors, officer, committee members, officials, employees, contractors or agents for actions taken or omitted in connection with the official business of the Exchange, except to the extent that such actions or omissions constitute violations of the Federal securities laws for which a private right of action exists.[12] Finally, the rule provides that any Participant who fails to prevail in a lawsuit or administrative adjudicative proceeding against the Exchange or any of its officers, directors, committee members, employees or agents, shall pay to the Exchange all reasonable expenses, including attorneys' fees, incurred by the Exchange in the defense of such proceeding if such expenses exceed $50,000.00.[13]

The Exchange now proposes to replace Article 3, Rule 19 with Rules 13.1 through 13.4 to add rules related to liability of directors and of the Exchange, including the liability caps and reimbursement requirements that are based on the rules of NYSE Arca and NYSE National.[14]

Proposed Rule 13.1 would provide that any provision of the Certificate of Incorporation, Bylaws or the Rules of the Exchange that provides or purports to provide that the members of the Board of Directors shall not be liable to the Exchange or its Participants for monetary damages for breach of fiduciary duty as a Manager shall not be applied in any instance in which such liability arises directly or indirectly as a result of a violation of federal securities laws.[15] The Exchange does not currently

[4] The term ''Participant'' is defined in Article 1, Rule 1(s) to mean, among other things, any Participant Firm that holds a valid Trading Permit and that a Participant shall be considered a ''member'' of the Exchange for purposes of the Act. If a Participant is not a natural person, the Participant may also be referred to as a Participant Firm, but unless the context requires otherwise, the term Participant shall refer to an individual Participant and/or a Participant Firm.

[5] *See* NYSE Arca Rules 14.1 through 14.4 and NYSE National Rules 13.1 through 13.4.

[6] *See* Securities Exchange Act Release No. 83635 (July 13, 2018), 83 FR 34182 (July 19, 2018) (SR–CHX–2018–004); *see also* Securities Exchange Act Release No. 83303 (May 22, 2018), 83 FR 24517 (May 29, 2018) (SR–CHX–2018–004).

[7] In addition to NYSE Arca and NYSE National, the Exchange has two other registered national securities exchange affiliates: New York Stock Exchange LLC (''NYSE'') and NYSE American LLC (''NYSE American'') (collectively, the Exchange, NYSE, NYSE Arca, NYSE National, and NYSE American, the ''NYSE Exchanges'').

[8] *See* Securities Exchange Act Release No. 85297 (March 12, 2019), 84 FR 9854 (March 18, 2019) (SR–NYSECHX–2019–03) (Notice of filing and immediate effectiveness of proposed rule change to establish a rule numbering framework).

[9] *See* Securities Exchange Act Release No. 87264 (October 9, 2019), 84 FR 55345 (October 16, 2019) (SR–NYSECHX–2019–08) (Approval Order of proposal to add rules to support the transition of trading to the Pillar Trading Platform).

[10] *See* Article 3, Rule 19(a).

[11] *See* Article 3, Rule 19(b).

[12] *See* Article 3, Rule 19(c).

[13] *See* Article 3, Rule 19(e).

[14] *See* note 5, *supra.*

[15] Proposed Rule 13.1 is substantively identical to NYSE Arca Rule 14.1 and NYSE National 13.1.

have a rule that is analogous to proposed Rule 13.1.

Proposed Rule 13.2(a) [16] would provide that except as otherwise expressly provided in the Exchange's rules, neither the Exchange nor its Directors, officers, committee members, employees or agents shall be liable to the Participants of the Exchange, or successors, representatives or customers thereof, or to persons associated therewith for any loss, expense, damages or claims that arise out of the use or enjoyment of the facilities or services afforded by the Exchange, any interruption in or failure or unavailability of any such facilities or services, or any action taken or omitted to be taken in respect to the business of the Exchange except to the extent such loss, expense, damages or claims are attributable to the willful misconduct, gross negligence, bad faith or fraudulent or criminal acts of the Exchange or its officers, employees or agents acting within the scope of their authority. The limitation of liability set forth in proposed Rule 13.2(a) would not apply to violations of federal securities laws.

Proposed Rule 13.2(a) would further provide that subject to certain exceptions, the Exchange would have no liability to any person for any loss, expense, damages or claims that result from any error, omission or delay in calculating or disseminating any current or closing index value, or any reports of transactions in or quotations for securities traded on the Exchange. The first two paragraphs of proposed Rule 13.2(a) replace Article 3, Rule 19(a) and are based on the first two paragraphs of NYSE Arca Rule 14.2(a) and NYSE National Rule 13.2(a) without any substantive differences. Additionally, proposed Rule 13.2(a) would provide that the Exchange makes no warranty as to results that might be obtained by any person or entity from the use of any data transmitted to disseminated by or on behalf of the Exchange or any reporting authority designated by the Exchange. This paragraph of proposed Rule 13.2(a) replaces Article 3, Rule 19(b), and is based on the third paragraph of NYSE Arca Rule 14.2(a) and NYSE National Rule 13.2(a) without any substantive differences.

Proposed Rule 13.2(b) [17] would provide that the Exchange would compensate Participants for losses whenever custody of an unexecuted order is transmitted by a Participant to or through the Exchange's order routing systems, electronic book or automatic executions systems or to any other automated facility of the Exchange. Under proposed Rule 13.2(b)(1), the Exchange would cap its liability to all Participants at the greater of $500,000 or the amount recovered under any applicable insurance policy in a single calendar month. The Exchange does not currently have a rule that is analogous to proposed Rule 13.2(b).

Proposed Rule 13.2(c) [18] would provide that that to the extent that all claims arising out of the use or enjoyment of the facilities afforded by the Exchange cannot be fully satisfied because in the aggregate they exceed the applicable maximum amount of liability provided for, then the Exchange would allocate the maximum amount among all such claims arising during a single calendar month based on the proportion that each such claim bears to the sum of all such claims. The Exchange does not currently have a rule that is analogous to proposed Rule 13.2(c).

Proposed Rule 13.2(d) [19] would provide that in order for a Participant to be eligible to receive compensation, claims must be made in writing and must be submitted no later than 12 p.m. Eastern Time on the next business day following the day on which the use or enjoyment of the Exchange's facilities gave rise to such claims. The Exchange does not currently have a rule that is analogous to proposed Rule 13.2(d).

Proposed Rule 13.3 would establish requirements relating to legal proceedings against directors, officers, employees, agents, or other officials of the Exchange. This proposed rule replaces Article 3, Rule 19(c), and is based on NYSE Arca Rule 14.3 and NYSE National Rule 13.3 without any substantive differences.

Proposed Rule 13.4 would establish the circumstances regarding who is responsible for the Exchange's costs in defending a legal proceeding brought against the Exchange. This proposed rule replaces Article 3, Rule 19(e), and is based on NYSE Arca Rule 14.3 and NYSE National Rule 13.3 without any substantive differences.

2. Statutory Basis

The proposed rule change is consistent with Section 6(b) of the Securities Exchange Act of 1934 (the ''Act''),[20] in general, and furthers the objectives of Section 6(b)(5),[21] in particular, because it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to, and perfect the mechanism of, a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that proposed Rule 13 would remove impediments to and perfect the mechanism of a free and open market and a national market system by harmonizing the Exchange's rules governing liability of directors, liability of exchange, legal proceedings against Exchange directors, officers, employees, or agents, and Exchange's costs of defending legal proceedings with the approved rules of its affiliated exchanges, NYSE Arca and NYSE National. The Exchange believes that the proposed rules would further promote just and equitable principles of trade by providing for consistent methodology relating to liability for trading on affiliated exchanges that use the same trading platform. The proposed rule change would therefore promote consistency among the Exchange and its affiliates and make its rules easier to navigate for the public, the Commission, and Participants.

The proposed rule change is also intended to align the liability caps and compensation claims requirements with the caps and requirements currently provided by the Exchange's affiliates, NYSE Arca and NYSE National, and would therefore provide consistent rules across those exchanges.[22] Consistent rules, in turn, would simplify the regulatory requirements for Participants of the Exchange that are also members on those affiliated exchanges. The Exchange believes that the proposed rule change would provide greater harmonization among similar rules of NYSE Arca and NYSE National, resulting in greater uniformity and more efficient regulatory compliance. As such, the proposed rule change would foster cooperation and coordination with persons engaged in facilitating transactions in securities and would remove impediments to and perfect the mechanism of a free and open market and a national market system.

Lastly, the Exchange notes that the proposal to adopt provisions governing liability of directors, liability of exchange, legal proceedings against

[16] Proposed Rule 13.2(a) is substantively identical to NYSE Arca Rule 14.2(a) and NYSE National Rule 13.2(a).

[17] Proposed Rule 13.2(b) is substantively identical to NYSE Arca Rule 14.2(b) and NYSE National Rule 13.2(b).

[18] Proposed Rule 13.2(c) is substantively identical to NYSE Arca Rule 14.2(c) and NYSE National Rule 13.2(c).

[19] Proposed Rule 13.2(d) is substantively identical to NYSE Arca Rule 14.2(d) and NYSE National Rule 13.2(d).

[20] 15 U.S.C. 78f(b).

[21] 15 U.S.C. 78f(b)(5).

[22] *See* note 5, *supra.*

Exchange directors, officers, employees, or agents, and Exchange's costs of defending legal proceedings are similar to those approved by the Commission for a number of self-regulatory organizations. More specifically, the Commission recently approved the Members Exchange Form 1 application which includes Rule 11.14 (Limitation of Liability),[23] the Long-Term Stock Exchange Form 1 application which includes Rule 11.260 (Limitation of Liability),[24] and the Investors Exchange Form 1 application which includes Rule 11.260 (Limitation of Liability).[25]

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act because all Participants would be subject to the same limits on liability, liability caps and reimbursement requirements. The proposed rule change is designed to provide greater harmonization among similar rules across the Exchange's affiliates, NYSE Arca and NYSE National, resulting in more efficient regulatory compliance for common members.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act[26] and Rule 19b–4(f)(6) thereunder.[27] Because the proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b–4(f)(6)(iii) thereunder.

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings under Section 19(b)(2)(B)[28] of the Act to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSECHX–2020–24 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSECHX–2020–24. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSECHX–2020–24, and should be submitted on or before August 31, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[29]

J. Matthew DeLesDernier,

Assistant Secretary.

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BILLING CODE 8011–01–P

[23] *See* Securities Exchange Act Release No. 88806 (May 4, 2020), 85 FR 27451 (May 8, 2020) (In the Matter of the Application of MEMX LLC for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission).

[24] *See* Securities Exchange Act Release No. 85828 (May 10, 2019), 84 FR 21841 (May 15, 2019) (In the Matter of the Application of Long-Term Stock Exchange, Inc.; for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission).

[25] *See* Securities Exchange Act Release No. 78101 (June 17, 2016), 81 FR 41142 (June 23, 2016) (In the Matter of the Application of: Investors' Exchange, LLC for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission).

[26] 15 U.S.C. 78s(b)(3)(A)(iii).

[27] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[28] 15 U.S.C. 78s(b)(2)(B).

[29] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89469; File No. SR–CBOE–2020–069]

Self-Regulatory Organizations; Cboe Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Options Regulatory Fee

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 21, 2020, Cboe Exchange, Inc. (the ''Exchange'' or ''Cboe Options'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe Exchange, Inc. (the ''Exchange'' or ''Cboe Options'') proposes to amend its Fees Schedule relating to the Options Regulatory Fee. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's website (*http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx*), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to reduce the Options Regulatory Fee (''ORF'') from $0.0045 per contract to $0.0023 per contract, effective August 3, 2020, in order to help ensure that revenue collected from the ORF, in combination with other regulatory fees and fines, does not exceed the Exchange's total regulatory costs.

The ORF is assessed by Cboe Options to each Trading Permit Holder (''TPH'') for options transactions cleared by the TPH that are cleared by the Options Clearing Corporation (''OCC'') in the customer range, regardless of the exchange on which the transaction occurs.[3] In other words, the Exchange imposes the ORF on all customer-range transactions cleared by a TPH, even if the transactions do not take place on the Exchange. The ORF is collected by OCC on behalf of the Exchange from the Clearing Trading Permit Holder (''CTPH'') or non-CTPH that ultimately clears the transaction. With respect to linkage transactions, Cboe Options reimburses its routing broker providing Routing Services pursuant to Cboe Options Rule 5.36 for options regulatory fees it incurs in connection with the Routing Services it provides.

Revenue generated from ORF, when combined with all of the Exchange's other regulatory fees and fines, is designed to recover a material portion of the regulatory costs to the Exchange of the supervision and regulation of TPH customer options business including performing routine surveillances, investigations, examinations, financial monitoring, and policy, rulemaking, interpretive, and enforcement activities. Regulatory costs include direct regulatory expenses and certain indirect expenses for work allocated in support of the regulatory function. The direct expenses include in-house and third-party service provider costs to support the day to day regulatory work such as surveillances, investigations and examinations. The indirect expenses include support from such areas as human resources, legal, information technology, facilities and accounting. These indirect expenses are estimated to be approximately 26% of Cboe Options' total regulatory costs for 2020. Thus, direct expenses are estimated to be approximately 74% of total regulatory costs for 2020. In addition, it is Cboe Options' practice that revenue generated from ORF not exceed more than 75% of total annual regulatory costs.

The Exchange monitors its regulatory costs and revenues at a minimum on a semi-annual basis. If the Exchange determines regulatory revenues exceed or are insufficient to cover a material portion of its regulatory costs in a given year, the Exchange will adjust the ORF by submitting a fee change filing to the Commission. The Exchange also notifies TPHs of adjustments to the ORF via regulatory circular and/or Exchange Notice.[4] Based on the Exchange's most recent semi-annual review, the Exchange is proposing to reduce the amount of ORF that will be collected by the Exchange from $0.0045 per contract side to $0.0023 per contract side. The proposed decrease is based on the Exchange's estimated projections for its regulatory costs, which have decreased, balanced with recent options volumes, which has significantly increased. For example, total options contract volume in June 2020 was 82.2% higher than the total options contract volume in June 2019.[5] In fact, June 2020 was the highest options volume month in the history of U.S. equity options industry.[6] In particular, customer options volume across the industry has also significantly increased year to date. For example, total customer options contract volume in April 2020 was 50.27% higher than total customer volume in April 2019 and total customer options contract volume in May 2020, was 29.10% higher than total customer volume in May 2019. These expectations are estimated, preliminary and may change. There can be no assurance that the Exchange's final costs for 2020 will not differ materially from these expectations and prior practice, nor can the Exchange predict with certainty whether options volume will remain at the current level going forward. The Exchange notes however, that when combined with the Exchange's other non-ORF regulatory fees and fines, the revenue being generated by ORF using the current rate results in revenue that is running in excess of the Exchange's estimated regulatory costs for the year.[7] Particularly, as noted above, the options market has seen a substantial increase in volume over the first half of the year, due in large part to the extreme volatility in the marketplace as a result of the COVID–19 pandemic. This unprecedented spike in volatility resulted in significantly higher volume than was originally projected by the Exchange (thereby resulting in substantially higher ORF revenue than projected). Moreover, in addition to projected reductions in regulatory expenses, the Exchange experienced further unanticipated reductions in costs, in connection with COVID–19 (*e.g.,* reduction in travel expenses).[8] The Exchange therefore proposes to decrease the ORF in order to ensure it does not

[3] The Exchange notes ORF also applies to customer-range transactions executed during Global Trading Hours.

[4] The Exchange endeavors to provide TPHs with such notice at least 30 calendar days prior to the effective date of the change. The Exchange notified TPHs of the proposed rate change for August 3, 2020 on July 1, 2020. *See* Cboe Options Regulatory Circular RG20–042 ''Options Regulatory Fee Decrease and Discontinuation of Regulatory Circular'' and Exchange Notice, C2020070100 ''Cboe Options Exchanges Regulatory Fee Update Effective August 3, 2020.''

[5] *See https://www.theocc.com/Newsroom/Press-Releases/2020/07-01-OCC-June-2020-Total-Volume-Up-Nearly-81-Perc.*

[6] *Id.* The previous record for highest U.S. equity options volume was March 2020. For further context, the Exchange notes that The Options Clearing Corporation total volume for March 2020 was up 62.8% as compared to March 2019.

[7] Consistent with Rule 2.2 (Regulatory Revenue), the Exchange notes that notwithstanding the excess ORF revenue collected to date, it has not used such revenue for nonregulatory purposes.

[8] The Exchange notes that in connection with proposed ORF rate changes, it provides the Commission confidential details regarding the Exchange's projected regulatory revenue, including projected revenue from ORF, along with a breakout of its projected regulatory expenses, including both direct and indirect allocations.

exceed its regulatory costs for the year. Particularly, the Exchange believes that by decreasing the ORF, as amended, when combined with all of the Exchange's other regulatory fees and fines, would allow the Exchange to continue covering a material portion of its regulatory costs, while lessening the potential for generating excess revenue that may otherwise occur using the current rate.[9]

The Exchange will continue to monitor the amount of revenue collected from the ORF to ensure that it, in combination with its other regulatory fees and fines, does not exceed the Exchange's total regulatory costs.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the ''Act'') and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.[10] Specifically, the Exchange believes the proposed rule change is consistent with Section 6(b)(4) of the Act,[11] which provides that Exchange rules may provide for the equitable allocation of reasonable dues, fees, and other charges among its TPHs and other persons using its facilities. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[12] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange believes the proposed fee change is reasonable because customer transactions will be subject to a lower ORF fee than the current rate. Moreover, the proposed reduction is necessary in order for the Exchange to not collect revenue in excess of its anticipated regulatory costs, in combination with other regulatory fees and fines, which is consistent with the Exchange's practices. The Exchange had designed the ORF to generate revenues that would be less than or equal to 75% of the Exchange's regulatory costs, which is consistent with the view of the Commission that regulatory fees be used for regulatory purposes and not to support the Exchange's business operations. As discussed above, however, after its semi-annual review of its regulatory costs and regulatory revenues, which includes revenues from ORF and other regulatory fees and fines, the Exchange determined that absent a reduction in ORF, it would be collecting revenue in excess of 75% of its regulatory costs. Indeed, the Exchange notes that when taking into account the recent options volume, coupled with the projected reduction in regulatory costs, it estimates the ORF will generate revenues that would cover more than the approximated 75% of the Exchange's projected regulatory costs. Moreover, when coupled with the Exchange's other regulatory fees and revenues, the Exchange estimates ORF to generate over 100% of the Exchange's projected regulatory costs. As such, the Exchange believes it's reasonable and appropriate to decrease the ORF amount from $0.0045 to $0.0023 per contract side.

The Exchange also believes the proposed fee change is equitable and not unfairly discriminatory in that it is charged to all TPHs on all their transactions that clear in the customer range at the OCC. The Exchange believes the ORF ensures fairness by assessing higher fees to those TPHs that require more Exchange regulatory services based on the amount of customer options business they conduct. Regulating customer trading activity is much more labor intensive and requires greater expenditure of human and technical resources than regulating non-customer trading activity, which tends to be more automated and less labor-intensive. For example, there are costs associated with main office and branch office examinations (*e.g.,* staff and travel expenses), as well as investigations into customer complaints and the terminations of Registered persons. As a result, the costs associated with administering the customer component of the Exchange's overall regulatory program are materially higher than the costs associated with administering the non-customer component (*e.g.,* TPH proprietary transactions) of its regulatory program.[13] Moreover, the Exchange notes that it has broad regulatory responsibilities with respect to its TPHs' activities, irrespective of where their transactions take place. Many of the Exchange's surveillance programs for customer trading activity may require the Exchange to look at activity across all markets, such as reviews related to position limit violations and manipulation. Indeed, the Exchange cannot effectively review for such conduct without looking at and evaluating activity irregardless of where it transpires. In addition to its own surveillance programs, the Exchange also works with other SROs and exchanges on intermarket surveillance related issues. Through its participation in the Intermarket Surveillance Group (''ISG'')[14] the Exchange shares information and coordinates inquiries and investigations with other exchanges designed to address potential intermarket manipulation and trading abuses. Accordingly, there is a strong nexus between the ORF and the Exchange's regulatory activities with respect to its TPH's customer trading activity.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. This proposal does not create an unnecessary or inappropriate intra-market burden on competition because the ORF applies to all customer activity, thereby raising regulatory revenue to offset regulatory expenses. It also supplements the regulatory revenue derived from non-customer activity. The Exchange notes, however, the proposed change is not designed to address any competitive issues. Indeed, this proposal does not create an unnecessary or inappropriate inter-market burden on competition because it is a regulatory fee that supports regulation in furtherance of the purposes of the Act. The Exchange is obligated to ensure that the amount of regulatory revenue collected from the ORF, in combination with its other regulatory fees and fines, does not exceed regulatory costs.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

[9] The Exchange notes that its regulatory responsibilities with respect to TPH compliance with options sales practice rules have largely been allocated to FINRA under a 17d–2 agreement. The ORF is not designed to cover the cost of that options sales practice regulation.

[10] 15 U.S.C. 78f(b).

[11] 15 U.S.C. 78f(b)(4).

[12] 15 U.S.C. 78f(b)(5).

[13] If the Exchange changes its method of funding regulation or if circumstances otherwise change in the future, the Exchange may decide to modify the ORF or assess a separate regulatory fee on TPH proprietary transactions if the Exchange deems it advisable.

[14] ISG is an industry organization formed in 1983 to coordinate intermarket surveillance among the SROs by cooperatively sharing regulatory information pursuant to a written agreement between the parties. The goal of the ISG's information sharing is to coordinate regulatory efforts to address potential intermarket trading abuses and manipulations.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [15] and paragraph (f) of Rule 19b–4 [16] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–CBOE–2020–069 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File No. SR–CBOE–2020–069. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml).* Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR–CBOE–2020–069, and should be submitted on or before August 31, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[17]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2020–17350 Filed 8–7–20; 8:45 am]

BILLING CODE 8011–01–P

[15] 15 U.S.C. 78s(b)(3)(A).

[16] 17 CFR 240.19b–4(f).

[17] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89467; File No. SR–NASDAQ–2020–046]

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend the Exchange's Compliance Rule Under General 7 of the Exchange's Rulebook

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 31, 2020, The Nasdaq Stock Market LLC (''Nasdaq'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II, below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend General 7 of the Exchange Rulebook, the Exchange's compliance rule (''Compliance Rule'') regarding the National Market System Plan Governing the Consolidated Audit Trail (the ''CAT NMS Plan'' or ''Plan'') [3] to be consistent with an amendment to the CAT NMS Plan recently approved by the Commission.

The text of the proposed rule change is available on the Exchange's website at *https://listingcenter.nasdaq.com/rulebook/nasdaq/rules,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to amend General 7, the Compliance Rule regarding the CAT NMS Plan, to be consistent with an amendment to the CAT NMS Plan recently approved by the Commission.[4] The Commission approved an amendment to the CAT NMS Plan to amend the requirements for Firm Designated IDs in four ways: (1) To prohibit the use of account numbers as Firm Designated IDs for trading accounts that are not proprietary accounts; (2) to require that the Firm Designated ID for a trading account be persistent over time for each Industry Member so that a single account may be tracked across time within a single Industry Member; (3) to permit the use of relationship identifiers as Firm Designated IDs in certain circumstances; and (4) to permit the use of entity identifiers as Firm Designated IDs in certain circumstances (the ''FDID Amendment''). As a result, the Exchange proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1 to reflect the changes to the CAT NMS Plan regarding

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] Unless otherwise specified, capitalized terms used in this rule filing are defined as set forth in the Compliance Rule.

[4] Securities Exchange Act Release No. 89397 (July 24, 2020), 85 FR 45941 (July 30, 2020).

the requirements for Firm Designated IDs.

General 7, Section 1(r) defines the term ''Firm Designated ID'' to mean ''a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository, where each such identifier is unique among all identifiers from any given Industry Member for each business date.''

(1) Prohibit Use of Account Numbers

The Exchange proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1(r) to provide that Industry Members may not use account numbers as the Firm Designated ID for trading accounts that are not proprietary accounts. Specifically, the Exchange proposes to add the following to the definition of a Firm Designated ID: ''provided, however, such identifier may not be the account number for such trading account if the trading account is not a proprietary account.''

(2) Persistent Firm Designated ID

The Exchange also proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1(r) to require a Firm Designated ID assigned by an Industry Member to a trading account to be persistent over time, not for each business day.[5] To effect this change, the Exchange proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1(r) to add ''and persistent'' after ''unique'' and delete ''for each business date'' so that the definition of ''Firm Designated ID'' would read, in relevant part, as follows:

> a unique and persistent identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository . . . where each such identifier is unique among all identifiers from any given Industry Member.

(3) Relationship Identifiers

The FDID Amendment also permits an Industry Member to provide a relationship identifier as the Firm Designated ID, rather than an identifier that represents a trading account, in certain scenarios in which an Industry Member does not have an account number available to its order handling and/or execution system at the time of order receipt (*e.g.,* certain institutional accounts, managed accounts, accounts for individuals). In such scenarios, the trading account structure may not be available when a new order is first received from a client and, instead, only an identifier representing the client's trading relationship is available. In these limited instances, the Industry Member may provide an identifier used by the Industry Member to represent the client's trading relationship with the Industry Member instead of an account number.

When a trading relationship is established at a broker-dealer for clients, the broker-dealer typically creates a parent account, under which additional subaccounts are created. However, in some cases, the broker-dealer establishes the parent relationship for a client using a relationship identifier as opposed to an actual parent account. The relationship identifier could be any of a variety of identifiers, such as a short name for a relevant individual or institution. This relationship identifier is established prior to any trading for the client. If a relationship identifier has been established rather than a parent account, and an order is placed on behalf of the client, any executed trades will be kept in a firm account (*e.g.,* a facilitation or average price account) until they are allocated to the proper subaccount(s), *i.e.,* the accounts associated with the parent relationship identifier connecting them to the client.

Relationship identifiers are used in circumstances in which the account structure is not available to the trading system at the time of order placement. The clients have established accounts prior to the trade that satisfy relevant regulatory obligations for opening accounts, such as Know Your Customer and other customer obligations. However, the order receipt workflows operate using relationship identifiers, not accounts.

For Firm Designated ID purposes, as with an identifier for a trading account, the relationship identifier must be persistent over time. The relationship identifier also must be unique among all identifiers from any given Industry Member. With these requirements, a single relationship could be tracked across time within a single Industry Member using the Firm Designated ID. In addition, the relationship identifier must be masked as the relationship identifier could be a name or otherwise provide an indication as to the identity of the relationship. The masking requirement would avoid potentially revealing the identity of the relationship.

An example of the use of a relationship identifier as a Firm Designated ID would be as follows: Suppose that Big Fund Manager is known in Industry Member A's systems as ''BFM1.'' When an order is placed by Big Fund Manager, the order is tagged to BFM1. Industry Member A could use a masked version of BFM1 in place of the Firm Designated ID representing a trading account when reporting a new order from Big Fund Manager instead of the account numbers to which executed shares/contracts will be allocated at a later time via a booking or other system. Similarly, another example of the use of a relationship identifier as a Firm Designated ID would involve an individual in place of the Big Fund Manager in the above example.

In accordance with the FDID Amendment, the Exchange proposes to amend the definition of a ''Firm Designated ID'' in General 7, Section 1(r) to permit Industry Members to provide a relationship identifier as the Firm Designated ID as described above. Specifically, the Exchange proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1(r) to state that a Firm Designated ID means, in relevant part, ''a unique and persistent relationship identifier when an Industry Member does not have an account number available to its order handling and/or execution system at the time of order receipt, provided, however, such identifier must be masked.''

(4) Entity Identifiers

The FDID Amendment also permits Industry Members to provide an entity identifier, rather than an identifier that represents a trading account, when an employee of the Industry Member is exercising discretion over multiple client accounts and creates an aggregated order for which a trading account number of the Industry Member is not available at the time of order origination. An entity identifier is an identifier of the Industry Member that represents the firm discretionary relationship with the client rather than a firm trading account.

The scenarios in which a firm uses an entity identifier are comparable to when a firm uses a relationship identifier (as described above) except the entity identifier represents the Industry Member rather than a client. As with relationship identifiers, entity identifiers are used in circumstances in which the account structure is not

[5] If an Industry Member assigns a new account number or entity identifier to a client or customer due to a merger, acquisition or some other corporate action, then the Industry Member should create a new Firm Designated ID to identify the new account identifier/relationship identifier/entity identifier in use at the Industry Member for the entity. In addition, if a previously assigned Firm Designated ID is no longer in use by an Industry Member (*e.g.,* if the trading account associated with the Firm Designated ID has been closed), then an Industry Member may reuse the Firm Designated ID for another trading account. The Plan Processor will maintain a history of the use of each Firm Designated ID, including, for example, the effective dates of the Firm Designated ID with respect to each associated trading account.

available to the trading system at the time of order placement. In this workflow, the Industry Member's order handling and/execution system does not have an account number at the time of order origination. The relevant clients that will receive an allocation of the execution have established accounts prior to the trade that satisfy relevant regulatory obligations for opening accounts, such as Know Your Customer and other customer obligations. However, the order origination workflows operate using entity identifiers, not accounts.

For Firm Designated ID purposes, as with the identifier for a trading account or a relationship, the entity identifier must be persistent over time. The entity identifier also must be unique among all identifiers from any given Industry Member. Each Industry Member must make its own risk determination as to whether it believes it is necessary to mask the entity identifier when using an entity identifier to report the Firm Designated ID to CAT.

An example of the use of an entity identifier as a Firm Designated ID would be when Industry Member 1 has an employee that is a registered representative that has discretion over several client accounts held at Industry Member 1. The registered representative places an order that he will later allocate to individual client accounts. At the time the order is placed, the trading system only knows it involves a representative of Industry Member 1 and it does not have a specific trading account that could be used for Firm Designated ID reporting. Therefore, Industry Member 1 could report IM1, its entity identifier, as the FDID with the new order.

In accordance with the FDID Amendment, the Exchange proposes to amend the definition of ''Firm Designated ID'' in General 7, Section 1(r) to permit the use of an entity identifier as a Firm Designated ID as described above. Specifically, the Exchange proposes to amend the definition of a ''Firm Designated ID'' in General 7, Section 1(r) to state that a Firm Designated ID means, in relevant part, ''a unique and persistent entity identifier when an employee of an Industry Member is exercising discretion over multiple client accounts and creates an aggregated order for which a trading account number of the Industry Member is not available at the time of order origination.''

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6(b)(5) of the Act,[6] which require, among other things, that the Exchange's rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest, and Section 6(b)(8) of the Act,[7] which requires that the Exchange's rules not impose any burden on competition that is not necessary or appropriate.

The Exchange believes that this proposal is consistent with the Act because it is consistent with, and implements, a recent amendment to the CAT NMS Plan, and is designed to assist the Exchange and its Industry Members in meeting regulatory obligations pursuant to the Plan. In approving the Plan, the SEC noted that the Plan ''is necessary and appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanism of a national market system, or is otherwise in furtherance of the purposes of the Act.'' [8] To the extent that this proposal implements the Plan, and applies specific requirements to Industry Members, the Exchange believes that this proposal furthers the objectives of the Plan, as identified by the SEC, and is therefore consistent with the Act.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange notes that the proposed rule changes are consistent with a recent amendment to the CAT NMS Plan, and are designed to assist the Exchange in meeting its regulatory obligations pursuant to the Plan. The Exchange also notes that the FDID Amendment will apply equally to all Industry Members that trade NMS Securities and OTC Equity Securities. In addition, all national securities exchanges and FINRA are proposing this amendment to their Compliance Rules. Therefore, this is not a competitive rule filing, and, therefore, it does not impose a burden on competition.

[6] 15 U.S.C. 78f(b)(6) [sic].

[7] 15 U.S.C. 78f(b)(8).

[8] *See* Securities Exchange Act Release No. 79318 (November 15, 2016), 81 FR 84696, 84697 (November 23, 2016).

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act [9] and Rule 19b–4(f)(6) thereunder.[10] Because the proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [11] and Rule 19b–4(f)(6)(iii) thereunder.[12]

A proposed rule change filed under Rule 19b–4(f)(6) [13] normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b–4(f)(6)(iii),[14] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative by July 31, 2020. The Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest because it implements an amendment to the CAT NMS Plan approved by the Commission.[15] Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposal operative as of July 31, 2020.[16]

[9] 15 U.S.C. 78s(b)(3)(A)(iii).

[10] 17 CFR 240.19b–4(f)(6).

[11] 15 U.S.C. 78s(b)(3)(A).

[12] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires the Exchange to give the Commission written notice of the Exchange's intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[13] 17 CFR 240.19b–4(f)(6).

[14] 17 CFR 240.19b–4(f)(6)(iii).

[15] *See* Securities Exchange Act Release No. 89397 (July 24, 2020) (**Federal Register** publication pending).

[16] For purposes only of waiving the 30-day operative delay, the Commission has considered the

Continued

At any time within 60 days of the filing of this proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NASDAQ–2020–046 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NASDAQ–2020–046. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NASDAQ–2020–046, and should be submitted on or before August 31, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[17]

J. Matthew DeLesDernier,

Assistant Secretary.

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proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[17] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89470; File No. SR–C2–2020–008]

Self-Regulatory Organizations; Cboe C2 Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the Options Regulatory Fee

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on July 21, 2020, Cboe C2 Exchange, Inc. (the ''Exchange'' or ''C2 Options'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe C2 Exchange, Inc. (the ''Exchange'' or ''C2 Options'') proposes to amend its Fees Schedule relating to the Options Regulatory Fee. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's website (*http://markets.cboe.com/us/options/regulation/rule_filings/ctwo/*), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to reduce the Options Regulatory Fee (''ORF'') from $0.0012 per contract to $0.0004 per contract, effective August 3, 2020, in order to help ensure that revenue collected from the ORF, in combination with other regulatory fees and fines, does not exceed the Exchange's total regulatory costs.

The ORF is assessed by C2 Options to each Trading Permit Holder (''TPH'') for options transactions cleared by the TPH that are cleared by the Options Clearing Corporation (''OCC'') in the customer range, regardless of the exchange on which the transaction occurs.[3] In other words, the Exchange imposes the ORF on all customer-range transactions cleared by a TPH, even if the transactions do not take place on the Exchange. The ORF is collected by OCC on behalf of the Exchange from the Clearing Trading Permit Holder (''CTPH'') or non-CTPH that ultimately clears the transaction. With respect to linkage transactions, C2 Options reimburses its routing broker providing Routing Services pursuant to C2 Options Rule 6.15 for options regulatory fees it incurs in connection with the Routing Services it provides.

Revenue generated from ORF, when combined with all of the Exchange's other regulatory fees and fines, is designed to recover a material portion of the regulatory costs to the Exchange of the supervision and regulation of TPH customer options business including performing routine surveillances, investigations, examinations, financial monitoring, and policy, rulemaking, interpretive, and enforcement activities.

[3] The Exchange notes ORF also applies to customer-range transactions executed during Global Trading Hours.

Regulatory costs include direct regulatory expenses and certain indirect expenses for work allocated in support of the regulatory function. The direct expenses include in-house and third-party service provider costs to support the day to day regulatory work such as surveillances, investigations and examinations. The indirect expenses include support from such areas as human resources, legal, information technology, facilities and accounting. These indirect expenses are estimated to be approximately 1% of C2 Options' total regulatory costs for 2020. Thus, direct expenses are estimated to be approximately 99% of total regulatory costs for 2020. In addition, it is C2 Options' practice that revenue generated from ORF not exceed more than 75% of total annual regulatory costs.

The Exchange monitors its regulatory costs and revenues at a minimum on a semi-annual basis. If the Exchange determines regulatory revenues exceed or are insufficient to cover a material portion of its regulatory costs in a given year, the Exchange will adjust the ORF by submitting a fee change filing to the Commission. The Exchange also notifies TPHs of adjustments to the ORF via regulatory circular and/or Exchange Notice.[4] Based on the Exchange's most recent semi-annual review, the Exchange is proposing to reduce the amount of ORF that will be collected by the Exchange from $0.0012 per contract side to $0.0004 per contract side. The proposed decrease is based on the Exchange's estimated projections for its regulatory costs, which have decreased, balanced with recent options volumes, which has significantly increased. For example, total options contract volume in June 2020 was 82.2% higher than the total options contract volume in June 2019.[5] In fact, June 2020 was the highest options volume month in the history of U.S. equity options industry.[6] In particular, customer options volume across the industry has also significantly increased year to date. For example, total customer options contract volume in April 2020 was 50.27% higher than total customer volume in April 2019 and total customer options contract volume in May 2020, was 29.10% higher than total customer volume in May 2019. These expectations are estimated, preliminary and may change. There can be no assurance that the Exchange's final costs for 2020 will not differ materially from these expectations and prior practice, nor can the Exchange predict with certainty whether options volume will remain at the current level going forward. The Exchange notes however, that when combined with the Exchange's other non-ORF regulatory fees and fines, the revenue being generated by ORF using the current rate results in revenue that is running in excess of the Exchange's estimated regulatory costs for the year.[7] Particularly, as noted above, the options market has seen a substantial increase in volume over the first half of the year, due in large part to the extreme volatility in the marketplace as a result of the COVID–19 pandemic. This unprecedented spike in volatility resulted in significantly higher volume than was originally projected by the Exchange (thereby resulting in substantially higher ORF revenue than projected). Moreover, in addition to projected reductions in regulatory expenses, the Exchange experienced further unanticipated reductions in costs, in connection with COVID–19 (*e.g.,* reduction in travel expenses).[8] The Exchange therefore proposes to decrease the ORF in order to ensure it does not exceed its regulatory costs for the year. Particularly, the Exchange believes that by decreasing the ORF, as amended, when combined with all of the Exchange's other regulatory fees and fines, would allow the Exchange to continue covering a material portion of its regulatory costs, while lessening the potential for generating excess revenue that may otherwise occur using the current rate.[9]

The Exchange will continue to monitor the amount of revenue collected from the ORF to ensure that it, in combination with its other regulatory fees and fines, does not exceed the Exchange's total regulatory costs.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the ''Act'') and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.[10] Specifically, the Exchange believes the proposed rule change is consistent with Section 6(b)(4) of the Act,[11] which provides that Exchange rules may provide for the equitable allocation of reasonable dues, fees, and other charges among its TPHs and other persons using its facilities. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[12] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

The Exchange believes the proposed fee change is reasonable because customer transactions will be subject to a lower ORF fee than the current rate. Moreover, the proposed reduction is necessary in order for the Exchange to not collect revenue in excess of its anticipated regulatory costs, in combination with other regulatory fees and fines, which is consistent with the Exchange's practices. The Exchange had designed the ORF to generate revenues that would be less than or equal to 75% of the Exchange's regulatory costs, which is consistent with the view of the Commission that regulatory fees be used for regulatory purposes and not to support the Exchange's business operations. As discussed above, however, after its semi-annual review of its regulatory costs and regulatory revenues, which includes revenues from ORF and other regulatory fees and fines, the Exchange determined that absent a reduction in ORF, it would be collecting revenue in excess of 75% of its regulatory costs. Indeed, the Exchange notes that when taking into account the recent options volume, coupled with the projected reduction in regulatory costs, it estimates the ORF will generate revenues that would cover more than the approximated 75% of the Exchange's projected regulatory costs. Moreover, when coupled with the Exchange's other regulatory fees and revenues, the Exchange estimates ORF to generate over 100% of the Exchange's projected regulatory costs. As such, the Exchange believes it's reasonable and

[4] The Exchange endeavors to provide TPHs with such notice at least 30 calendar days prior to the effective date of the change. The Exchange notified TPHs of the proposed rate change for August 3, 2020 on July 1, 2020. *See* C2 Options Regulatory Circular RG20–042 ''Options Regulatory Fee Decrease and Discontinuation of Regulatory Circular'' and Exchange Notice, C2020070100 ''Cboe Options Exchanges Regulatory Fee Update Effective August 3, 2020.''

[5] *See https://www.theocc.com/Newsroom/Press-Releases/2020/07-01-OCC-June-2020-Total-Volume-Up-Nearly-81-Perc.*

[6] *Id.* The previous record for highest U.S. equity options volume was March 2020. For further context, the Exchange notes that The Options Clearing Corporation total volume for March 2020 was up 62.8% as compared to March 2019.

[7] Consistent with Rule 2.3 (Regulatory Revenue), the Exchange notes that notwithstanding the excess ORF revenue collected to date, it has not used such revenue for nonregulatory purposes.

[8] The Exchange notes that in connection with proposed ORF rate changes, it provides the Commission confidential details regarding the Exchange's projected regulatory revenue, including projected revenue from ORF, along with a breakout of its projected regulatory expenses, including both direct and indirect allocations.

[9] The Exchange notes that its regulatory responsibilities with respect to TPH compliance with options sales practice rules have largely been allocated to FINRA under a 17d–2 agreement. The ORF is not designed to cover the cost of that options sales practice regulation.

[10] 15 U.S.C. 78f(b).

[11] 15 U.S.C. 78f(b)(4).

[12] 15 U.S.C. 78f(b)(5).

appropriate to decrease the ORF amount from $0.0012 to $0.0004 per contract side.

The Exchange also believes the proposed fee change is equitable and not unfairly discriminatory in that it is charged to all TPHs on all their transactions that clear in the customer range at the OCC. The Exchange believes the ORF ensures fairness by assessing higher fees to those TPHs that require more Exchange regulatory services based on the amount of customer options business they conduct. Regulating customer trading activity is much more labor intensive and requires greater expenditure of human and technical resources than regulating non-customer trading activity, which tends to be more automated and less labor-intensive. For example, there are costs associated with main office and branch office examinations (*e.g.,* staff and travel expenses), as well as investigations into customer complaints and the terminations of Registered persons. As a result, the costs associated with administering the customer component of the Exchange's overall regulatory program are materially higher than the costs associated with administering the non-customer component (*e.g.,* TPH proprietary transactions) of its regulatory program.[13] Moreover, the Exchange notes that it has broad regulatory responsibilities with respect to its TPHs' activities, irrespective of where their transactions take place. Many of the Exchange's surveillance programs for customer trading activity may require the Exchange to look at activity across all markets, such as reviews related to position limit violations and manipulation. Indeed, the Exchange cannot effectively review for such conduct without looking at and evaluating activity irregardless of where it transpires. In addition to its own surveillance programs, the Exchange also works with other SROs and exchanges on intermarket surveillance related issues. Through its participation in the Intermarket Surveillance Group (''ISG'')[14] the Exchange shares information and coordinates inquiries and investigations with other exchanges designed to address potential intermarket manipulation and trading abuses. Accordingly, there is a strong nexus between the ORF and the Exchange's regulatory activities with respect to its TPH's customer trading activity.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. This proposal does not create an unnecessary or inappropriate intra-market burden on competition because the ORF applies to all customer activity, thereby raising regulatory revenue to offset regulatory expenses. It also supplements the regulatory revenue derived from non-customer activity. The Exchange notes, however, the proposed change is not designed to address any competitive issues. Indeed, this proposal does not create an unnecessary or inappropriate inter-market burden on competition because it is a regulatory fee that supports regulation in furtherance of the purposes of the Act. The Exchange is obligated to ensure that the amount of regulatory revenue collected from the ORF, in combination with its other regulatory fees and fines, does not exceed regulatory costs.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act[15] and paragraph (f) of Rule 19b–4[16] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–C2–2020–008 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File No. SR–C2–2020–008. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml).* Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR–C2–2020–008, and should be submitted on or before August 31, 2020.

[13] If the Exchange changes its method of funding regulation or if circumstances otherwise change in the future, the Exchange may decide to modify the ORF or assess a separate regulatory fee on TPH proprietary transactions if the Exchange deems it advisable.

[14] ISG is an industry organization formed in 1983 to coordinate intermarket surveillance among the SROs by cooperatively sharing regulatory information pursuant to a written agreement between the parties. The goal of the ISG's information sharing is to coordinate regulatory efforts to address potential intermarket trading abuses and manipulations.

[15] 15 U.S.C. 78s(b)(3)(A).

[16] 17 CFR 240.19b–4(f).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[17]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2020–17351 Filed 8–7–20; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89466; File No. SR–IEX–2020–10]

Self-Regulatory Organizations; Investors Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend the Rule Series 11.600, the Exchange's Compliance Rule Regarding the National Market System Plan Governing the Consolidated Audit Trail to be Consistent With an Amendment Recently Approved by the Commission

August 4, 2020.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that, on July 31, 2020, the Investors Exchange LLC (''IEX'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Pursuant to the provisions of Section 19(b)(1) of the Exchange Act,[3] and Rule 19b–4 thereunder,[4] IEX is filing with the Commission a proposed rule change to amend the Rule Series 11.600, the Exchange's compliance rule (''Compliance Rule'') regarding the National Market System Plan Governing the Consolidated Audit Trail (the ''CAT NMS Plan'' or ''Plan'')[5] to be consistent with an amendment to the CAT NMS Plan recently approved by the Commission.

The text of the proposed rule change is available at the Exchange's website at *www.iextrading.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statement may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to amend the Rule Series 11.600, the Compliance Rule regarding the CAT NMS Plan, to be consistent with an amendment to the CAT NMS Plan recently approved by the Commission.[6] The Commission approved an amendment to the CAT NMS Plan to amend the requirements for Firm Designated IDs in four ways: (1) To prohibit the use of account numbers as Firm Designated IDs for trading accounts that are not proprietary accounts; (2) to require that the Firm Designated ID for a trading account be persistent over time for each Industry Member so that a single account may be tracked across time within a single Industry Member; (3) to permit the use of relationship identifiers as Firm Designated IDs in certain circumstances; and (4) to permit the use of entity identifiers as Firm Designated IDs in certain circumstances (the ''FDID Amendment''). As a result, the Exchange proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610 to reflect the changes to the CAT NMS Plan regarding the requirements for Firm Designated IDs.

Rule 11.610(r) defines the term ''Firm Designated ID'' to mean ''a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository, where each such identifier is unique among all identifiers from any given Industry Member for each business date.''

(1) Prohibit Use of Account Numbers

The Exchange proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610(r) to provide that Industry Members may not use account numbers as the Firm Designated ID for trading accounts that are not proprietary accounts. Specifically, the Exchange proposes to add the following to the definition of a Firm Designated ID: ''Provided, however, such identifier may not be the account number for such trading account if the trading account is not a proprietary account.''

(2) Persistent Firm Designated ID

The Exchange also proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610(r) to require a Firm Designated ID assigned by an Industry Member to a trading account to be persistent over time, not for each business day.[7] To effect this change, the Exchange proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610(r) to add ''and persistent'' after ''unique'' and delete ''for each business date'' so that the definition of ''Firm Designated ID'' would read, in relevant part, as follows: ''A unique and persistent identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository . . . where each such identifier is unique among all identifiers from any given Industry Member.''

(3) Relationship Identifiers

The FDID Amendment also permits an Industry Member to provide a relationship identifier as the Firm Designated ID, rather than an identifier that represents a trading account, in certain scenarios in which an Industry Member does not have an account number available to its order handling and/or execution system at the time of order receipt (*e.g.,* certain institutional accounts, managed accounts, accounts for individuals). In such scenarios, the trading account structure may not be available when a new order is first received from a client and, instead, only

[17] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(1).

[4] 17 CFR 240.19b–4.

[5] Unless otherwise specified, capitalized terms used in this rule filing are defined as set forth in the Compliance Rule.

[6] Securities Exchange Act Release No. 89397 (July 24, 2020) (**Federal Register** pending).

[7] If an Industry Member assigns a new account number or entity identifier to a client or customer due to a merger, acquisition or some other corporate action, then the Industry Member should create a new Firm Designated ID to identify the new account identifier/relationship identifier/entity identifier in use at the Industry Member for the entity. In addition, if a previously assigned Firm Designated ID is no longer in use by an Industry Member (*e.g.,* if the trading account associated with the Firm Designated ID has been closed), then an Industry Member may reuse the Firm Designated ID for another trading account. The Plan Processor will maintain a history of the use of each Firm Designated ID, including, for example, the effective dates of the Firm Designated ID with respect to each associated trading account.

an identifier representing the client's trading relationship is available. In these limited instances, the Industry Member may provide an identifier used by the Industry Member to represent the client's trading relationship with the Industry Member instead of an account number.

When a trading relationship is established at a broker-dealer for clients, the broker-dealer typically creates a parent account, under which additional subaccounts are created. However, in some cases, the broker-dealer establishes the parent relationship for a client using a relationship identifier as opposed to an actual parent account. The relationship identifier could be any of a variety of identifiers, such as a short name for a relevant individual or institution. This relationship identifier is established prior to any trading for the client. If a relationship identifier has been established rather than a parent account, and an order is placed on behalf of the client, any executed trades will be kept in a firm account (*e.g.,* a facilitation or average price account) until they are allocated to the proper subaccount(s), *i.e.,* the accounts associated with the parent relationship identifier connecting them to the client.

Relationship identifiers are used in circumstances in which the account structure is not available to the trading system at the time of order placement. The clients have established accounts prior to the trade that satisfy relevant regulatory obligations for opening accounts, such as Know Your Customer and other customer obligations. However, the order receipt workflows operate using relationship identifiers, not accounts.

For Firm Designated ID purposes, as with an identifier for a trading account, the relationship identifier must be persistent over time. The relationship identifier also must be unique among all identifiers from any given Industry Member. With these requirements, a single relationship could be tracked across time within a single Industry Member using the Firm Designated ID. In addition, the relationship identifier must be masked as the relationship identifier could be a name or otherwise provide an indication as to the identity of the relationship. The masking requirement would avoid potentially revealing the identity of the relationship.

An example of the use of a relationship identifier as a Firm Designated ID would be as follows: Suppose that Big Fund Manager is known in Industry Member A's systems as ''BFM1.'' When an order is placed by Big Fund Manager, the order is tagged to BFM1. Industry Member A could use a masked version of BFM1 in place of the Firm Designated ID representing a trading account when reporting a new order from Big Fund Manager instead of the account numbers to which executed shares/contracts will be allocated at a later time via a booking or other system. Similarly, another example of the use of a relationship identifier as a Firm Designated ID would involve an individual in place of the Big Fund Manager in the above example.

In accordance with the FDID Amendment, the Exchange proposes to amend the definition of a ''Firm Designated ID'' in Rule 11.610(r) to permit Industry Members to provide a relationship identifier as the Firm Designated ID as described above. Specifically, the Exchange proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610(r) to state that a Firm Designated ID means, in relevant part, ''a unique and persistent relationship identifier when an Industry Member does not have an account number available to its order handling and/or execution system at the time of order receipt, provided, however, such identifier must be masked.''

(4) Entity Identifiers

The FDID Amendment also permits Industry Members to provide an entity identifier, rather than an identifier that represents a trading account, when an employee of the Industry Member is exercising discretion over multiple client accounts and creates an aggregated order for which a trading account number of the Industry Member is not available at the time of order origination. An entity identifier is an identifier of the Industry Member that represents the firm discretionary relationship with the client rather than a firm trading account.

The scenarios in which a firm uses an entity identifier are comparable to when a firm uses a relationship identifier (as described above) except the entity identifier represents the Industry Member rather than a client. As with relationship identifiers, entity identifiers are used in circumstances in which the account structure is not available to the trading system at the time of order placement. In this workflow, the Industry Member's order handling and/execution system does not have an account number at the time of order origination. The relevant clients that will receive an allocation of the execution have established accounts prior to the trade that satisfy relevant regulatory obligations for opening accounts, such as Know Your Customer and other customer obligations. However, the order origination workflows operate using entity identifiers, not accounts.

For Firm Designated ID purposes, as with the identifier for a trading account or a relationship, the entity identifier must be persistent over time. The entity identifier also must be unique among all identifiers from any given Industry Member. Each Industry Member must make its own risk determination as to whether it believes it is necessary to mask the entity identifier when using an entity identifier to report the Firm Designated ID to CAT.

An example of the use of an entity identifier as a Firm Designated ID would be when Industry Member 1 has an employee that is a registered representative that has discretion over several client accounts held at Industry Member 1. The registered representative places an order that he will later allocate to individual client accounts. At the time the order is placed, the trading system only knows it involves a representative of Industry Member 1 and it does not have a specific trading account that could be used for Firm Designated ID reporting. Therefore, Industry Member 1 could report IM1, its entity identifier, as the FDID with the new order.

In accordance with the FDID Amendment, the Exchange proposes to amend the definition of ''Firm Designated ID'' in Rule 11.610(r) to permit the use of an entity identifier as a Firm Designated ID as described above. Specifically, the Exchange proposes to amend the definition of a ''Firm Designated ID'' in Rule 11.610(r) to state that a Firm Designated ID means, in relevant part, ''a unique and persistent entity identifier when an employee of an Industry Member is exercising discretion over multiple client accounts and creates an aggregated order for which a trading account number of the Industry Member is not available at the time of order origination.''

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6(b)(5) of the Act,[8] which require, among other things, that the Exchange's rules must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest, and Section 6(b)(8) of the Act,[9] which requires that the Exchange's rules not

[8] 15 U.S.C. 78f(b)(6).

[9] 15 U.S.C. 78f(b)(8).

impose any burden on competition that is not necessary or appropriate.

The Exchange believes that this proposal is consistent with the Act because it is consistent with, and implements, a recent amendment to the CAT NMS Plan, and is designed to assist the Exchange and its Industry Members in meeting regulatory obligations pursuant to the Plan. In approving the Plan, the SEC noted that the Plan ''is necessary and appropriate in the public interest, for the protection of investors and the maintenance of fair and orderly markets, to remove impediments to, and perfect the mechanism of a national market system, or is otherwise in furtherance of the purposes of the Act.'' [10] To the extent that this proposal implements the Plan, and applies specific requirements to Industry Members, the Exchange believes that this proposal furthers the objectives of the Plan, as identified by the SEC, and is therefore consistent with the Act.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange notes that the proposed rule changes are consistent with a recent amendment to the CAT NMS Plan, and are designed to assist the Exchange in meeting its regulatory obligations pursuant to the Plan. The Exchange also notes that the FDID Amendment will apply equally to all Industry Members that trade NMS Securities and OTC Equity Securities. In addition, all national securities exchanges and FINRA are proposing this amendment to their Compliance Rules. Therefore, this is not a competitive rule filing, and, therefore, it does not impose a burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act [11] and Rule 19b–4(f)(6) thereunder.[12] Because the proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [13] and Rule 19b–4(f)(6)(iii) thereunder.[14]

A proposed rule change filed under Rule 19b–4(f)(6) [15] normally does not become operative prior to 30 days after the date of the filing. However, pursuant to Rule 19b–4(f)(6)(iii),[16] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative by July 31, 2020. The Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest because it implements an amendment to the CAT NMS Plan approved by the Commission.[17] Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposal operative as of July 31, 2020.[18]

At any time within 60 days of the filing of this proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–IEX–2020–10 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–IEX–2020–10. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–IEX–2020–10, and should be submitted on or before August 31, 2020.

[10] *See* Securities Exchange Act Release No. 79318 (November 15, 2016), 81 FR 84696, 84697 (November 23, 2016).

[11] 15 U.S.C. 78s(b)(3)(A)(iii).

[12] 17 CFR 240.19b–4(f)(6).

[13] 15 U.S.C. 78s(b)(3)(A).

[14] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires the Exchange to give the Commission written notice of the Exchange's intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[15] 17 CFR 240.19b–4(f)(6).

[16] 17 CFR 240.19b–4(f)(6)(iii).

[17] *See* Securities Exchange Act Release No. 89397 (July 24, 2020) (**Federal Register** publication pending).

[18] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[19] 17 CFR 200.30–3(a)(12).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[19]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2020–17347 Filed 8–7–20; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–89472; File No. SR–CboeBZX–2020–036]

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Order Instituting Proceedings To Determine Whether to Approve or Disapprove a Proposed Rule Change Relating to Rule 14.11, Other Securities, To Modify a Continued Listing Criterion for Certain Exchange-Traded Products

August 4, 2020.

On April 29, 2020, Cboe BZX Exchange, Inc. (''Exchange'' or ''BZX'') filed with the Securities and Exchange Commission (''Commission''), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'' or ''Exchange Act'')[1] and Rule 19b–4 thereunder,[2] a proposed rule change to amend one of the continued listing requirements relating to certain exchange-traded products (''ETPs'') under BZX Rule 14.11. The proposed rule change was published for comment in the **Federal Register** on May 7, 2020.[3]

On June 16, 2020, pursuant to Section 19(b)(2) of the Act,[4] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to disapprove the proposed rule change.[5] The Commission has received one comment letter on the proposed rule change.[6] The Commission is issuing this order to institute proceedings pursuant to Section 19(b)(2)(B) of the Act[7] to determine whether to approve or disapprove the proposed rule change.

I. Description of the Proposal

A continued listing requirement for certain ETPs[8] currently provides that, following the initial 12-month period after commencement of trading on the Exchange, the Exchange will consider the suspension of trading in, and will commence delisting proceedings under BZX Rule 14.12 for, shares of such ETPs for which there are fewer than 50 beneficial holders for 30 or more consecutive trading days (''Beneficial Holder Rule''). The Exchange is proposing to change the date after which an ETP must have at least 50 beneficial holders or be subject to delisting proceedings under BZX Rule 14.12 (''Non-Compliance Period''). Specifically, the Exchange seeks to extend the Non-Compliance Period from 12 months after commencement of trading on the Exchange to 36 months after commencement of trading on the Exchange.

A. The Exchange's Rationale

The Exchange asserts that it would be appropriate to increase the Non-Compliance Period from 12 months to 36 months because: (1) It would bring the rule more in line with the life cycle of an ETP; (2) the economic and competitive structures in place in the ETP ecosystem naturally incentivize issuers to de-list products rather than continuing to list products that do not garner investor interest; and (3) extending the period from 12 to 36 months will not meaningfully impact the manipulation concerns that the continued listing standard is intended to address.

According to the Exchange, the ETP space is more competitive that it has ever been, with more than 2000 ETPs listed on exchanges. As a result, distribution platforms have become more restrictive about the ETPs they will allow on their systems, often requiring a minimum track record (*e.g.,* twelve months) and a minimum level of assets under management (*e.g.,* $100 million). Many larger entities also require a one-year track record before they will invest in an ETP. In the Exchange's view, this has slowed the growth cycle of the average ETP, with the result that the Exchange has seen a significant number of deficiencies with respect to the Beneficial Holders Rule over the last several years. Specifically, the Exchange notes that it has issued deficiency notifications to 34 ETPs for non-compliance with the Beneficial Holders Rule in the last five years, 27 of which ultimately were able to achieve compliance while going through the delisting process.

In addition, the Exchange believes that the economic and competitive structures in place in the ETP ecosystem naturally incentivize issuers to de-list products with insufficient investor interest, and that the Beneficial Holders Rule has resulted in the forced termination of ETPs that issuers believed were still economically viable. The Exchange states that there are significant costs associated with the launch and continued operation of an ETP, and notes that the Exchange has had 69 products voluntarily delist in the last two years. The Exchange also questions whether the number of beneficial holders is a meaningful measure of market interest in an ETP, and believes that an ETP issuer is incentivized to have as many beneficial holders as possible.

Finally, the Exchange states that the proposal ''does not create any significant change in the risk of manipulation for ETPs listed on the exchange.'' The Exchange ''does not believe there is anything particularly important about the 50th Beneficial Holder that reduces the manipulation risk associated with an ETP as compared to the 49th, nor is there any manipulation concern that arises on the 366th day after an ETP began trading on the Exchange that didn't otherwise exist on the 1st, 2nd, or 365th day.''[9] The Exchange also states that it has in place a robust surveillance program for ETPs that it believes is sufficient to deter and detect manipulation and other violative activity, and that the Exchange (or the Financial Industry Regulatory Authority on its behalf) communicates as needed with other members of the Intermarket Surveillance Group. The Exchange believes that ''these robust surveillance procedures will further act to mitigate concerns that arise from extending the compliance period for the Beneficial Holders [Rule] from 12 months to 36 months.''[10] Lastly, the Exchange takes the position that other continued listing standards (*e.g.,* with respect to the diversity, liquidity and size of an ETP's holdings or reference assets) ''are generally sufficient to mitigate manipulation concerns associated with the applicable ETP.''[11]

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 88795 (May 1, 2020), 85 FR 27254 (''Notice'').

[4] 15 U.S.C. 78s(b)(2).

[5] *See* Securities Exchange Act Release No. 89076, 85 FR 37488 (June 22, 2020). The Commission designated August 5, 2020 as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change.

[6] Comments on the proposed rule change can be found on the Commission's website at: *https://www.sec.gov/comments/sr-cboebzx-2020-036/srcboebzx2020036.htm.*

[7] 15 U.S.C. 78s(b)(2)(B).

[8] For purposes of the proposal, the term ''ETP'' means securities listed pursuant to BZX Rule 14.11(c) (Index Fund Shares), BZX Rule 14.11(i) (Managed Fund Shares), and BZX Rule 14.11(l) (Exchange-Traded Fund Shares (''ETF Shares'')).

[9] *See* Notice, *supra* note 3, 85 FR at 27256.

[10] *See id.*

[11] *See id.*

B. Comment on the Proposed Rule Change

The Commission received one comment in support of the proposal.[12] The commenter states that the beneficial owner requirement disproportionately punishes smaller companies without the resources to pay for aggressive distribution, and disincentivizes issuers from launching funds that can prove themselves purely by investment merit over the long term.[13] The commenter believes that the purpose of the beneficial holder minimum likely is to enforce some sort of minimum liquidity, and accordingly suggests alternative liquidity measures such as the quality of secondary markets (*e.g.,* spreads and depth of book), the liquidity of the underlying basket, and the number of potential liquidity providers. In this commenter's view, increasing the time period to achieve the minimum number of beneficial holders is a positive step, but eliminating the requirement altogether would be far more purposeful.[14]

II. Proceedings To Determine Whether To Approve or Disapprove SR–CboeBZX–2020–036 and Grounds for Disapproval Under Consideration

The Commission is instituting proceedings pursuant to Section 19(b)(2)(B) of the Act[15] to determine whether the proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved.

Pursuant to Section 19(b)(2)(B) of the Act,[16] the Commission is providing notice of the grounds for disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of and input concerning the proposed rule change's consistency with the Act and, in particular, Section 6(b)(5) of the Act, which requires, among other things, that the rules of a national securities exchange be ''designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest; and are not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.''[17]

The Commission has consistently recognized the importance of the minimum number of holders and other similar requirements in exchange listing standards. Among other things, such listing standards help ensure that exchange listed securities have sufficient public float, investor base, and trading interest to provide the depth and liquidity necessary to promote fair and orderly markets.[18]

As discussed above, the Exchange is proposing to increase the Non-Compliance Period from 12 months to 36 months, thereby extending by two years the length of time during which an ETP listed on the Exchange would have no requirement to have a minimum number of beneficial holders. In support of its proposal, the Exchange emphasizes that some ETPs have had difficulty complying with the Beneficial Holders Rule. The Exchange indicates that noncompliance with the Beneficial Holders Rule is increasing because the ETP market has become so competitive, and there are so many of them, that it can be difficult to acquire the requisite number of beneficial holders within the existing Non-Compliance Period. The Exchange also believes that the existing Beneficial Holders Rule forces the delisting of ETPs that may still be economically viable. With respect to regulatory considerations, the Exchange takes the position that the manipulation risk would not be materially greater if an ETP had 49 beneficial holders as opposed to 50, and that no new manipulation concerns would arise with a longer Non-Compliance Period than a shorter one. The Exchange also asserts that existing surveillances and other listing standards are sufficient to mitigate manipulation concerns.

While the Exchange takes the position that the highly-competitive ETP market has made compliance with the Beneficial Holders Rule difficult, and led to the delisting of ETPs that may be economically viable, the Exchange does not explain why these compliance difficulties justify extending the Non-Compliance Period for this core quantitative listing standard for an additional two years. For example, the Exchange states that the manipulation risk is not materially greater with 49 beneficial holders than with 50, but the Exchange is proposing to require no minimum number during the Non-Compliance Period, and does not explain why the manipulation and other regulatory risks would not be greater with a very small number of beneficial holders. The Exchange also states that no new manipulation concerns would arise with a longer Non-Compliance Period than a shorter one, but does not explain why tripling the period during which the same regulatory risks posed by a Non-Compliance Period would be present, is consistent with the Exchange Act. The Exchange takes the position that existing surveillances and other listing standards are sufficient to mitigate manipulation concerns, but does not explain in any detail the basis for this view, or the impact of its proposal on the maintenance of fair and orderly markets or other applicable Exchange Act standards.

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the self-regulatory organization ['SRO'] that proposed the rule change.''[19] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding, and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Exchange Act and the applicable rules and regulations.[20]

For these reasons, the Commission believes it is appropriate to institute proceedings pursuant to Section 19(b)(2)(B) of the Act to determine whether the proposal should be approved or disapproved.

[12] *See* Letter to Secretary, Commission, from S Phil Bak, Founder & CEO, SecLenX (May 13, 2020) (''SecLenX Letter'').

[13] *See id.* at 1.

[14] *See id.* at 2.

[15] 15 U.S.C. 78s(b)(2)(B).

[16] *Id.*

[17] 15 U.S.C. 78f(b)(5).

[18] *See, e.g.,* Securities Exchange Act Release No. 57785 (May 6, 2008), 73 FR 27597 (May 13, 2008)(SR–NYSE–2008–17) (stating that the distribution standards, which includes exchange holder requirements ''. . . should help to ensure that the [Special Purpose Acquisition Company's] securities have sufficient public float, investor base, and liquidity to promote fair and orderly markets''); Securities Exchange Act Release No. 86117 (June 14, 2019), 84 FR 28879 (June 20, 2018) (SR–NYSE–2018–46) (disapproving a proposal to reduce the minimum number of public holders continued listing requirement applicable to Special Purpose Acquisition Companies from 300 to 100).

[19] Rule 700(b)(3), Commission Rules of Practice, 17 CFR 201.700(b)(3).

[20] *See id.*

IV. Commission's Solicitation of Comments

The Commission requests that interested persons provide written submissions of their views, data, and arguments with respect to the issues identified above, as well as any other concerns they may have with the proposal. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Section 6(b)(5) or any other provision of the Act, or the rules and regulations thereunder. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[21]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by August 31, 2020. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by September 14, 2020. The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, which are set forth in the Notice, in addition to any other comments they may wish to submit about the proposed rule change.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–CboeBZX–2020–036 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–CboeBZX–2020–036. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CboeBZX–2020–036 and should be submitted by August 31, 2020. Rebuttal comments should be submitted by September 14, 2020.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[22]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2020–17353 Filed 8–7–20; 8:45 am]

BILLING CODE 8011–01–P

[21] Section 19(b)(2) of the Act, as amended by the Securities Act Amendments of 1975, Public Law 94–29 (June 4, 1975), grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by a self-regulatory organization. *See* Securities Act Amendments of 1975, Senate Comm. on Banking, Housing & Urban Affairs, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[22] 17 CFR 200.30–3(a)(57).

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Highway in California

AGENCY: Federal Highway Administration (FHWA), Department of Transportation (DOT).

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by the California Department of Transportation (Caltrans).

SUMMARY: The FHWA, on behalf of Caltrans, is issuing this notice to announce actions taken by Caltrans, that are final. The actions relate to a proposed highway improvement project along State Route 70 in the County of Yuba, State of California. Those actions grant licenses, permits, and approvals for the project.

DATES: By this notice, the FHWA, on behalf of Caltrans, is advising the public of final agency actions subject to 23 U.S.C. 139(*l*)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before January 7, 2021. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For Caltrans: Cara Lambirth, Branch Chief, Caltrans Office of Environmental Management, M–3 California Department of Transportation-District 3, 703 B Street, Marysville, CA 95901. Office Hours: 8:00 a.m.–5:00 p.m., Pacific Standard Time, telephone (530) 741–4549 or email *cara.lambirth@dot.ca.gov.* For FHWA, contact David Tedrick at (916) 498–5024 or email *david.tedrick@dot.gov.*

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, FHWA assigned, and the Caltrans assumed, environmental responsibilities for this project pursuant to 23 U.S.C. 327. Notice is hereby given that the Caltrans has taken final agency actions subject to 23 U.S.C. 139(*l*)(1) by issuing licenses, permits, and approvals for the following highway project in the State of California.

The Caltrans proposes a project along a 9.6-mile portion of State Route 70 (SR 70) from Laurellen Road to Honcut Creek Bridge in Yuba County. The project is intended to improve travel times along the corridor which will result in greater reliability and efficiency for the movement of goods, provide better connectivity between Yuba County and the Sacramento Valley, and support the overall economic viability of the Yuba County region. This project will address operational deficiencies in the corridor, but these improvements improve the overall safety of travelers within the corridor.

The actions by the Federal agencies, and the laws under which such actions were taken, are described in the Final Environmental Assessment (FEA)/Finding of No Significant Impact (FONSI) for the project, issued July 16, 2020, and in other documents in Caltrans' project records. The FEA, FONSI and other project records are available by contacting Caltrans at the addresses provided above. The Caltrans FEA, FONSI and other project records can be viewed and downloaded from the project website at *https://dot.ca.gov/*

caltrans-near-me/district-3/d3-programs/d3-environmental/d3-environmental-docs

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. Council on Environmental Quality Regulations
2. National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 *et seq.*
3. Federal-Aid Highway Act of 1970, 23 U.S.C 109
4. MAP–21, the Moving Ahead for Progress in the 21st Century Act (Pub.L. 112–141)
5. Clean Air Act Amendments of 1990 (CAAA)
6. Clean Water Act of 1977 and 1987
7. Federal Water Pollution Control Act of 1972 (see Clean Water Act of 1977 & 1987)
8. Federal Land Policy and Management Act of 1976 (Paleontological Resources)
9. Noise Control Act of 1972
10. Safe Drinking Water Act of 1944, as amended
11. Endangered Species Act of 1973
12. Executive Order 11990, Protection of Wetlands
13. Executive Order 13112, Invasive Species
14. Executive Order 13186, Migratory Birds
15. Fish and Wildlife Coordination Act of 1934, as amended
16. Migratory Bird Treaty Act
17. Water Bank Act Wetlands Mitigation Banks, ISTEA 1991, Sections 1006–1007
18. Wildflowers, Surface Transportation and Uniform Relocation Act of 1987 Section 130
19. Coastal Zone Management Act of 1972
20. Coastal Zone Management Act Reauthorization Amendments Of 1990
21. Executive Order 11988, Floodplain Management
22. Department of Transportation (DOT) Executive Order 5650.2—Floodplain Management and Protection (April 23, 1979)
23. Rivers and Harbors Appropriation Act of 1899, Sections 9 and 10
24. Title VI of the Civil Rights Act of 1964, as amended
25. Executive Order 12898, Federal Actions to Address Environmental Justice and Low-Income Populations

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139(*l*)(1)

Issued on: August 4, 2020.

Rodney Whitfield,

Director, Financial Services, Federal Highway Administration, California Division.

[FR Doc. 2020–17450 Filed 8–7–20; 8:45 am]

BILLING CODE 4910–RY–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Highway in Michigan

AGENCY: Federal Highway Administration (FHWA), Transportation (DOT).

ACTION: Notice of limitation on claims for judicial review of actions by FHWA and other Federal agencies.

SUMMARY: This notice announces actions taken by FHWA and other Federal agencies that are final. This final agency action relates to a proposed highway project, I–94, from I–96 to Conner Avenue in the city of Detroit, Wayne County, State of Michigan. The FHWA's Record of Decision provides details on the Selected Alternative for the proposed improvements.

DATES: By this notice, FHWA is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1)–(2). A claim seeking judicial review of the Federal agency action on the highway project will be barred unless the claim is filed on or before January 7, 2021. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: For FHWA: Ruth Hepfer, Environment/Right-of-way Specialist, FHWA Michigan Division, 315 Allegan, Room 201, Lansing, MI 48933, Telephone: (517) 702–1847, Email: *Ruth.Hepfer@dot.gov.* The FHWA Michigan Division Office's normal business hours are 8:00 a.m. to 4:30 p.m. (Eastern Standard Time). For the Michigan Department of Transportation (MDOT): Terry Stepanski, P.E., Senior Project Manager, Michigan Department of Transportation, P.O. Box 30050, 425 W Ottawa Street, Lansing, MI 48909, Telephone: (517) 241–0233, Email: *StepanskiT@michigan.gov.* The Michigan Department of Transportation's normal business hours are 8:00 a.m. to 5:00 p.m. (Eastern Standard Time).

SUPPLEMENTARY INFORMATION: Notice is hereby given that FHWA has taken final agency action by issuing a Record of Decision for the following highway project in the State of Michigan: I–94 Detroit Modernization Project in Wayne County including modernization of approximately 6.7 miles of Interstate freeway (I–94) in the city of Detroit, Michigan between I–96 and Conner Avenue. Improvements include adding a travel lane in each direction, modernizing system and service interchanges, reconstructing bridges crossing over the freeway, and work on the service drives. The project is included in MDOT's adopted 2020–2023 State Transportation Improvement Program (STIP) and 2045 State Long Range Plan. The project is also included in the Southeast Michigan Council of Government's (SEMCOG) 2020–2023 Transportation Improvement Program and 2045 Regional Transportation Plan.

The FHWA's action, related actions by other Federal agencies and the laws under which such actions were taken, are described in the Combined Final Supplemental Environmental Impact Statement and Record of Decision (Combined FSEIS and ROD) for the project, approved on June 30, 2020, and in other documents in the project file. The Combined FSEIS and ROD is available for review by contacting FHWA or MDOT at the addresses provided above. In addition, these documents can be viewed and downloaded from the project website at: *https://i94detroit.org/.*

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. *General:* National Environmental Policy Act (NEPA) [42 U.S.C. 4321–4351]; Federal-Aid Highway Act [23 U.S.C. 109 and 23 U.S.C. 128].
2. *Air:* Clean Air Act [42 U.S.C. 7401–7671(q)].
3. *Land:* Section 4(f) of the Department of Transportation Act of 1966 [49 U.S.C. 303]; Landscaping and Scenic Enhancement (Wildflowers) [23 U.S.C. 319].
4. *Wildlife:* Endangered Species Act (ESA) [16 U.S.C. 1531–1544 and Section 1536]; Marine Mammal Protection Act [16 U.S.C. 1361]; Anadromous Fish Conservation Act [16 U.S.C. 757(a)–757(g)], Fish and Wildlife Coordination Act [16 U.S.C. 661–667d]; Migratory Bird Treaty Act [16 U.S.C. 703–712], Magnuson-Stevenson Fishery Conservation and Management Act of 1976, as amended [16 U.S.C. 1801 *et seq.*].

5. *Historic and Cultural Resources:* Section 106 of the National Historic Preservation Act of 1966, as amended [16 U.S.C. 470(f) *et seq.*]; Archeological Resources Protection Act of 1977 [16 U.S.C. 470(aa)–470(ll)]; Archeological and Historic Preservation Act [16 U.S.C. 469–469c]; Native American Grave Protection and Repatriation Act (NAGPRA) [25 U.S.C. 3001–3013].

6. *Social and Economic:* Civil Rights Act of 1964 [42 U.S.C. 2000(d)–2000(d)(1)]; American Indian Religious Freedom Act [42 U.S.C. 1996]; Farmland Protection Policy Act (FPPA) [7 U.S.C. 4201–4209].

7. *Wetlands and Water Resources:* Clean Water Act (Section 404, Section 401, Section 319) [33 U.S.C. 1251–1377]; Coastal Barrier Resources Act [16 U.S.C. 3501–3510]; Coastal Zone Management Act [16 U.S.C. 1451–1465]; Land and Water Conservation Fund (LWCF) [16 U.S.C. 4601–4604]; Safe Drinking Water Act (SDWA) [42 U.S.C. 300(f)-300(j)(6)]; Rivers and Harbors Act of 1899 [33 U.S.C. 401–406]; Wild and Scenic Rivers Act [16 U.S.C. 1271–1287]; Emergency Wetlands Resources Act, [16 U.S.C. 3921, 3931]; TEA–21 Wetlands Mitigation [23 U.S.C. 103(b)(6)(M, 133(b)(11)]; Flood Disaster Protection Act [42 U.S.C. 4001–4128].

8. *Hazardous Materials:* Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [42 U.S.C. 9601–9675]; Superfund Amendments and Reauthorization Act of 1986 (SARA); Resource Conservation and Recovery Act (RCRA) [42 U.S.C. 6901–6992(k)].

9. *Executive Orders:* E.O. 11990 Protection of Wetlands; E.O. 11988 Floodplain Management; E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations; E.O. 11593 Protection and Enhancement of Cultural Resources; E.O. 13007 Indian Sacred Sites; E.O. 13287 Preserve America; E.O. 13175 Consultation and Coordination with Indian Tribal Governments; E.O. 11514 Protection and Enhancement of Environmental Quality; E.O. 13112 Invasive Species.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139 (l)(1).

Issued on: August 3, 2020.

Russell L. Jorgenson,

Division Administrator, Lansing, Michigan.

[FR Doc. 2020–17182 Filed 8–7–20; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Notice of Final Federal Agency Actions on Proposed Highway Projects in Texas

AGENCY: Texas Department of Transportation (TxDOT), Federal Highway Administration (FHWA), U.S. Department of Transportation.

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by TxDOT and Federal Agencies.

SUMMARY: This notice announces actions taken by TxDOT and Federal agencies that are final. The environmental review, consultation, and other actions required by applicable Federal environmental laws for these projects are being, or have been, carried-out by TxDOT pursuant to an assignment agreement executed by FHWA and TxDOT. The actions relate to various proposed highway projects in the State of Texas. These actions grant licenses, permits, and approvals for the projects.

DATES: By this notice, TxDOT is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1). A claim seeking judicial review of TxDOT and Federal agency actions on the highway projects will be barred unless the claim is filed on or before the deadline. For the projects listed below, the deadline is January 7, 2021. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such a claim, then that shorter time period still applies.

FOR FURTHER INFORMATION CONTACT: Carlos Swonke, Environmental Affairs Division, Texas Department of Transportation, 125 East 11th Street, Austin, Texas 78701; telephone: (512) 416–2734; email: *carlos.swonke@txdot.gov.* TxDOT's normal business hours are 8:00 a.m.–5:00 p.m. (central time), Monday through Friday.

SUPPLEMENTARY INFORMATION: The environmental review, consultation, and other actions required by applicable Federal environmental laws for these projects are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.

Notice is hereby given that TxDOT and Federal agencies have taken final agency actions by issuing licenses, permits, and approvals for the highway projects in the State of Texas that are listed below.

The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS) issued in connection with the projects and in other key project documents. The CE, EA, or EIS and other key documents for the listed projects are available by contacting TxDOT at the address provided above.

This notice applies to all TxDOT and Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. *General:* National Environmental Policy Act (NEPA) [42 U.S.C. 4321–4351]; Federal-Aid Highway Act [23 U.S.C. 109].

2. *Air:* Clean Air Act, 42 U.S.C. 7401–7671(q).

3. *Land:* Section 4(f) of the Department of Transportation Act of 1966 [49 U.S.C. 303]; Landscaping and Scenic Enhancement (Wildflowers), 23 U.S.C. 319.

4. *Wildlife:* Endangered Species Act [16 U.S.C. 1531–1544 and Section 1536], Marine Mammal Protection Act [16 U.S.C. 1361], Fish and Wildlife Coordination Act [16 U.S.C. 661–667(d)], Migratory Bird Treaty Act [16 U.S.C. 703–712].

5. *Historic and Cultural Resources:* Section 106 of the National Historic Preservation Act of 1966, as amended [54 U.S.C. 300101 *et seq.*]; Archeological Resources Protection Act of 1977 [16 U.S.C. 470(aa)–11]; Archeological and Historic Preservation Act [54 U.S.C. 312501 *et seq.*]; Native American Grave Protection and Repatriation Act (NAGPRA) [25 U.S.C. 3001–3013].

6. *Social and Economic:* Civil Rights Act of 1964 [42 U.S.C. 2000(d)–2000(d)(1)]; American Indian Religious Freedom Act [42 U.S.C. 1996]; Farmland Protection Policy Act (FPPA) [7 U.S.C. 4201–4209].

7. *Wetlands and Water Resources:* Clean Water Act, 33 U.S.C. 1251–1377 (Section 404, Section 401, Section 319); Land and Water Conservation Fund (LWCF), 16 U.S.C. 4601–4604; Safe Drinking Water Act (SDWA), 42 U.S.C. 300(f)–300(j)(6); Rivers and Harbors Act of 1899, 33 U.S.C. 401–406; Wild and Scenic Rivers Act, 16 U.S.C. 1271–1287; Emergency Wetlands Resources Act, 16 U.S.C. 3921, 3931; TEA–21 Wetlands Mitigation, 23 U.S.C. 103(b)(6)(m), 133(b)(11); Flood Disaster Protection Act, 42 U.S.C. 4001–4128.

8. *Executive Orders:* E.O. 11990 Protection of Wetlands; E.O. 11988 Floodplain Management; E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations; E.O. 11593 Protection and Enhancement of Cultural Resources; E.O. 13007 Indian Sacred Sites; E.O. 13287 Preserve America; E.O. 13175 Consultation and Coordination with Indian Tribal Governments; E.O. 11514 Protection and Enhancement of Environmental Quality; E.O. 13112 Invasive Species. (Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction.)

The projects subject to this notice are:

1. SH 6 from SH 16 North to the East city limit of De Leon, Comanche County, Texas. The project proposes to expand the roadway from two to four lanes and include a center turn lane. The reconstruction of the roadway includes adding pavement width, illumination, traffic signals, sidewalks, curb and gutter, and storm drains throughout the entire approximate 2 mile limits. The purpose is to enhance safety and improve mobility by allowing for safer turning movements into numerous driveways along this facility. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion approved on October 25, 2019. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Brownwood District Office at 2495 HWY 183 North, Brownwood, Texas 76802; telephone (325) 643–0413.

2. IH 35 from Shiloh Drive to 0.25 Miles N of US 59/IH 69 W in Webb County, Texas. The proposed project would be constructed in two phases. The first phase would fill in the current railroad underpass and construct a railroad overpass allowing for six main lanes of I–35 traffic to pass over the Union Pacific Railroad (UPRR). This project would be approximately 1.0-mile long. The second phase would extend the frontage roads by constructing two lane frontage road bridges over the UPRR for both the north bound and south bound frontage roads. These new bridges would tie into the frontage roads/turnarounds that were constructed under the first phase. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on October 28, 2019 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Laredo District Office at 1817 Bob Bullock Loop, Laredo, TX 78043; telephone (956) 712–7416.

3. William J. Bryan Parkway (FM 158) Improvement Project from BS 6–R (Texas Ave.) to SH 6, Brazos County, Texas. The proposed project would install shared use paths and sidewalks, raised medians, and improve intersections. The purpose of the proposed project is to enhance safety and mobility along the Parkway. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on February 26, 2019, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Bryan District Office at 2591 North Earl Rudder Freeway, Bryan, Texas 77803–5190; telephone (979) 778–9764.

4. County Road (CR) 59 from CR 48 to Kirby Drive in Brazoria County, Texas. The project will widen CR 59 from two-lanes to four lanes divided by a raised median. The project also includes drainage features and a shared use path. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on December 11, 2019 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Houston District Office located at 7600 Washington Avenue, Houston, Texas 77007; telephone (713) 802–5076.

5. New SH 205 (John King Boulevard) from the junction of SH 205/John King (South Goliad Street) to the junction of SH 205/John King (North Goliad Street) in Rockwall County, Texas. John King Boulevard currently serves as a bypass for SH 205 around the east side of the City of Rockwall's downtown area. The proposed project would widen existing John King Boulevard to an ultimate six-lane, divided, urban highway that would be re-designated as SH 205. New connections that would tie John King Boulevard directly into SH 205 are proposed at the northern and southern project termini. In addition, the improvements include a proposed underpass of the Dallas Garland & Northeastern Railroad. The purpose of the proposed project is to improve traffic mobility and reduce congestion. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on January 13, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E. Highway 80, Mesquite, TX 75150; telephone (214) 320–4480.

6. County Road (CR) 58 from Savannah Development to CR 48 in Brazoria County, Texas. The project will widen CR 58 from two lanes to four lanes divided by a raised median. The project also includes drainage features such as curb-and-gutter and a redesigned open drainage system with detention basin. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on January 16, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Houston District Office located at 7600 Washington Avenue, Houston, Texas 77007; telephone (713) 802–5076.

7. US 380 from Airport Drive to CR 458 in Collin County, Texas. The proposed project would widen the current 4-lane divided rural and urban sections to a 6-lane divided urban thoroughfare with two 12-foot wide lanes and one 14-foot wide outside lane in each direction. The project would include a 15-foot raised median, curb and gutter, and 6.5-foot sidewalks. The length of the proposed project is approximately 7.5 miles. The purpose of the proposed project is to improve safety and mobility in the area and alleviate traffic congestion. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on January 29, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E. Highway 80, Mesquite, TX 75150; telephone (214) 320–4480.

8. FM 802 from FM 1847 to Old Port Isabel Road, Cameron County, Texas. The purpose of the proposed project is to improve mobility, to accommodate current and future traffic volumes by reconstructing and widening the freeway from four to six lanes, and reconstructing and widening bike lanes and sidewalks. The proposed project length is approximately 1.85 miles. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on January 29, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Pharr District Office at 600 W. Expressway 83, Pharr, TX 78577; telephone (956) 702–6100.

9. FM 526 from Nola Court to IH 10; IH 10 WB frontage road from FM 526 to Normandy Street; and Normandy Street from IH 10 to Greens Bayou Street in Harris County, Texas. The project will construct bicycle and pedestrian improvements within the project area, including sidewalks and a shared use path. The project will also relocate existing storm sewers and widen existing shoulders. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on February 5, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Houston District Office located at 7600 Washington Avenue, Houston, Texas 77007; telephone (713) 802–5076.

10. SH 6 at FM 2 Intersection Improvement from 0.51 miles north of FM 2 and 0.11 miles west of SH 6 to 0.53 miles south of FM 2 and 0.11 miles east of SH 6, Grimes County, Texas. The proposed project would convert the at-grade intersection to a grade-separated intersection. This would create a typical main-lane section on SH 6 with 12 ft. travel lanes bounded by 10 ft. inside and outside shoulders; the ramps would have two 12 ft. lanes, one for dedicated left turns and the other for through traffic. The length of this project is approximately 1.4 miles. The purpose of the proposed project is to improve safety at the intersection of SH 6 with FM 2 in Grimes County. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on September 30, 2019, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Bryan District Office at 2591 North Earl Rudder Freeway, Bryan, Texas 77803–5190; telephone (979) 778–9764.

11. US 281 from 0.273 mile south of SH 186 to 0.023 mile north of FM 490, Hidalgo County, Texas. The purpose of the proposed project is to bring US 281 to current interstate highway standards between SH 186 and FM 490 to accommodate current and future traffic volumes by reconstructing, straightening, and widening US 281 with inside and outside shoulders, installation of a center concrete barrier, and constructing frontage roads to control access. The proposed project length is approximately 7.04 miles. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment approved on December 9, 2019, the Finding of No Significant Impact (FONSI) approved on December 12, 2019 and other documents in the TxDOT project file. The final environmental assessment, FONSI, and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Pharr District Office at 600 W. Expressway 83, Pharr, TX 78577; telephone (956) 702–6100.

12. FM 676 and Mile 5 from SH 107 to FM 2220, Hidalgo County, Texas. The purpose of the proposed project is to improve mobility on FM 676 and Mile 5 between SH 107 and FM 2220, to accommodate current and future traffic volumes by reconstructing and widening the facility from two to four lanes with continuous center turn lane, and constructing 10-foot shoulders and sidewalks.

The proposed project length is approximately 4.0 miles. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment approved on February 5, 2020, the Finding of No Significant Impact (FONSI) approved on February 7, 2020 and other documents in the TxDOT project file. The final environmental assessment, FONSI, and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Pharr District Office at 600 W Expressway 83, Pharr, TX 78577; telephone (956) 702–6100.

13. State Highway (SH) 105 from 10th Street in Conroe to Business 105 in Montgomery, San Jacinto, and Liberty Counties, Texas. The proposed project would widen SH 105 to the north and south to a four-lane facility with a continuous two-way turn lane of varying width. Sidewalk and bicycle accommodations along the north and south sides of SH 105 would be provided for the entire length of the facility. The proposed project includes a curb and gutter system along approximately 75 percent of the facility with open ditches along the remaining easternmost portion. The length of the project, including transitions, is approximately 20 miles. The purpose of the project is to improve safety, operational efficiency, and travel times; to accommodate growth along SH 105 within the project limits, and reduce the number of traffic accidents and fatalities. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on February 19, 2020, the Finding of No Significant Impact (FONSI) issued on February 20, 2020 and other documents in the TxDOT project file. The EA, FONSI, and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Houston District Office located at 7600 Washington Avenue, Houston, Texas 77007; telephone (713) 802–5076.

14. FM 1378 at FM 3286 Intersection Improvement in Collin County, Texas. The proposed project would improve the existing intersection at FM 1378 and FM 3286. The purpose of the proposed project is to provide congestion relief, improve traffic flow, and improve safety. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in, the Categorical Exclusion Determination issued on February 27, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E. Highway 80, Mesquite, TX 75150; telephone (214) 320–4480.

15. FM 518 from SH 288 to SH 35 in Brazoria County, Texas. The proposed project would reconstruct and widen the existing roadway from two lanes in each direction to three lanes in each direction. The typical section would include two 12-foot-wide travel lanes and one 15-foot-wide outside travel lane

(in each direction), a typical 18-foot raised median, and 5-foot-wide sidewalks on both sides of the roadway. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on February 28, 2020 with the Finding of No Significant Impact (FONSI) issued on March 03, 2020, and other documents in the TxDOT project file. The EA, FONSI and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Houston District Office 7600 Washington Avenue, Houston Texas 77007; telephone (713) 802–5076. The EA and FONSI can also be viewed and downloaded from the following website: *https://www.txdot.gov/inside-txdot/projects/studies/houston/fm518-sh288-to-sh35.html.*

16. I–10 from SH 46 to FM 3351 in Bexar and Kendall Counties, Texas. The project adds one general-purpose lane and one High Occupancy Vehicle (HOV) lane in each direction of I–10 from FM 3351 (Ralph Fair Rd) to SH 46. The project is approximately 10.07 miles in length. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on February 27, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT San Antonio District Office at 4615 NW Loop 410, San Antonio, TX 78229; telephone (210) 615–5839.

17. SH 42 from IH 20 to US 80, in Gregg County, Texas. The proposed project would construct a four-lane highway with two 12-foot travel lanes in each direction, a center left-turn lane, shoulders, and sidewalks in portions of the project. The proposed project length is approximately 5.9 miles in length. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment approved on March 12, 2020, the Finding of No Significant Impact approved on March 12, 2020, and other documents in the TxDOT project file. The Final Environmental Assessment and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Tyler District Office at 2709 W Front St., Tyler, TX 75702; telephone (903) 510–9100.

18. IH 20 Roscoe Interchange Improvement, from East of CR 608 to West of Loop 170, in Nolan County, Texas. The project is located at the interchange of IH 20 and US 84 between the towns of Roscoe and Sweetwater. The proposed project would flatten the sharp curve at the interchange, and construct and reconstruct direct connectors and associated ramps. The existing two-way frontage roads would be reconstructed but would remain two-way. The project is approximately one mile in length and would address operational and safety concerns at the interchange. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the approved Categorical Exclusion Determination issued on April 1, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Abilene District Office at 4250 North Clack, Abilene, TX. 79601; (325) 676–6817.

19. IH 10 from 0.54 miles east of FM 3247 to the Sabine River Bridge in Orange County, Texas. The proposed project would be reconstructed from four, 12-foot wide travel lanes (two in each direction) with variable width inside and outside shoulders to six 12-foot wide travel lanes with 10-foot wide inside shoulders and 10-foot wide outside shoulders. A concrete median barrier would separate the eastbound/westbound travel lanes. The project also includes widening the existing I–10 Adam's Bayou bridges to provide the additional 12-foot wide travel lane in each direction. The length of the proposed project is 4.84 miles with all work being completed in existing right of way. The purpose of the proposed project is to improve the safety and ensure mobility of the traveling public by widening the interstate highway and replacing the structurally deficient Sabine River Relief bridge. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on September 6, 2019, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Beaumont District Office at 8350 Eastex Freeway, Beaumont, Texas 77708; telephone (409) 898–5745.

20. IH 20 at SH 31 Interchange from 0.7 miles west of US 259 to 1.3 miles east of SH 31, in Gregg County, Texas. The proposed project would improve safety by removing the existing left exits and to address conflict points along SH 31 by reconstructing the IH 20 and SH 31 interchange. The proposed project length is approximately 1.5 miles in length. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on April 3, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Tyler District Office at 2709 W Front St., Tyler, TX 75702; telephone (903) 510–9100.

21. El Dora Road from FM 3362 (Jackson Road) to Veterans Boulevard (I Road), in Hidalgo County, Texas. The proposed project would widen the roadway from two to four lanes, with continuous left turn lane, adding right turn lanes, and including sidewalks. The proposed project length is approximately 2.3 miles. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on April 10, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Pharr District Office at 600 W Expressway 83, Pharr, TX 78577; telephone (956) 702–6100.

22. Watson Road from FM 2790/Somerset Road to 0.62 mile east of Somerset Road in Bexar County, Texas. The proposed project would expand the existing two-lane roadway to four lanes, provide a shared use path for pedestrians and bicycles, make storm-water drainage improvements, and construct a roundabout at the intersection of Verano Parkway and Watson Road. The project is approximately 0.62 miles in length. The purpose of the proposed project is to improve mobility and safety in the project area. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination issued on April 15, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT San Antonio District Office at 4615 NW Loop 410, San Antonio, TX 78229; telephone (210) 615–5839.

23. Galm Road Phase III From FM 471 to Government Canyon State Natural Area in Bexar County, Texas. The proposed project would consist of the reconstruction and widening of Galm Road from a two- lane section to a four-lane curbed urban arterial section with continuous sidewalks in each direction. The project is approximately 1.6 miles in length. The purpose of the proposed project is to improve mobility and safety in the project area. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in, the Categorical Exclusion Determination issued on April 21, 2020, and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT San Antonio District Office at 4615 NW Loop 410, San Antonio, TX 78229; telephone (210) 615–5839.

24. FM 2642 from FM 35 to SH 66 in Hunt County, Texas. The proposed project would convert FM 2642 to a four-lane urban divided roadway with curb/gutter and sidewalks. The proposed project length is approximately 2.37 miles in length. The purpose of the proposed project is to improve safety and mobility. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Categorical Exclusion Determination approved on June 12, 2020 and other documents in the TxDOT project file. The Categorical Exclusion Determination and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Paris District Office at 1365 N Main St., Paris, TX 75460; telephone (903) 737–9213.

25. FM 664 From IH 35 East to IH 45 in Ellis County, Texas. The proposed project would widen and reconstruct FM 664 within the proposed limits from a two/four-lane undivided rural roadway to a six-lane rural, curb and gutter facility with a raised median. A 2.5-mile bypass south of the City of Ferris would be constructed on new location to connect to a new interchange at IH 45. Major interchanges are proposed at IH 35 and IH 45. The length of the proposed project is approximately 9.96 miles. The purpose of the proposed project is to alleviate traffic congestion, accommodate future traffic, and improve mobility and safety. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on January 23, 2020, Finding of No Significant Impact (FONSI) issued on March 25, 2020 and other documents in the TxDOT project file. The EA and other documents are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E Highway 80, Mesquite, TX 75150; telephone: (214) 320–4480.

26. IH 20 from Lawson Road to East of CR 138 (Wilson Road) in Dallas and Kaufman Counties, Texas. The proposed project would include constructing continuous one-way frontage road lanes in each direction, reconfiguring the ramps from a ''diamond'' configuration to an ''X'' configuration at each interchange, and adding auxiliary lanes on the mainlanes. The length of the proposed project is approximately 20.39 miles. The purpose of the proposed project is to address local policies, improve mobility, accommodate future traffic demand, enhance access, and improve safety. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on April 10, 2020, Finding of No Significant Impact (FONSI) issued on April 10, 2020 and other documents in the TxDOT project file. The EA and other documents are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E Highway 80, Mesquite, TX 75150; telephone: (214) 320–4480.

27. US 80 from IH 30 to FM 460 in Dallas and Kaufman Counties, Texas. The proposed project would consist of reconstruction and widening to four mainlanes in each direction and reconstruction of the frontage roads, ramps, and bridge structures within the US 80 project limits. The length of the proposed project is approximately 11 miles. The purpose of the proposed project is to meet current roadway design standards, reduce congestion, improve mobility, and meet anticipated traffic demand with the project limits. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on April 13, 2020, Finding of No Significant Impact (FONSI) issued on April 13, 2020 and other documents in the TxDOT project file. The EA and other documents are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E Highway 80, Mesquite, TX 75150; telephone: (214) 320–4480.

28. IH 35W from Dale Earnhardt Way to IH 35E/IH 35W Interchange in Denton County, Texas. The proposed project would construct continuous one-way, two lane urban northbound and southbound frontage roads along IH 35W, entrance and exit ramp reversals, flipping three interchanges so that IH 35W mainlanes cross over these streets; constructing a new interchange for future Denton Creek Road and expanding the Cleveland Gibbs Road, FM 407, Robson Ranch Road/Crawford Road, and proposed Loop 288/Vintage Road interchanges. The length of the proposed project is approximately 12.3 miles. The purpose of the proposed project is to improve safety and provide access to adjacent lands. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on June 30, 2020, Finding of No Significant Impact (FONSI) issued on June 30, 2020 and other documents in the TxDOT project file. The EA and other documents are available by contacting TxDOT at the address provided above or the TxDOT Dallas District Office at 4777 E Highway 80, Mesquite, TX 75150; telephone: (214) 320–4480.

29. Nolana Loop from FM 1426 to FM 88, in Hidalgo County, Texas. The proposed project would widen, reconstruct, and extend the existing roadway. The proposed project length is approximately 9.8 miles. The purpose of the project is to improve mobility and connectivity. The actions by TxDOT and Federal agencies and the laws under which such actions were taken are described in the Final Environmental Assessment (EA) approved on May 1, 2020, Finding of No Significant Impact (FONSI) issued on July 20, 2020 and other documents in the TxDOT project file. The final environmental assessment, FONSI, and other documents in the TxDOT project file are available by contacting TxDOT at the address provided above or the TxDOT Pharr District Office at 600 W Expressway 83, Pharr, TX 78577; telephone (956) 702–6100.

Authority: 23 U.S.C. 139(l)(1).

Issued on: July 29, 2020.

Michael T. Leary,

Director, Planning and Program Development, Federal Highway Administration.

[FR Doc. 2020–16935 Filed 8–7–20; 8:45 am]

BILLING CODE 4910–22–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Notice of Final Federal Agency Actions on Proposed Highway in California

AGENCY: Federal Highway Administration (FHWA), Department of Transportation (DOT).

ACTION: Notice of Limitation on Claims for Judicial Review of Actions by the California Department of Transportation (Caltrans).

SUMMARY: The FHWA, on behalf of Caltrans, is issuing this notice to announce actions taken by Caltrans, that are final. The actions relate to a proposed highway project, replacement of Shoemaker Bridge at State Route 710 at the Los Angeles River in the City of Long Beach, County of Los Angeles, State of California. Those actions grant licenses, permits, and approvals for the project.

DATES: By this notice, the FHWA, on behalf of Caltrans, is advising the public of final agency actions subject to 23 U.S.C. 139*(l)(1).* A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before January 7, 2021. If the Federal law that authorizes judicial review of a claim provides a time period of less than 150 days for filing such a claim, then that short time period applies.

FOR FURTHER INFORMATION CONTACT: For Caltrans: Jason Roach, Senior Environmental Planner/Branch Chief, Caltrans Division of Environmental Planning, District 7, 100 South Main Street, Los Angeles, CA 90012. Office Hours: 8:00 a.m.–5:00 p.m., Pacific Standard Time, telephone (213) 266–3805 or email *Jason.Roach@dot.ca.gov.* For FHWA, contact David Tedrick at (916) 498–5024 or email *david.tedrick@dot.gov.*

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, FHWA assigned, and Caltrans assumed, environmental responsibilities for this project pursuant to 23 U.S.C. 327. Notice is hereby given that Caltrans has taken final agency actions subject to 23 U.S.C. 139*(l)(1)* by issuing licenses, permits, and approvals for the following highway project in the State of California.

Caltrans in corporation with the City of Long Beach proposes a bridge replacement project at State Route 710 (SR–710). The proposed Project would reconstruct Shoemaker Bridge and realign local street connections to the bridge. The proposed Project limits serve as logical termini, or rational end points for transportation improvements and is sufficient to evaluate the environmental impacts of the connections that originate in downtown Long Beach at the south end and terminate at the bridge's connection to SR–710 at the north end because the Project purpose is to modernize the structure and geometrics of the bridge and to facilitate planned projects adjacent to the bridge.

The actions by the Federal agencies, and the laws under which such actions were taken, are described in the Final Environmental Impact Report (FEIR)/Finding of No Significant Impact (FONSI) for the project, issued on June 30, 2020, and in other documents in Caltrans' project records. The FEIR/FONSI and other project records are available by contact Caltrans at the addresses provided above. The Caltrans FEIR/FONSI and other project records can be viewed and downloaded at the following City of Long Beach Shoemaker Bridge Project website.

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. Council on Environmental Quality Regulations
2. National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 et seq.
3. Federal-Aid Highway Act of 1970, 23 U.S.C. 109
4. MAP–21, the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112–141)
5. Clean Air Act Amendments of 1990 (CAAA)
6. Clean Water Act of 1977 and 1987
7. Federal Water Pollution Control Act of 1972 (see Clean Water Act of 1977 & 1987)
8. Federal Land Policy and Management Act of 1976 (Paleontological Resources)
9. Noise Control Act of 1972
10. Safe Drinking Water Act of 1944, as amended
11. Endangered Species Act of 1973
12. Executive Order 11990, Protection of Wetlands
13. Executive Order 13112, Invasive Species
14. Executive Order 13186, Migratory Birds
15. Fish and Wildlife Coordination Act of 1934, as amended
16. Migratory Bird Treaty Act
17. Water Bank Act Wetlands Mitigation Banks, ISTEA 1991, Sections 1006–1007
18. Wildflowers, Surface Transportation and Uniform Relocation Act of 1987 Section 130
19. Coastal Zone Management Act of 1972
20. Coastal Zone Management Act Reauthorization Amendments of 1990
21. Executive Order 11988, Floodplain Management
22. Department of Transportation (DOT) Executive Order 5650.2—Floodplain Management and Protection (April 23, 1979)
23. Rivers and Harbors Appropriation Act of 1899, Sections 9 and 10
24. Title VI of the Civil Rights Act of 1964, as amended
25. Executive Order 12898, Federal Actions to Address Environmental Justice and Low-Income Populations

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 139*(l)(1)*

Issued on: August 4, 2020.

Rodney Whitfield,

Director, Financial Services, Federal Highway Administration, California Division.

[FR Doc. 2020–17451 Filed 8–7–20; 8:45 am]

BILLING CODE 4910–RY–P

DEPARTMENT OF THE TREASURY

Financial Crimes Enforcement Network

Agency Information Collection Activities; Proposed Renewal; Comment Request; Renewal Without Change of Information Collection Requirements in Connection With the Imposition of a Special Measure Concerning Bank of Dandong as a Financial Institution of Primary Money Laundering Concern

AGENCY: Financial Crimes Enforcement Network (FinCEN), Treasury.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork and respondent burden, FinCEN invites comment on a renewal, without change, to information collection requirements finalized on November 8, 2017, imposing a special measure with respect to Bank of Dandong as a financial institution of primary money laundering concern. This request for comments is being made pursuant to the Paperwork Reduction Act of 1995.

DATES: Written comments are welcome and must be received on or before October 9, 2020.

ADDRESSES: Comments may be submitted by any of the following methods:

• *Federal E-rulemaking Portal: http://www.regulations.gov*. Follow the .instructions for submitting comments. Refer to Docket Number FINCEN–2020–0008 and the specific Office of Management and Budget (OMB) control number 1506–0072.

• *Mail:* Global Investigations Division, Financial Crimes Enforcement Network, P.O. Box 39, Vienna, VA 22183. Refer to Docket Number FINCEN–2020–0008 and OMB control number 1506–0072.

Please submit comments by one method only. All comments submitted in response to this notice will become a matter of public record. Therefore, you should submit only information that you wish to make publicly available.

FOR FURTHER INFORMATION CONTACT: The FinCEN Regulatory Support Section at *FRC@fincen.gov*.

SUPPLEMENTARY INFORMATION:

I. Statutory and Regulatory Provisions

The legislative framework generally referred to as the Bank Secrecy Act (BSA) consists of the Currency and Financial Transactions Reporting Act of 1970, as amended by the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act) (Pub. L. 107–56) and other legislation. The BSA is codified at 12 U.S.C. 1829b, 12 U.S.C. 1951–1959, 31 U.S.C. 5311–5314 and 5316–5332, and notes thereto, with implementing regulations at 31 CFR Chapter X.

The BSA authorizes the Secretary of the Treasury, *inter alia,* to require financial institutions to keep records and file reports that are determined to have a high degree of usefulness in criminal, tax, and regulatory matters, or in the conduct of intelligence or counter-intelligence activities, to protect against international terrorism, and to implement counter-money laundering programs and compliance procedures.[1] Regulations implementing Title II of the BSA appear at 31 CFR Chapter X. The authority of the Secretary to administer the BSA has been delegated to the Director of FinCEN.[2]

Section 311 of the USA PATRIOT Act (Section 311), codified at 31 U.S.C. 5318A, grants FinCEN the authority, upon finding that reasonable grounds exist for concluding that a foreign jurisdiction, financial institution, class of transactions, or type of account is of primary money laundering concern, to require domestic financial institutions and financial agencies to take certain special measures to address the primary money laundering concern.

FinCEN may impose one or more of these special measures in order to protect the U.S. financial system from these threats. Special measures one through four, codified at 31 U.S.C. 5318A(b)(1)–(b)(4), impose additional recordkeeping, information collection, and reporting requirements on covered U.S. financial institutions. The fifth special measure, codified at 31 U.S.C. 5318A(b)(5), allows FinCEN to impose prohibitions or conditions on the opening or maintenance of certain correspondent accounts.

FinCEN issued a final rule on November 8, 2017, imposing the fifth special measure to prohibit covered U.S. financial institutions from opening or maintaining a correspondent account for, or on behalf of, Bank of Dandong.[3] The rule further requires covered U.S. financial institutions to apply due diligence to their correspondent accounts that is reasonably designed to guard against their use by Bank of Dandong.[4] It also requires covered institutions to apply special due diligence to their foreign correspondent accounts that is reasonably designed to guard against their use to process transactions involving Bank of Dandong.

The notification requirement in 31 CFR 1010.660(b)(3)(i)(A) is intended to enhance cooperation from correspondent account holders in preventing Bank of Dandong from accessing to the U.S. financial system. The information financial institutions are required to maintain pursuant to section 1010.660(b)(4)(i) will be used by federal agencies and certain self-regulatory organizations to verify compliance by covered financial institutions with the provisions of 31 CFR 1010.660.

II. Paperwork Reduction Act of 1995 (PRA)[5]

Title: Information Collection Requirements in Connection With the Imposition of a Special Measure Against Bank of Dandong, a Financial Institution of Primary Money Laundering Concern.

OMB Control Number: 1506–0072.

Abstract: FinCEN is issuing this notice to renew the OMB control number for the imposition of a special measure against Bank of Dandong as a financial institution of primary money laundering concern pursuant to the authority contained in 31 U.S.C. 5318A. See 31 CFR 1010.660.

Type of Review: Renewal without change of a currently approved collection.

Affected Public: Businesses or other for-profit institutions, and not-for-profit institutions.

Frequency: One time notification. See 31 CFR 1010.660(b)(3)(i)(A) and 1010.660(b)(4)(i).

Estimated Number of Respondents: 17,063.[6]

Estimated Time per Respondent: 1 hour.

Estimated Total Annual Burden: 17,063 hours.

When the final rule was published on November 8, 2017, the number of financial institutions affected by the rule was estimated at 5,000. FinCEN has since revised the estimated number of affected financial institutions upward to account for all domestic financial institutions that could potentially maintain correspondent accounts for foreign banks, and recognizing that, under the final rule, covered financial institutions are required to apply due diligence to their correspondent accounts that is reasonably designed to guard against their indirect use by Bank

[1] Section 358 of the USA PATRIOT Act added language expanding the scope of the BSA to intelligence or counter-intelligence activities to protect against international terrorism.

[2] Treasury Order 180–01 (January 14, 2020).

[3] 82 FR 51765.

[4] *See* 31 CFR 1010.660.

[5] Public Law 104–13, 44 U.S.C. 3506(c)(2)(A).

[6] The Estimated Number of Respondents is based on the sum of the following numbers:

• 5,306 banks—according to the Federal Deposit Insurance Corporation (FDIC) there were 5,103 FDIC-insured banks as of March 31, 2020. According to the Federal Reserve Board (FRB), there were 203 other entities supervised by the FRB, as of June 16, 2020, that fall within the definition of bank. (20 Edge Act institutions, 15 agreement corporations, and 168 foreign banking organizations).

• 5,236 federally-insured credit unions—according to the National Credit Union Administration there were 5,236 federally regulated credit unions as of December 31, 2019.

• 125 privately-insured credit unions—according to the General Accountability Office, *PRIVATE DEPOSIT INSURANCE: Credit Unions Largely Complied with Disclosure Rules, but Rules Should Be Clarified,* March 2017.

• 1,104 introducing brokers—according to the Commodities and Futures Trading Commission (CFTC), there were 1,104 introducing brokers in commodities registered with the CFTC as of March 31, 2020.

• 61 futures commission merchants—according to the CFTC, there were 61 futures commission merchants registered with the CFTC, as of March 31, 2020.

• 3,640 broker/dealers—according to the Securities and Exchange Commission (SEC), there were 3,640 brokers or dealers in securities registered with the SEC, as of March 31, 2020.

• 1,591 mutual funds—according to the SEC, there were approximately 1,591 mutual funds in 2017, based on forms filed with the SEC. The SEC provided the estimate to FinCEN for the last renewal of OMB control number 1506–0033 (83 FR 46012, Sept. 11, 2018). FinCEN was unable to obtain a more recent estimate.

of Dandong. There are approximately 17,063 such financial institutions doing business in the United States. As noted, this revision should not have a significant impact on a substantial number of small entities.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number assigned by OMB. Records required to be retained under the BSA must be retained for five years. Generally, information collected pursuant to the BSA is confidential but may be shared as provided by law with regulatory and law enforcement authorities.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Michael Mosier,

Deputy Director, Financial Crimes Enforcement Network.

[FR Doc. 2020–17408 Filed 8–7–20; 8:45 am]

BILLING CODE 4810–02–P

FEDERAL REGISTER

Vol. 85 Monday,

No. 154 August 10, 2020

Part II

Department of the Interior

Fish and Wildlife Service

50 Part 17

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

Endangered and Threatened Wildlife; 12-Month Finding on a Petition To Identify the Northwest Atlantic Leatherback Turtle as a Distinct Population Segment and List It as Threatened Under the Endangered Species Act; Final Rule

DEPARTMENT OF INTERIOR

Fish and Wildlife Service

50 Part 17

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

[Docket No. 200717–0190]

RIN 0648–XF748

Endangered and Threatened Wildlife; 12-Month Finding on a Petition To Identify the Northwest Atlantic Leatherback Turtle as a Distinct Population Segment and List It as Threatened Under the Endangered Species Act

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce; U.S. Fish and Wildlife Service (USFWS), Interior.

ACTION: Notification of 12-month petition finding.

SUMMARY: We, NMFS and USFWS, announce a 12-month finding on a petition to identify the Northwest Atlantic population of the leatherback turtle (*Dermochelys coriacea*) as a distinct population segment (DPS) and list it as threatened under the Endangered Species Act (ESA). In response to the petition, we completed a comprehensive status review of the species, which also constitutes the 5-year review of the species, to determine potential DPSs following the Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the ESA and to perform extinction risk analyses. Based on the best scientific and commercial data available, including the Status Review Report, and after taking into account efforts made to protect the species, we conclude that seven populations would meet the discreteness and significance criteria for recognition as DPSs, including the Northwest Atlantic population. However, even if we were to list them separately, all seven DPSs would meet the definition for endangered species (*i.e.,* they are in danger of extinction throughout all or a significant portion of their range). The species is already listed as endangered throughout its range. We have determined that the listing of DPSs is not warranted, and therefore we do not propose any changes to the existing global listing.

DATES: This finding was made on August 10, 2020.

ADDRESSES: The Status Review Report are available on NMFS' website at *https://www.fisheries.noaa.gov/species/leatherback-turtle.*

FOR FURTHER INFORMATION CONTACT: Jennifer Schultz, NMFS Office of Protected Resources, (301) 427–8443, *jennifer.schultz@noaa.gov.* Persons who use a Telecommunications Device for the Deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339, 24 hours a day and 7 days a week.

SUPPLEMENTARY INFORMATION:

Background

The leatherback turtle species as a whole was listed as an endangered species (one determined to be threatened with worldwide extinction) (35 FR 8491; June 2, 1970), under the Endangered Species Conservation Act of 1969, the precursor statute to the ESA (16 U.S.C. 1531 *et seq.*). When the ESA was enacted in 1973, it specifically provided for continuity with the lists previously in effect under the Endangered Species Conservation Act. Section 4(c)(3) of the ESA directed that species on the lists of endangered foreign or native wildlife at the time the ESA took effect would be deemed ''endangered species'' under the ESA without interruption. *See* 39 FR 1444 (January 9, 1974) (explaining transition provisions); 39 FR 1158, 1172 (January 4, 1974) (setting out the final list of ''endangered foreign wildlife,'' including ''Turtle, Leatherback'' at 50 CFR 17.11).

On September 20, 2017, the Blue Water Fishermen's Association petitioned NMFS and USFWS (together, the Services) to identify the Northwest (NW) Atlantic leatherback turtle population as a DPS and to list it as threatened under the ESA. On December 6, 2017, NMFS published a ''positive'' 90-day finding in the **Federal Register** (82 FR 57565) announcing the determination that the petition presented substantial information indicating that the petitioned action may be warranted. At that time, NMFS also solicited information on leatherback turtles and announced that it would commence, jointly with USFWS, a status review of the entire listed species, pursuant to ESA section 4(b)(3)(A) and 50 CFR 424.14. The resulting Status Review Report includes all information used to evaluate the petitioned actions and explains the process followed by the Status Review Team (*i.e.,* the Team). The following summarizes that information; for additional details, please see the Status Review Report (see **ADDRESSES**).

ESA Statutory, Regulatory, and Policy Provisions and Evaluation Framework

Under the ESA, the term ''species'' includes any subspecies of fish or wildlife or plants, and any DPS of any vertebrate fish or wildlife which interbreeds when mature (16 U.S.C. 1532(16)). The Services adopted a joint policy clarifying their interpretation of the phrase ''distinct population segment'' for the purposes of listing, delisting, and reclassifying a species under the ESA (''Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act,'' 61 FR 4722 (Feb. 7, 1996; ''DPS Policy''). The DPS Policy stipulates two elements that must be considered: (1) Discreteness of the population segment in relation to the remainder of the species to which it belongs; and (2) the significance of the population segment to the species to which it belongs.

Section 3 of the ESA defines an endangered species as any species which is in danger of extinction throughout all or a significant portion of its range and a threatened species as one which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(6) and (20)). Thus, we interpret an ''endangered species'' to be one that is presently in danger of extinction. A ''threatened species,'' on the other hand, is not presently in danger of extinction, but is likely to become so within the foreseeable future (that is, within a specified later time). In other words, the primary statutory difference between a threatened and endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or within the foreseeable future (threatened). The ESA uses the term ''foreseeable future'' to refer to the time over which identified threats are likely to impact the biological status of the species. The duration of the ''foreseeable future'' in any circumstance is inherently fact-specific and depends on the particular kinds of threats, the life-history characteristics, and the specific habitat requirements for the species under consideration. The existence of threats to a species and the species' response to such threats are not, in general, equally predictable or foreseeable. Hence, in some cases, the ability to foresee a threat to a species is greater than the ability to foresee the species' exact response, or the timeframe of such a response, to that

threat. For purposes of making this 12-month finding, the relevant consideration is whether the species' population response (*i.e.,* abundance, productivity, spatial distribution, diversity) is foreseeable, not merely whether the emergence of a threat is foreseeable. The foreseeable future extends only as far as we are able to reliably predict the species' population response to threats.

Pursuant to the ESA and our implementing regulations, we determine whether a species is threatened or endangered based on any one or a combination of the following ESA section 4(a)(1) factors or threats (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)):

1. The present or threatened destruction, modification, or curtailment of its habitat or range;
2. Overutilization for commercial, recreational, scientific, or educational purposes;
3. Disease or predation;
4. Inadequacy of existing regulatory mechanisms; or
5. Other natural or manmade factors affecting its continued existence, which could include but are not limited to: Fisheries bycatch; vessel strikes; pollution (including marine debris and plastics, contaminants, oil and gas activities, and derelict fishing gear); natural disasters; climate change; and oceanographic regime shifts.

Section 4(b)(1)(A) of the ESA requires us to make listing determinations based solely on the best scientific and commercial data available after conducting a review of the status of the species and after taking into account efforts being made by any State or foreign nation or political subdivision thereof to protect the species' existence (16 U.S.C. 1533(b)(1)(A)).

Approach to the Status Review

The Services convened a team of NMFS and USFWS biologists (*i.e.,* the Team) to gather and review the best available scientific and commercial data on the leatherback turtle, assess the discreteness and significance of populations by applying the DPS Policy, evaluate the extinction risk of any population segments that meet the DPS criteria, and document all findings in a report (*i.e.,* the Status Review Report). Although the petitioner requested evaluation only of the NW Atlantic leatherback population, we instructed the Team to perform a comprehensive status review to identify and evaluate the status of all potential DPSs.

The Team compiled information on leatherback turtle life history, biology, ecology, demographic factors, and threats. This included the information received in the petition and in response to the **Federal Register** request associated with the 90-day finding (82 FR 57565; December 6, 2017). The Team also requested leatherback nesting data from beach monitoring programs. To evaluate recent abundance and trends, unpublished nesting beach monitoring datasets were often the best available data (*i.e.,* most recent and relevant). The Team assessed these data in terms of standardization (*i.e.,* the use of standardized methodology), consistency (*i.e.,* consecutive seasonal data collection), and duration of data collection (*i.e.,* the number of years that data were collected). When evaluating threats, peer-reviewed information, specifically primary research with large sample sizes and long-term sampling duration, was often the best available data. In some locations, reports from governments or non-governmental organizations and expert opinion constituted the best available information. The Team also addressed the source and magnitude of any uncertainty and the impact on its conclusions.

The Team evaluated the discreteness and significance of each population and provided their evaluation of whether each population would meet the criteria of the DPS Policy. The DPS Policy states that a population of a vertebrate species may be considered discrete if it satisfies one of the following conditions: (1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors (quantitative measures of genetic or morphological discontinuity may provide evidence of this separation); or (2) it is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the ESA (61 FR 4722, February 7, 1996). While the Team used the term ''DPS'' in describing and discussing populations that they concluded meet the requirements of discreteness and significance, it is important to note that the DPS term is used throughout the Status Review Report for ease of reference only. A DPS is formally recognized under the ESA only upon a listing action by the Services, and the Services cannot delegate authority to take formal listing actions to status review teams. The information compiled by the Team must be reviewed by the Services, which retain responsibility for making the listing determination after complying with all the requirements of Section 4 of the ESA and considering agency policies. Because we ultimately conclude for the reasons discussed in this finding that it would not be appropriate to disaggregate the existing global listing into DPSs, references in the Status Review Report (and in this finding when we are reviewing the information presented by the Team) must be understood as references to potential or hypothetical DPSs only.

The Team evaluated significance in terms of the importance of the population segment to the overall welfare of the species, such as: (1) Persistence of the population segment in an unusual or unique ecological setting; (2) evidence that loss of the population segment would result in a significant gap in the range of the taxon; (3) evidence that the DPS represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; or (4) evidence that the population segment differs markedly from other populations of the species in its genetic characteristics.

For each population segment that the Team determined would meet the criteria of the DPS Policy (which the Team and we refer to as a ''DPS'' for ease of reference), the Team performed an extinction risk analysis, which involved the evaluation of demographic factors and threats. Demographic factors reflect the impact that operative threats have had on the species. In some cases those threats or the impacts from the threats are continuing in nature. The demographic factors included abundance, productivity, spatial distribution, and diversity. Because sea turtles spend the majority of their lives at sea, where they are spread across vast distances, it is difficult to estimate total abundance. However, the number of nesting females can be counted directly, or estimated indirectly by counting the number of nests on beaches, during a nesting season. Females nest more than once in a season (*i.e.,* clutch frequency, which is the average number of nests per season) and do not nest every season (*i.e.,* remigration interval, which is the average number of years between successive nesting seasons). To calculate the index of nesting female abundance at a nesting beach, the Team summed the total number of nests over the most recent remigration interval (*i.e.,* a run-sum) and divided this number by the clutch frequency. The Team performed these calculations only if available data were recent (*i.e.,* last year of the remigration interval occurred in 2014 or more recently), consistent

(*i.e.,* seasonal data collected for each year of the remigration interval), and collected in a standardized manner (*i.e.,* data collection methods remained the same over the remigration interval), as further detailed in the Status Review Report. To provide a total index of nesting female abundance for each DPS, we summed the indices of nesting female abundance for all monitored beaches used by that DPS. The total index of nesting female abundance for each DPS is an index (rather than a census) because not all nesting beaches met these criteria. However, the nesting beaches that were not included were generally unmonitored or not recently monitored because they host few nesting females. Even where data were not sufficient to allow for a calculation of the index of nesting female abundance, the Team provided all available data to ensure the analysis would be as robust as possible.

The Team evaluated the productivity for each DPS by evaluating nesting trends (through trend analyses or bar graphs) and productivity metrics. Where available data allowed it, they estimated the long-term trend for individual beaches using a Bayesian state-space model of stochastic exponential population growth (Boyd *et al.* 2017), where the rate parameter describes the annual percent change in observed nest counts (or female counts where applicable) over the period of data collection. This is further explained in the Status Review Report. To reflect current trends over approximately three remigration intervals, the criteria for trend analyses were as follows: Nesting data (*i.e.,* nest or nesting female counts) consistently collected over nine or more years in a standardized manner (for that site), with the most recent data collection in 2014 or later and with a minimum average number of nests of 50 annually. The Team reported the median trend, along with the standard deviation (sd), 95 percent credible interval (CI), and an ''f statistic'' which is the proportion of the posterior distribution with the same sign as the median (*i.e.,* the confidence that the trend is positive or negative). When the data did not meet the criteria for performing trend analyses, the Team provided bar graphs and/or historical data in the Status Review Report. Based on the trend analysis (where possible) and the best available historical data, the Team characterized the nesting trend for each DPS as decreasing, stable, or increasing. The Team also evaluated the following productivity metrics (if available): Average size of nesting female; nesting female survivorship; remigration interval; clutch size; clutch frequency; internesting interval; incubation period; hatching success (the proportion of eggs in a nest that produce live hatchlings); and sex ratio. Each of these metrics contributes to the growth rate, or reproductive potential, of the population.

For each DPS, the Team evaluated spatial distribution, which included the number and location of nesting beaches and foraging areas, as well as spatial structure (*i.e.,* whether the DPS exists as a single population or several subpopulations connected by metapopulation dynamics). The Team also evaluated diversity, which like spatial distribution, is a measure of resilience. In general, diverse populations with broad spatial distributions and metapopulation dynamics are more resilient to threats and environmental changes than less diverse populations with narrow distributions.

For each DPS, the Team next evaluated each of the ESA Section 4(a)(1) factors (or ''threats'') as listed above (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)). For each threat, the Team used the best available information to describe the threat, identify which life stages are affected, and describe the impact to the DPS with as much specificity as the best available information allowed to link the threat to the demographic factor it affected. The best available data often allow only for qualitative assessment. For each DPS, the Team identified the primary threat(s) to its continued existence, as well as other threats. The Team considered the impact of each threat individually, with the primary threat(s) given the greatest weight, and all threats cumulatively, to determine the extinction risk. To assess confidence in the extinction risk determination, the Team identified any sources of uncertainty and the impact of uncertainty on the conclusions. They analyzed all threats assuming the DPS had lost ESA protections going forward because a DPS would not receive such protections if it was not listed under the ESA. For example, a DPS would not have benefits of section 9 take prohibitions or section 7 consultations on actions that may affect the DPS.

The Team performed an extinction risk assessment for each of the seven DPSs by evaluating the demographic factors and threats, as described above. Then, the Team voted, based on the best available data, on whether the extinction risk of each DPS was high, moderate, or low, following the definitions included in NMFS' internal guidance document, ''Guidance on Responding to Petitions and Conducting Status Reviews under the Endangered Species Act, Section II'' (*i.e.,* NMFS' Guidance; November 9, 2017) and in the Status Review Report.

After the Team completed its draft Status Review Report, the Services met to review and discuss that document and conservation efforts. The Services based our status determinations of the DPSs on the best scientific and commercial data available (as compiled and reflected in the Status Review Report) and after taking into account efforts by States and foreign nation, or any political subdivision thereof, to protect the species as mandated by the statute.

DPS Analysis

The following is a summary of the DPS analysis conducted by the Team. For a detailed description of the Team's analyses of discreteness and significance, please see the Status Review Report. As a starting point, the Team considered seven leatherback populations that were previously identified as regional management units (RMUs) by Wallace *et al.* (2010) and recognized as subpopulations under the International Union for Conservation of Nature (IUCN) Red List (*https://www.iucnredlist.org/species/6494/43526147*). The Team found that seven leatherback populations met the discreteness and significance criteria per the DPS Policy and identified the following potential DPSs: Northwest (NW) Atlantic; Southwest (SW) Atlantic; Southeast (SE) Atlantic; SW Indian; Northeast (NE) Indian; West Pacific; and East Pacific.

Discreteness

The Team evaluated all populations for discreteness and determined that each showed marked separation from the others as a consequence of behavioral and physical factors. Behavioral factors, especially returning to waters off a turtle's natal beach to breed, have prevented interbreeding, resulting in reproductive isolation, as indicated by genetic discontinuity.

Although some populations use the same foraging areas, tagging and telemetry studies also demonstrate the discreteness of the populations at nesting beaches. Physical factors, such as land masses, ocean currents, and other oceanographic features, have established and reinforced barriers to gene flow among the seven populations.

Genetic data provide the most compelling evidence for discreteness among the seven populations. The most recent and comprehensive global analysis of published and unpublished

mitochondrial deoxynucleic acid (mtDNA) sequence data (*i.e.,* 28 haplotypes, which are unique sequences of mtDNA) evaluated samples collected from 21 nesting sites representing key regions from all ocean basins (Dutton *et al.* 2007; Dutton *et al.* 2013; Shanker *et al.* 2011; Dutton and Shanker 2015); analyzing the evolutionary relationship of these data revealed three distinct haplogroups (*i.e.,* similar haplotypes that cluster together, relative to other haplotypes) that are geographically segregated across the Atlantic, Indian, and Pacific Oceans (Dutton, unpublished data; NMFS and USFWS 2020). Early mtDNA analyses indicated strong genetic discontinuity, globally (F_{ST} = 0.415, P <0.001) and within ocean basins (F_{ST} = 0.203 to 0.253, P <0.001; Dutton *et al.* 1999). Wallace *et al.* (2010) combined these and other genetic data with nesting, flipper tagging, and satellite telemetry data to identify seven leatherback RMUs, which provided the starting point for our identification of discrete populations.

From this starting point, the Team then evaluated more recent genetic data. Subsequent genetic analyses confirmed genetic discontinuity among the NW, SW, and SE Atlantic populations (Wallace *et al.* 2010; Dutton *et al.* 2013; Carreras *et al.* 2013; Molfetti *et al.* 2013; Vargas *et al.* 2017). Elevated genetic differentiation at nuclear DNA (F_{ST} = 0.211 − 0.86) indicates that males, like females, likely return to the waters off their natal beaches to mate and that male-mediated gene flow may not be as pronounced as previously thought (Dutton *et al.* 2013; see Jensen *et al.* 2013). Nuclear (F_{ST} >0.126, P <0.001; Dutton *et al.* 2013) and mtDNA (F_{ST} >0.061, P = 0.05 − 0.001; Dutton *et al.* 2013; F_{ST} >0.061, P <0.01; Vargas *et al.* 2017) analyses indicate genetic discontinuity between the Atlantic populations and the SW Indian population. Preliminary mtDNA results for leatherback turtles nesting at Little Andaman Island, India (Shanker *et al.* 2011; Dutton and Shanker 2015), indicate that this population is closely related to the extinct Malaysian population, with which it shares common haplotypes. It is markedly different from the South African nesting population, as well as those in the West Pacific population (Dutton *et al.* 2007, 2013 and unpublished). Samples from extant and extirpated nesting aggregations of the NE Indian population (Shanker *et al.* 2011; Dutton and Shanker 2015; Dutton *et al.* unpublished data) are genetically differentiated from the SW Indian population (F_{ST} = 0.415, P <0.003; Dutton *et al.* 1999) and the West Pacific population (X_2 = 49.346, P = 0.002; Dutton *et al.* 2007). There is genetic discontinuity between the West and East Pacific populations, as demonstrated by significant genetic differentiation between the samples from Solomon Islands in the western Pacific and Mexico or Costa Rica in the eastern Pacific (F_{ST} = 0.270 and 0.331, P <0.001; Dutton *et al.* 1999). Genetic discontinuity among all seven populations provides evidence for marked separation from the others and thus discreteness of each population.

Tagging and telemetry studies confirm marked separation of the seven populations because nesting sites remain distant and isolated. Nesting females of one population have not been tracked to, or observed on, beaches used by another population, even though telemetry data indicate shared use of foraging areas by different populations.

Telemetry studies demonstrate that females nesting on NW Atlantic beaches move throughout most of the North Atlantic from the Equator to about 50° N latitude (Ferraroli *et al.* 2004; Hays *et al.* 2004; James *et al.* 2005a; James *et al.* 2005b; 2005c; Eckert 2006a; Eckert *et al.* 2006b; Hays *et al.* 2006; Doyle *et al.* 2008; Evans 2008; Dodge *et al.* 2014; Fossette *et al.* 2014; Aleksa 2017; Aleksa *et al.* 2018). Turtles originating from beaches of the NW Atlantic appear to mix at foraging areas throughout the North Atlantic Ocean (Fossette *et al.* 2014), but their movements rarely extend into waters south of the Equator. Tagging studies further support the connectivity within and among nesting beaches and foraging areas of the North Atlantic Ocean (Troëng *et al.* 2004; Bräutigam and Eckert 2006; Chacón-Chaverri and Eckert 2007; Turtle Expert Working Group (TEWG) 2007; Sönmez *et al.* 2008; Dutton *et al.* 2013b; Horrocks *et al.* 2016), but turtles tagged in the North Atlantic Ocean have never been found on nesting beaches in Brazil (SW Atlantic population) or Africa (SE Atlantic population). In the South Atlantic Ocean, post-nesting females tracked from nesting beaches in Gabon and Brazil use the same foraging areas, including waters off SW Africa, in the south equatorial Atlantic and off SE Brazil and Uruguay (Almeida *et al.* 2011; Witt *et al.* 2011). Turtles incidentally captured in fisheries off South America (Billes *et al.* 2006, López-Mendilaharsu *et al.* 2009) also demonstrate that turtles originating from the SW and SE Atlantic Ocean beaches share foraging areas. Despite such mixing at foraging areas, there is no evidence for the shared use of nesting beaches. Genetic data indicate that turtles return to their natal beaches to nest on opposite sides of the Atlantic Ocean (Dutton *et al.* 2013; Vargas *et al.* 2017), and no tag recoveries contradict these data.

In the Indian Ocean, telemetry studies have been conducted at South African nesting beaches in the SW Indian Ocean (Hughes *et al.* 1998; Luschi *et al.* 2006; Robinson *et al.* 2016) and at Andaman Islands nesting beaches in the NE Indian Ocean (Namboothri *et al.* 2012; Swaminathan *et al.* 2019). South African nesting females showed diverse movements that were highly influenced by complex oceanographic currents and features that lead them to foraging destinations in the South Atlantic Ocean, SW Indian Ocean, and Mozambique Channel (Hughes *et al.* 1998, Luschi *et al.* 2006, Robinson *et al.* 2016). About half of the 10 post-nesting females tagged at the Andaman Islands moved westward: Two individuals reached the Mozambique Channel; the other half moved southeastward, past the Indonesian islands of Sumatra and Java, with one leatherback reaching an apparent foraging ground off NW Australia before transmissions stopped (Namboothri *et al.* 2012; Swaminathan *et al.* 2019). Despite overlap in one foraging area (*i.e.,* reaching the Mozambique Channel), tagging data do not indicate movement between the distant nesting beaches.

Within the Pacific Ocean, nearly all turtles tracked from East Pacific nesting beaches moved southward across the Equator to forage in open-ocean waters of the SE Pacific Ocean or in the coastal waters of Central America, Peru, and Chile. The movements of post-nesting females from the West Pacific Ocean are dependent on the season in which they nest, with winter-nesting females predominantly tracked into the Southern Hemisphere and summer-nesting females foraging in diverse coastal and oceanic ecosystems throughout the northern Indo-Pacific region (Benson *et al.* 2011). Telemetry data indicate little or no overlap with foraging destinations utilized by nesting females of the East and West Pacific populations (Bailey *et al.* 2012; Benson *et al.* 2011). However, a genetic study of bycaught turtles off the coast of Chile and Peru indicated that 15 percent of leatherback turtles originated from West Pacific nesting beaches (Donoso and Dutton 2010), suggesting that foraging overlap may be more prevalent than estimated by telemetry data. Still, there is no genetic evidence for contemporary interbreeding between the two populations (Dutton *et al.* 2007), and telemetry and tagging data do not indicate movement between the distant

nesting beaches. Thus, flipper tagging and satellite telemetry data support the marked separation, and thus discreteness, of the seven populations at their nesting beaches.

Physical factors likely shape and reinforce the behavior patterns that result in reproductive isolation. Though the species has a global range, with foraging areas extending into high latitudes, nesting mainly occurs on tropical or subtropical beaches. Post-hatchling dispersal is determined by the ocean currents they encounter off nesting beaches. While adults move throughout tropical and temperate waters irrespective of ocean currents, both males and females return to the waters off their natal nesting beach to mate. This natal homing is somewhat flexible, (Dutton *et al.* 2013; Jensen *et al.* 2013), creating reproductive isolation only among distant nesting sites, which may also be physically separated from one another by land masses and oceanographic barriers to gene flow. For example, leatherback turtles in the Atlantic Ocean are physically separated from those in the Pacific Ocean by the Americas. Though leatherback turtles have greater cold tolerance than other sea turtles, they do not appear to venture into latitudes greater than 47° S or 71° N (Eggleston 1971; Eckert *et al.* 2012). Therefore, the low latitude and cold waters of the Cape Horn Current likely prevent movement between the Atlantic and Pacific Oceans. Within ocean basins, nesting beaches of the discrete populations are separated by long distances of uninterrupted deep water (*e.g.,* the East Pacific Barrier and the mid-Atlantic Barrier). While leatherback turtles clearly cross these open-ocean barriers to reach distant foraging areas, they do not appear to do so for nesting and breeding, but rather return to their natal region to breed and nest (Barragan *et al.* 1998; Dutton *et al.* 1999; Barragan and Dutton 2000; Dutton *et al.* 2013). Within ocean basins, currents shape post-hatchlings' movement patterns, which they may retain as adults (*e.g.,* Fossette *et al.* 2010; Benson *et al.* 2011). The NW Atlantic leatherback population appears to be physically separated from the SE and SW Atlantic populations by the current systems of the South and North Atlantic Gyres, respectively. NW Atlantic leatherback nesting beaches are adjacent to northward moving currents (*e.g.,* Gulf Stream). Leatherback hatchlings from these nesting beaches, therefore, are transported northward, remaining in the North Atlantic Ocean. Those that survive return to their nesting beaches as adults, completing their life stages within the North Atlantic (Fossette *et al.* 2010; Chambault *et al.* 2017). The SE and SW Atlantic populations are similarly retained in the South Atlantic Ocean by the South Atlantic Gyre and the Benguela Current, which flows northward along the SE coast of Africa, restricting movement into the Indian Ocean. Within the Indian Ocean, the Somali Current runs between the nesting beaches of the SW and NE Indian populations. The NE Indian and West Pacific populations likely became isolated as a result of exposed land barriers between Indonesia, New Guinea, and the Philippines as a result of low sea levels within the past 6,000 years (Barber *et al.* 2000). Seasonal monsoons may also play a contemporary role by altering current directions and hatchling dispersal patterns (Benson *et al.* 2011; Gaspar *et al.* 2012). Thus, physical factors have likely helped to shape, or at least reinforce, the reproductive isolation among distant nesting beaches.

Based on these data, the Team concluded that the seven populations demonstrate discreteness, or marked separation from each other, due to behavioral and physical factors. These are the NW Atlantic, SW Atlantic, SE Atlantic, SW Indian, NE Indian, West Pacific, and East Pacific populations.

Significance

Each of the discrete populations is significant to the species because the loss of any one would result in a significant gap (*i.e.,* a half or quarter of an ocean basin) in the range of the species. Several populations also persist in unique ecological settings. Each population likely possesses unique genetic characteristics and local adaptations as a result of thousands of years of reproductive isolation, but none have yet been identified because all genetic studies have involved neutral markers. Therefore, the Team did not rely on evidence of unique genetic characteristics and local adaptations for its significance finding.

A loss of the NW Atlantic population would result in a gap (*i.e.,* the entire North Atlantic Ocean) of the nesting and foraging range of the species. If the NW Atlantic population were extirpated, it is unlikely that leatherback turtles from other populations would recolonize the North Atlantic Ocean in an ecological time frame (*i.e.,* tens to hundreds of years), leaving a significant gap in the range of the species. Extirpation of this population would also significantly reduce the genetic diversity of the species, as reflected by the possession of several unique haplotypes. Leatherback turtles of the NW Atlantic Ocean also occur in a unique ecological setting; this is the only DPS that regularly forages at high latitudes. Sightings have been documented as far north as Norway and Iceland (Brongersma 1972; Goff and Lien 1988; Carriol and Vader 2002; McMahon and Hayes 2006; Eckert *et al.* 2012). Such high latitude foraging is likely facilitated by the warm Gulf Stream, which meets cold water currents to create highly productive foraging areas. The Team concluded that the NW Atlantic population is biologically significant to the species.

In the SW Atlantic Ocean, leatherback turtles only nest in a small area of the coastline of Brazil. All other nesting in South America occurs above the Equator or on the Pacific Coast. Therefore, the loss of this population would result in a gap of the nesting range of the species (*i.e.,* the SW Atlantic coast). Although SE Atlantic leatherback turtles forage off the coasts of Brazil, Argentina, and Uruguay, they do not breed there. Rather, they return to the waters off western Africa to mate (Vargas *et al.* 2017). Therefore, if the SW Atlantic population were extirpated, it is unlikely that leatherback turtles from other populations would recolonize this region, leaving a significant gap in the nesting range of the species. The extirpation of this population would also significantly reduce the genetic diversity of the species, as reflected by the possession of unique haplotypes and high genetic diversity, despite the small population size (Vargas *et al.* 2017). The SW Atlantic population is biologically significant to the species.

Leatherback turtles of the SE Atlantic population nest in West Africa and forage in the South Atlantic Ocean. This population is much more abundant than the SW Atlantic population, which also forages in the South Atlantic Ocean. Therefore, the loss of this population would result in a gap of the nesting range of the species (*i.e.,* western Africa) and a significant reduction in the abundance of leatherback turtles foraging throughout the South Atlantic Ocean. The extirpation of this population would also significantly reduce the genetic diversity of the species, as reflected by the possession of unique haplotypes. The Team concluded that the SE Atlantic population is biologically significant to the species.

In the SW Indian Ocean, leatherback turtles only nest in a small area along the South African and Mozambican coastlines. No other leatherback turtles nest in eastern Africa or in other areas throughout the entire western Indian Ocean. Therefore, the loss of this population would result in a gap of the

nesting range of the species (*i.e.,* the SW Indian Ocean). The SW Indian population also occurs in a unique ecological setting: It is the only population to nest on temperate beaches. The warm Agulhas Current, adjacent to the nesting beaches, likely facilitates their high-latitude nesting. The Team concluded that the SW Indian population is biologically significant to the species.

Leatherback turtles nest in small numbers in the NE Indian Ocean. These nesting sites are separated from other Indian Ocean nesting sites by at least 5,000 km. Although western Pacific nesting sites are closer, males and females return to the waters off their natal beaches to breed, preventing interbreeding among NE Indian and West Pacific populations. Therefore, the loss of this population would result in a gap of the nesting range of the species (*i.e.,* the NE Indian Ocean). The extirpation of this population would also significantly reduce the genetic diversity of the species, as reflected by the possession of unique haplotypes. The Team concluded that the NE Indian population is biologically significant to the species.

West Pacific leatherback turtles nest in small numbers primarily in four nations of the West Pacific Ocean. These nesting sites are separated from East Pacific nesting sites by over 10,000 km. Though NE Indian nesting sites are closer in distance, male and female philopatry prevents interbreeding. Therefore, the loss of this population would result in a gap of the nesting range of the species (*i.e.,* the West Pacific Ocean). The loss of this population would also result in a gap of the foraging range of the species (*i.e.,* the North Pacific Ocean). The extirpation of this population would also significantly reduce the genetic diversity of the species, as reflected by the possession of unique haplotypes. The West Pacific population is ecologically unique in two ways: It is the only population to forage in both hemispheres; and it nests year-round, with nesting peaks in the summer and winter. The Team concluded that the West Pacific population is biologically significant to the species.

Leatherback turtles nesting on eastern Pacific coastlines also forage in the East Pacific Ocean. A loss of this population would result in a gap of the nesting range of the species (*i.e.,* the East Pacific Ocean). Though West Pacific leatherback turtles may forage off the coasts of Peru and Chile, they do not breed there (Donoso and Dutton 2010). Therefore, if the East Pacific population were extirpated, it is unlikely that leatherback turtles from other populations would recolonize this region, leaving a significant gap in the nesting range of the species. The extirpation of this population would also significantly reduce the genetic diversity of the species, as the population possess several unique haplotypes. The East Pacific population is unique in having the smallest nesting female size, clutch size, and egg size of all populations, possibly reflecting unique foraging conditions that are subject to oceanographic regime shifts (*e.g.,* the El Niño Southern Oscillation, or ENSO). The Team concluded that the East Pacific population is biologically significant to the species.

DPS Summary

The Team found that seven populations met the definition for discreteness. These populations are markedly separated as a result of the behavioral factors of movement (as demonstrated by satellite telemetry and flipper tagging studies) and philopatry, which has led to reproductive isolation (as demonstrated by genetic discontinuity). They are also physically separated by land masses, oceanographic features, and currents. The Team found these seven populations to be significant to the species because the loss of any one of them would result in a significant gap in the range of the species as well as a significant loss of genetic diversity, reducing the evolutionary potential of the species. Some populations also occur in a unique ecological setting. Thus, after reviewing the best available information, the Team identified the following populations as potential DPSs: NW Atlantic, SW Atlantic, SE Atlantic, SW Indian, NE Indian, West Pacific, and East Pacific. The Team defined the potential DPSs as leatherback turtles originating from nesting beaches within the boundaries for each DPS. The range of each DPS, which also includes foraging areas, thus extends beyond the nesting boundaries for most DPSs, and may overlap extensively with the range of another DPS. The boundaries are based on the best available genetic, telemetry, and observational data. When such data were not available, the Team used information on possible barriers to gene flow, such as oceanographic features. For ease of use, the Team applied political boundaries when this did not conflict with biological or oceanographic data. Additional information on the boundaries is available in the following sections, which summarize the extinction risk analysis for each DPS, and in the Status Review Report.

NW Atlantic DPS

The Team defined the NW Atlantic DPS as leatherback turtles originating from the NW Atlantic Ocean, south of 71° N, east of the Americas, and west of Europe and northern Africa; the southern boundary is a diagonal line between 5.377° S, 35.321° W and 16.063° N, 16.51° W. The northern boundary reflects a straight latitudinal line based on the northernmost documented occurrence of leatherback turtles (Brongersma 1972; Goff and Lien 1988; Carriol and Vader 2002; McMahon and Hayes 2006; Eckert *et al.* 2012). The southern boundary is a diagonal line between the elbow of Brazil, where the Brazilian current begins and likely restricts the nesting range of this DPS, and the northern boundary of Senegal. The boundary between Senegal and Mauritania was chosen because the SE Atlantic DPS does not appear to nest above this boundary (Fretey *et al.* 2007).

The range of this DPS (*i.e.,* all areas of occurrence) extends throughout the North Atlantic Ocean, including the Caribbean Sea, Gulf of Mexico (GOM), and Mediterranean Sea. Available data indicate that the NW Atlantic DPS occurs (at varying levels of frequency) in the waters of the following nations or territories: Albania, Algeria, Anguilla, Antigua and Barbuda, Aruba, Azores, Bahamas, Barbados, Belize, Bermuda, Bonaire, Bosnia and Herzegovina, Brazil, British Virgin Islands, Canada, Cape Verde, Cayman Islands, Colombia, Costa Rica, Croatia, Cuba, Curaçao, Cyprus, Denmark, Dominica, Dominican Republic, Egypt, France, French Guiana, Greece, Greenland, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Iceland, Ireland, Israel, Italy, Jamaica, Lebanon, Libya, Madeira, Malta, Martinique, Mauritania, Mexico, Montenegro, Montserrat, Morocco, Netherlands Antilles, Nicaragua, Norway, Panama, Portugal, Slovenia, Spain, St. Barthelemy, St. Eustatius, St. Kitts and Nevis, St. Lucia, St. Maarten, St. Pierre and Miquelon, St. Martin, St. Vincent and the Grenadines, Suriname, Sweden, Syria, Trinidad and Tobago, Tunisia, Turkey, Turks and Caicos Islands, United Kingdom, United States (including Puerto Rico and the U.S. Virgin Islands (USVI), Venezuela, and Western Sahara.

All nesting in this DPS occurs in the NW Atlantic Ocean, concentrated from the southeast United States throughout the Wider Caribbean Region (Dow *et al.* 2007). Leatherback nesting in the NW Atlantic can be grouped into several broad geographical areas, including the

U.S. mainland (primarily Florida), North Caribbean (including USVI and Puerto Rico), West Caribbean (Honduras to Colombia), and Southern Caribbean/Guianas (Venezuela to French Guiana; TEWG 2007). The largest nesting aggregations occur in Trinidad, French Guiana, and Panama. The northern-most confirmed nesting occurs in North Carolina, but there has been a crawl recorded as far north as Assateague Island National Seashore, Maryland (Rabon *et al.* 2003). No nesting occurs in the Mediterranean Sea (Casale and Margaritoulis 2010).

Nesting occurs on unobstructed, high-energy beaches with either a deep water oceanic approach or a shallow water approach with mud banks, but without coral or rock formations (TEWG 2007). The main characteristics of leatherback nesting beaches include coarse-grained sand; steep, sloping littoral zone; obstacle-free approach; proximity to deep water; and oceanic currents along the coast (Hendrickson and Balasingam 1966 in Eckert *et al.* 2015). During the nesting season, adult females and males inhabit the waters off nesting beaches. During a nesting season, females generally stay within about 100 km of their nesting beaches, remaining close to the coast on the continental shelf, and engaging in shallow dives (Eckert *et al.* 2012). Intra-seasonal movement of greater than 100 km also occurs, especially between French Guiana and Suriname (Fossette *et al.* 2007; Georges *et al.* 2007), Panama and Costa Rica (Chacón-Chaverri and Eckert 2007), and among Caribbean nesting beaches, including those on Trinidad (Brautigam and Eckert 2006; Georges *et al.* 2007; Horrocks *et al.* 2016). Adult males migrate from temperate foraging areas in the North Atlantic Ocean to waters off nesting beaches, typically arriving before the nesting season and remaining for the majority of the season (James *et al.* 2005b; Doyle *et al.* 2008; Dodge *et al.* 2014).

Foraging areas of the NW Atlantic DPS include coastal and pelagic waters of the North Atlantic Ocean (Eckert *et al.* 2012; Saba 2013; Shillinger and Bailey 2015). These waters include the GOM, North Central Atlantic Ocean, northwestern Atlantic shelf waters of the United States and Canada, waters along the southeastern U.S. coast, the Mediterranean Sea, and the northeastern Atlantic shelf waters of Europe and northwestern Africa (TEWG 2007). Some post-nesting females also remain in tropical waters to forage (Fossette *et al.* 2010). This DPS is mostly commonly associated with open-ocean and coastal shelf foraging areas off Nova Scotia (Canada), northeastern United States, GOM, northwestern Europe, and northwestern Africa (James *et al.* 2005a, 2006b, 2007; Eckert 2006; Eckert *et al.* 2006; Fossette *et al.* 2010a; Fossette *et al.* 2010b; Dodge *et al.* 2014; Stewart *et al.* 2016; Aleksa *et al.* 2018). Fossette *et al.* (2014) analyzed available satellite telemetry data from 1995 to 2010 on post-nesting females (n = 93) as well as males (n = 4), females (n = 8), and a juvenile (n = 1) from foraging grounds throughout the Atlantic Ocean. They found widespread use of the North Atlantic Ocean (Fossette *et al.* 2014). High-use areas mainly occurred in the central (25 to 50° N, 50 to 30° W) and eastern Atlantic Ocean, in particular in the waters offshore Western Europe, around Cape Verde (year-round) and the Azores (October to March; Fossette *et al.* 2014). Fossette *et al.* (2014) found that seasonal high-use areas also occurred along the eastern U.S. coast (April to June and October to December) and off Canada (July to December). The GOM is also a high-use foraging area, with a peak in the northeast GOM during August and September (Aleksa *et al.* 2018). Overall, leatherback turtles of the North Atlantic population appear to have a diverse array of foraging habitat available.

Abundance

The total index of nesting female abundance for the NW Atlantic DPS is 20,659 females. The nesting beaches with the greatest abundance have been included in this index, and most beaches with an unquantified number of nests likely host few nesting females. We based this index on 24 nesting aggregations in 10 nations: Trinidad and Tobago (n = 11,324), French Guiana (n = 2,519), Panama (n = 2,251), United States (n = 1,694), Costa Rica (n = 1,306), Suriname (n = 698), Grenada (n = 499), Venezuela (n = 215), Guyana (n = 76), and Nicaragua (n = 10). With the possible exception of Colombia, our total index does not include 31 unquantified but likely small nesting aggregations for which data are not available. It also does not include outdated data published by Dow *et al.* (2007), which includes binned crawls, categorized as less than 25, 25 to 100, 100 to 500, 500 to 1000, or unknown abundance. Crawls or emergences (measured as females or tracks on beaches) include both successful egg-laying and unsuccessful nesting, so the number of crawls represents approximately two to 10 times the number of nests (Dow *et al.* 2007). Because the Dow *et al.* data, which are more than 10 years old and do not provide the number of actual nests, may not be representative of recent nesting trends, we did not include them in our total index. To calculate the indices of nesting female abundance, we added the number of nests over the last 3 years (representing the most recent remigration interval; Eckert *et al.* 2012) and divided by the clutch frequency (site-specific values or, when such values were not available, the average of the site-specific values, *i.e.,* 5.5 clutches per season).

Our total index of nesting female abundance is based on the best available data for this DPS. It is the most robust estimate of nesting females at this time because it only includes available nesting data from recently and consistently monitored nesting beaches. Our total index does not include data from beaches where we were unable to quantify the number of nesting females, either due to the lack of recent or available nesting data or because only crawl data were reported (often on smaller nesting beaches). Scattered nesting may occur on beaches throughout the region, but because these beaches are not monitored, or have not been recently monitored, recent data are not available.

Nesting in the NW Atlantic DPS is characterized by many small nesting beaches. Large nesting aggregations are rare; only about 10 leatherback nesting beaches in the Wider Caribbean Region (about two percent of the DPS's total nesting sites) host more than 1,000 crawls annually (Dow Piniak and Eckert 2011). Only one site, Grande Riviere in Trinidad, hosts more than 5,000 nesting females, representing 29 percent of the total index of nesting female abundance. Relatively large nesting aggregations are also found in Matura (Trinidad), Chiriqui Beach (Panama), and Cayenne and Remire Montjoly (French Guiana). In contrast, most known nesting beaches support a small nesting female abundance; 71 percent of the total nesting sites record annual crawls of less than 100 (Dow Piniak and Eckert 2011). The number of nesting females is unquantified at 31 beaches (*i.e.,* the majority of nesting sites for the DPS). However, for the reasons identified above, most of those sites have small abundance levels as inferred from the numbers of crawls estimated by Dow *et al.* (2007). Therefore, our total index of nesting female abundance represents the most robust estimate allowed by the best available data and includes the majority of nesting females because the largest nesting aggregations were included. The data regarding additional nesting aggregations are not sufficiently recent, specific, or reliable for inclusion, and the contribution of these nesting

aggregations to the total index is expected to be small.

Our total index of nesting female abundance is similar in comparison to other published estimates. TEWG (2007) estimated the abundance of NW Atlantic leatherback turtles using nesting data from 2004 and 2005. At that time, the number of adult females (equating to total index of nesting female abundance in our analysis) was estimated to be approximately 18,700 (range 10,000 to 31,000). While a wide range was provided, the point estimate in TEWG (2007) is similar to, albeit slightly lower than, our total index of 20,659 nesting females. The most recent, published IUCN Red List assessment for the NW Atlantic Ocean subpopulation estimated a total of 20,000 mature individuals (The NW Atlantic Working Group 2019). Our total index, which only includes nesting females, exceeds their estimate, likely due to our use of a 3-year remigration interval, which has increased at some locations in recent years (*e.g.,* 4.5 years at St. Croix; K.R. Stewart, The Ocean Foundation and C. Lombard, USFWS, pers. comm., 2019).

We conclude that the total index of nesting females for the NW Atlantic DPS is 20,659 females. The nesting beaches with the greatest abundance have been included in our total index, and most beaches with an unquantified number of nests likely host few nesting females. Current nesting female abundance is not at a level where stochastic or environmental changes would have catastrophic impacts, but the abundance at several nesting sites with previously high density has declined drastically. However, as we discuss below, a declining nest trend and several existing threats will likely continue to reduce this abundance.

Productivity

The NW Atlantic DPS exhibits decreasing nest trends at nesting aggregations with the greatest indices of nesting female abundance. Though some nesting aggregations indicate increasing trends, most of the largest ones demonstrate declining nest trends. We evaluated nest trends by using nest count data consistently collected using a standardized approach for at least 9 years, with the last year of data in 2014 or more recently and with an average of more than 50 nests annually. When data did not meet these criteria, we evaluated bar graphs provided in the Status Review Report to consider all available data. Thus, these data are representative of the DPS because they include the largest nesting aggregations. With the possible exception of Colombia, nesting aggregations for which data are not available are likely small. Significant declines have been observed at nesting beaches with the greatest historical or current nesting female abundance, most notably in Trinidad and Tobago (Grande Riviere, Fishing Pond, and Tobago), Suriname, French Guiana (Awala-Yalimapo), Florida, and Costa Rica (Tortuguero). Therefore, these nest trends represent the best available data for this DPS.

In Trinidad and Tobago, trends in annual nest counts were largely negative between 2009 and 2017, the years for which data were available. For Trinidad, we analyzed trends for three separately monitored beaches, including Grande Riviere, Matura, and Fishing Pond. The long-term trend was negative for Grande Riviere (median = −6.9 percent; sd = 17.4 percent; 95 percent CI = −43.8 to 26.9 percent; f = 0.682; mean annual nests = 13,272), positive for Matura (median = 1.8 percent; sd = 15.1 percent; 95 percent CI = −29.2 to 33.0 percent; f = 0.561; mean annual nests = 7,359), and negative for Fishing Pond (median = −19.3 percent; sd = 15.1 percent; 95 percent CI = −49.8 to 12.0 percent; f = 0.916; mean annual nests = 3,892). For Tobago, the median trend was −0.9 percent annually (sd = 11.3 percent; 95 percent CI = −25.0 to 21.5 percent; f = 0.540; mean annual nests = 452).

For French Guiana, we analyzed nest count data from 2002 to 2017 for Awala-Yalimapo beach in the west and data from 1999 to 2017 for Cayenne and Remire Montjoly beaches in the east. There was a steep decline at Awala-Yalimapo, with a median trend of −19.4 percent annually (sd = 12.2 percent; 95 percent CI = −43.2 to 6.0 percent; f = 0.942; mean annual nests = 3,200). In contrast to Awala-Yalimapo, nest counts at Cayenne and Remire Montjoly increased by 2.8 percent annually (sd = 12.9 percent; 95 percent CI = −24.9 to 27.9 percent; f = 0.596; mean annual nests = 3,498). In addition, leatherback nesting occurred on remote beaches in western French Guiana until 2013 (*e.g.,* a high of 4670 nests was found in 2003, with 1,270 mean annual nests from 2002 to 2013), but we were unable to analyze trends because monitoring on these remote beaches has been reduced since approximately 2010 due to significant beach erosion and the disappearance of some previously monitored beaches.

Suriname, Grenada, and Panama each had a single time series sufficient for trend analysis. For Suriname, we combined datasets from two beaches, Galibi and Braamspunt, which were monitored between 2001 and 2017. Total nests in Suriname declined by −14.6 percent annually (sd = 9.6 percent; 95 percent CI = −36.4 to 4.5 percent; f = 0.953; mean annual nests = 4,586). In Grenada, data on the number of nesting tracks were collected on Levera beach between 2002 and 2018. There was a 7.1 percent annual increase in tracks at Levera during that period (sd = 8.7 percent; 95 percent CI = −10.5 to 25.3 percent; f = 0.827; mean annual tracks = 895). In Panama, the nest counts at Chiriqui beach increased by 0.8 percent annually (sd = 7.0 percent; 95 percent CI = −14.1 to 14.6 percent; f = 0.557; mean annual nests = 4,463) between 2004 and 2017.

In Costa Rica, the four beaches for which we had sufficient data to analyze annual nest count trends mostly exhibited declining trends. Tortuguero experienced the steepest decrease, with a median trend of −10.9 percent annually (sd = 4.2 percent; 95 percent CI = −19.5 to 2.2 percent) for data collected between 1995 and 2017. Nest counts decreased by −3.8 percent annually at Pacuare beach (sd = 9.3 percent; 95 percent CI = −22.6 to 16.9 percent) between 2004 and 2017, but increased by 1.8 percent annually (sd = 6.0 percent; 95 percent CI = −10.8 to 14.2 percent) at the nearby Pacuare Nature Reserve between 1991 and 2017. Nest counts at Estacion la Tortuga deceased slightly, with a median trend of −0.5 percent annually (sd = 7.0 percent; 95 percent CI = −15.7 to 13.1 percent) between 2002 and 2017.

For the United States, we analyzed annual nest count trends for Florida (statewide data collected between 2008 and 2017), three beaches in Puerto Rico, including Culebra (1984 to 2017), Luquillo-Fajardo (1996 to 2017), and Maunabo (1999 to 2017), and Sandy Point National Wildlife Refuge in St. Croix, USVI (1982 to 2017). The median trend for Florida was a decline of −2.1 percent annually (sd = 13.0 percent; 95 percent CI = −28.3 to 25.5 percent; f = 0.582; mean annual nests = 1,288). Culebra nests decreased by −3.7 percent annually (sd = 5.3 percent; 95 percent CI = −14.9 to 6.8 percent; f = 0.791; mean annual nests = 153), while nests increased by 15.9 percent annually at Luquillo-Fajardo (sd = 5.5 percent; 95 percent CI = −7.1 to 15.3 percent; f = 0.805; mean annual nests = 283) and by 7.7 percent annually at Maunabo (sd = 4.9 percent; 95 percent CI = −2.7 to 17.4 percent; f = 0.945; mean annual nests = 161). In St. Croix, nests increased by 1.7 percent annually (sd = 4.6 percent; 95 percent CI = −7.8 to 10.7 percent; f = 0.660; mean annual nests = 399).

These trend data are similar to other recent findings, adding further

confidence in declining trends at multiple large nesting aggregations. Because of concerns about declining nest counts throughout the region, the National Fish and Wildlife Foundation (NFWF) convened a NW Atlantic Leatherback Working Group (*i.e.,* the Working Group) to assess recent nesting data and complete a region-wide trend analysis (NW Atlantic Leatherback Working Group 2018). The trend analyses conducted by the Working Group used leatherback nesting data from 23 sites from 14 different nations with at least 10 years of data with consistent within-site methodology, analyzing data for three time periods: 1990 to 2017, 1998 to 2017, and 2008 to 2017. Our approach to trend analyses was similar to that used by the Working Group in that both approaches involved Bayesian analyses of data meeting set criteria. However, the Team decided against aggregating the data over the DPS due to incongruity of data collection methods, collection dates and duration, and reporting. Despite these differences, the overall conclusion was the same—an overall declining nest trend.

The Working Group found that regional, abundance-weighted trends were negative for all three time periods and became more negative in the more recent time series (NW Atlantic Leatherback Working Group 2018). Specifically, overall nesting trends decreased at −4.21 percent annually from 1990 to 2017 and at −5.37 percent annually from 1998 to 2017, with the most notable decrease (−9.32 percent annually) occurring during the most recent time frame of 2008 to 2017. While site-level trends showed variation within and among sites and across the time periods, overall the sites also reflected the same regional pattern: More negative trends were apparent during the most recent time frame. Seven sites had significant positive nesting trends from 1990 to 2017, but no sites exhibited significant positive trends from 2008 to 2017. The significant decline observed at Awala-Yalimapo, French Guiana (−12.95 percent annually from 1990 to 2017, −19.05 percent annually from 1998 to 2017, and −31.26 percent annually from 2008 to 2017), drove the regional results, but similar significant declines were found at other nesting beaches for the longer time period, including: St. Kitts and Nevis (−12.43 percent annually), Tortuguero, Costa Rica (−10.42 percent annually), Suriname (−5.14 percent annually), and Culebra, Puerto Rico (−4.61 percent annually). It should be noted that the other nesting beach in French Guiana (Cayenne) demonstrated an increasing trend (7.44 percent annually from 1990 to 2017 and 8.19 percent annually from 1998 to 2017). However, it exhibited a decreasing trend (−14.21 percent annually) from 2008 to 2017. While nesting increased over time at Cayenne, this increase has apparently not resulted from females shifting from Awala-Yalimapo, as turtles that nest at Cayenne are genetically distinct (Molfetti *et al.* 2013) and females tagged in Awala-Yalimapo are not seen in Cayenne or vice versa (NW Atlantic Leatherback Working Group 2018).

These modeling results demonstrate that there has been a decline in NW Atlantic nesting from 1990 to 2017, with the most significant decreases occurring from 2008 to 2017. Some nesting beaches demonstrated positive trends for the longer time period. However, none showed significant increases over the most recent time period. The cause for the decline is uncertain, but the Working Group identified anthropogenic sources (*e.g.,* fisheries bycatch), habitat losses, and changes in life history parameters (such as remigration interval) as potential drivers of the regional decline. While these results were taken into consideration by the Team when evaluating the extinction risk of the NW Atlantic DPS, the Team also performed its own trend analysis of the data provided to the Team so that the trends were calculated in a manner consistent with other DPSs. Regardless, both trend analyses conclude that the NW Atlantic DPS is experiencing a significant decline in nesting.

In-water abundance studies of leatherback turtles are rare. Archibald and James (2016) assessed the relative abundance of turtles at a foraging area off Nova Scotia, Canada, from 2002 to 2015. This study evaluated opportunistic sightings per unit effort and found a mean density of 9.8 turtles per 100 km^2, representing the highest in-water density of leatherback turtles reported to date. Archibald and James (2016) concluded that the relative abundance of foraging leatherback turtles off Canada exhibited high inter-annual variability but, overall, showed a stable trend from 2002 to 2015. The authors reported that (at that time) these results were consistent with the stable or, in some cases, increasing trends reported for contributing NW Atlantic nesting beaches over the last decade (Dutton *et al.* 2005; Girondot *et al.* 2007; Fossette *et al.* 2008; McGowan *et al.* 2008; Stewart *et al.* 2011; Rivas *et al.* 2015). While there were no indications of a decreasing trend, the results should be interpreted with caution because of the small study area, opportunistic data collection, availability bias variance, and lack of understanding of the relative density outside the study area (Archibald and James 2016).

Despite the declining trend in nesting, productivity parameters for the DPS are similar to the species' averages (though some may be declining, as we discuss below). While there is some variation, most productivity parameters are relatively consistent throughout the DPS. The overall survival rate for nesting females is relatively high at 85 percent (Pfaller *et al.* 2018), with mean estimates of 0.70 to 0.99 in French Guiana (Rivalan *et al.* 2005, 2008), 0.89 in St. Croix (Dutton *et al.* 2005), and 0.89 to 0.96 on the Atlantic coast of Florida (Stewart *et al.* 2007, 2014). Remigration intervals range from 1 to 11 years (Schulz 1975; Boulon *et al.* 1996; Chevalier and Girondot 1998; Hilterman and Goverse 2007; Eckert *et al.* 2012; Stewart *et al.* 2014; Rivas *et al.* 2016; Garner *et al.* 2017). In St. Croix and St. Kitts, the median remigration interval appears to be increasing (4.5 years; K.R. Stewart, The Ocean Foundation and C. Lombard, USFWS, pers. 2019; K.M. Stewart, Ross University School of Veterinary Medicine and St. Kitts Sea Turtle Monitoring Network, pers. comm., 2019). Averaging all available data, the mean remigration interval for the DPS is 2.7 years, rounded to 3 years for use in our calculation of the index of nesting female abundance. Average clutch frequency per nesting season ranges from 3.6 to 8.3 throughout the region, with an overall mean of 5.5 nests per season, interspersed with 9 to 10 day internesting intervals (Eckert *et al.* 2015; Garner *et al.* 2017). Recent records indicate that nesting females deposit 80 to 88 eggs per clutch. However, an early study by Carr and Ogren (1959) reported only 67 eggs per clutch. Hatching success is highly variable for nests that remain *in situ,* even for those that are viable and do not experience significant inundation or predation, with estimates as low as 8.9 percent in Costa Rica (Troëng *et al.* 2007) and 10.6 percent in Suriname (Hilterman and Goverse 2007) and as high as 93.4 percent in Florida (Perrault *et al.* 2012). Overall, hatching success is estimated at approximately 50 percent (Eckert *et al.* 2012). Hatchling sex ratios often exhibit a female bias, but less so than for other sea turtle species, with estimated production of anywhere from 30 to 100 percent females in Suriname, Tobago, Colombia, and Costa Rica (Mrosovsky *et al.* 1984; Dutton *et al.* 1985; Godfrey *et al.* 1996; Leslie *et al.* 1996; Mickelson and

Downie 2010; Patiño-Martínez *et al.* 2012). However, the proportion of females documented in foraging individuals and strandings ranges from 57 to 70 percent (Murphy *et al.* 2006; James *et al.* 2007; TEWG 2007), and the ratio of females to males during an individual breeding season is thought to be closer to 1:1 (Stewart and Dutton 2014).

We conclude that the DPS exhibits a declining nest trend. In addition, there are indications of decreased productivity within the DPS. In St. Croix, one of the most thoroughly monitored nesting beaches in this DPS, the data from 1981 to 2010 indicate that hatching success and clutch frequency are declining and remigration intervals are increasing (Garner *et al.* 2017). Overall, we have a high degree of confidence in the decreasing nest trend and productivity metrics for this DPS, due to the large amount of data available from the largest nesting aggregations. We acknowledge that data are not available from all nesting beaches, but the data that we have relied upon is the best available and meets established standards. The declining trends reflect reduced nesting female abundance. In addition, longer remigration intervals and/or reduced clutch frequencies may play a role in this decline. The decline reflects a reduction in productivity that places the DPS at risk given the magnitude and duration of the decreasing trend.

Spatial Distribution

The DPS has a broad spatial distribution for both foraging and nesting. There is significant genetic population structure, with subpopulations connected via various levels of gene flow and metapopulation dynamics. Tagging and telemetry studies indicate considerable mixing of leatherback turtles among nesting beaches and at multiple foraging areas throughout the North Atlantic Ocean.

Nesting is widespread throughout the NW Atlantic beaches, occurring primarily as scattered, small aggregations throughout the Wider Caribbean, but with larger concentrations of nesting activity at certain sites in Trinidad, French Guiana, Suriname, Trinidad, Colombia, Panama, Costa Rica, Puerto Rico, St. Croix, and Florida (Horrocks *et al.* 2016).

Genetic sampling in the NW Atlantic DPS has been generally extensive with good coverage of large populations in this region. However, sampling from some smaller Caribbean nesting aggregations is absent, and there are gaps in sampling or analysis for nesting sites along the coasts of South and Central America (*e.g.,* Guyana, Venezuela, Colombia, and Panama). A comprehensive survey of genetic population structure in the Atlantic Ocean included large sample sizes from five nesting populations representative of the DPS and analysis of longer mtDNA sequences in combination with an array of 17 nuclear microsatellite DNA loci (Roden and Dutton 2011; Dutton *et al.* 2013). The microsatellite data revealed fine-scale genetic differentiation among neighboring subpopulations (Dutton *et al.* 2013): Trinidad, French Guiana/Suriname, Florida, Costa Rica, and St. Croix. The mtDNA data failed to find significant differentiation between Florida and Costa Rica or between Trinidad and French Guiana/Suriname. However, Dutton *et al.* (2013) show that the mtDNA sequence variation had relatively low statistical power to detect fine scale structure compared to the microsatellite DNA loci. The mtDNA homogeneity between Costa Rica and Florida, with differentiation demonstrated at nuclear DNA loci, suggests that Costa Rica may be the source of founders for the Florida population via one or multiple recent colonization events, likely indicating historic connectivity rather than ongoing demographic connectivity (Dutton *et al.* 2013). Likewise the French Guiana/Suriname and Trinidad populations were undifferentiated with mtDNA likely indicating historic connectivity. However, microsatellite DNA reveal fine-scale genetic structure that is consistent with tagging studies demonstrating a lack of nesting female movement between the two nesting aggregations (TEWG 2007). Significant genetic differentiation has also been reported for Martinique and Guadeloupe and the mainland French Guiana rookery (Molfetti *et al.* 2013). St. Croix likely represents a broader Northern Caribbean subpopulation of the NW Atlantic population that includes multiple neighboring island nesting aggregations in the USVI and Puerto Rico. However, sampling and analysis would be required to determine extent of fine scale structuring (NMFS unpublished data; Dutton *et al.* 2013). The Costa Rica (Tortuguero and Gandoca) and Guiana (French Guiana and Suriname) nesting aggregations are distinct subpopulations based on microsatellite and mtDNA results (Dutton *et al.* 2013), but information on tag returns indicates movement of nesting females between adjacent beaches of Panama, Colombia, Venezuela and Guyana. Therefore, these nesting aggregations have ''fuzzy'' boundaries, likely a result of flexible natal homing. Nesting females use beaches up to 400 km apart between nesting seasons (Troëng *et al.* 2004; Chacón-Chaverri and Eckert 2007) and up to 463 km apart within the same nesting season (Stewart *et al.* 2014). Additional sampling of the remaining nesting sites will be required to determine the extent of fine-scale structuring within the NW Atlantic DPS. However, the available science indicates significant substructure within the DPS.

Tagging studies indicate individual movement and gene flow among nesting aggregations. This is facilitated by the species' flexible natal homing, *i.e.,* philopatry to a region, rather than a specific beach. In adjacent nesting sites in French Guiana and Suriname, five to six percent of nesting females were observed to shift from one site to the other within a season (TEWG 2007), while Schulz (1971) reported this proportion to be slightly higher at 8.5 percent. In contrast, 35 percent of nesting females in Gandoca, Costa Rica, were estimated to nest at sites other than the study site during an individual season (Chacón-Chaverri and Eckert 2007). The predisposition of nesting females to stray within a nesting season may be influenced by the proximity of alternative nesting sites within a range of approximately 200 km (Horrocks *et al.* 2016). However, even within a given nesting season, females have been observed to move as far as 369 km (Grenada), 463.5 km (Florida), and 532 km (Dominica) from their original location (Horrocks *et al.* 2016). Among nesting seasons, interchange between nesting locations also appears to be frequent and wide-ranging, with maximum distance separating two nesting sites for an individual female recorded as 1,849 km over an 8-year span (Horrocks *et al.* 2016).

Genetic studies have revealed that turtles from different nesting aggregations use the same foraging areas. Analyzing 684 longline bycatch samples from across the NW Atlantic in a mixed stock analysis and microsatellite assignment, Stewart *et al.* (2016) found that leatherback turtles from Costa Rica were caught in a higher proportion in the GOM (43 percent) compared to the Northeast Distant fishing zone, an area in the northwestern Atlantic Ocean (6 percent), while turtles from Trinidad and French Guiana comprised 54 percent of bycatch in the GOM and 93 percent in the Northeast Distant fishing zone. A study of turtles foraging off Nova Scotia, Canada, similarly assigned most (82 percent) of the 288 sampled turtles to Trinidad (n = 164) and French

Guiana (n = 72), with 15 percent (n = 44) from Costa Rica, and the remainder from St. Croix (n = 7) and Florida (n = 1; Stewart *et al.* 2013). These proportions generally represent the relative population sizes for these breeding populations. Microsatellite DNA assignment of wild captured or stranded males (n = 122) throughout the NW Atlantic and Mediterranean found that all males originated from NW Atlantic nesting aggregations (Trinidad: 55 percent, French Guiana: 31 percent, and Costa Rica: 14 percent; Roden *et al.* 2017). No turtles were identified from St. Croix or Florida. One turtle that stranded in Turkey was assigned to French Guiana, while strandings in France were assigned to Trinidad or French Guiana (Roden *et al.* 2017).

The mixing of nesting aggregations at foraging areas is also supported by several tagging and/or satellite telemetry projects, conducted in U.S. waters (Murphy *et al.* 2006; LPRC 2014; Dodge *et al.* 2014, 2015; Aleksa *et al.* 2018), Canada (James *et al.* 2005a, 2005b, 2005c, 2006b, 2007; Bond and James 2017), Atlantic Europe and Mediterranean (Doyle *et al.* 2008; Sonmez *et al.* 2008), and on nesting beaches of various nations (Hildebrand 1987; Hays *et al.* 2004; Ferraroli *et al.* 2004; Eckert 2006; Eckert *et al.* 2006; Hays *et al.* 2006; TEWG 2007; Sonmez *et al.* 2008; Evans *et al.* 2008; Fossette *et al.* 2010a, 2010b; Richardson *et al.* 2012; Bailey *et al.* 2012; Stewart *et al.* 2014; Fossette *et al.* 2014; Horrocks *et al.* 2016; Chambault *et al.* 2017). For instance, turtles from Nova Scotian foraging grounds were tracked to nesting areas off Colombia, Trinidad, Guyana, and French Guiana (Bond and James 2017). The reverse has also been demonstrated: some leatherback turtles from the western Atlantic undertake annual migrations to Canadian waters to forage (James *et al.* 2005c), exemplified by post-nesting adults tracked to the waters off Nova Scotia from a variety of nesting locations, including French Guiana and Trinidad (Fossette *et al.* 2014), Costa Rica, Panama (Evans *et al.* 2008), and Anguilla (Richardson *et al.* 2012). The eastern and western GOM also provide foraging areas for this DPS (Aleksa *et al.* 2018), as observed from tracks of post-nesting turtles from Florida (Hildebrand 1987), Costa Rica (Tortuguero, Gandoca), and Panama (Chiriquí Beach; Evans *et al.* 2008; Evans *et al.* 2012). Evans *et al.* (2008) suggested that the GOM may represent a significant foraging ground for leatherback turtles from the Caribbean coast of Central America.

High use foraging areas may be identified through available telemetry data, but the migration routes to those areas may vary. Ferraroli *et al.* (2004) tracked leatherback turtles from French Guiana and found turtles dispersed widely throughout the North Atlantic but mostly followed two dispersion patterns: (1) Moving north to the Gulf Stream area, where they started following the general ocean circulation; and (2) traveling east, swimming mostly against the North Equatorial Current. Fossette *et al.* (2014) found a relatively broad migratory corridor when turtles departed their nesting sites in French Guiana/Suriname, and their movements overlapped with turtles from Grenada and Trinidad. Fossette *et al.* (2010a, 2010b) found that turtles tracked from nesting beaches in French Guiana, Suriname, and Grenada and turtles caught in waters off Nova Scotia and Ireland displayed three distinct migration strategies: (1) Heading northwest to fertile foraging areas off the Gulf of Maine, Canada, and GOM; (2) crossing the North Atlantic Ocean to areas off western Europe and Africa; and (3) residing between northern and equatorial waters. Essentially, tagging data coupled with satellite telemetry data indicate that leatherback turtles of the NW Atlantic DPS use the entire North Atlantic Ocean for foraging and migration (TEWG 2007).

Although adults forage at multiple areas throughout the North Atlantic Ocean (Fossette *et al.* 2014), the range of juvenile leatherback turtles may be more restricted. Using an active movement model, Lalire and Gaspar (2019) found that most juveniles originating from nesting beaches in French Guiana and Suriname cross the Atlantic Ocean at mid-latitudes with north-south seasonal migrations; after several years, they reach the coasts of Europe and North Africa. Eckert (2002) reviewed the records of nearly 100 sightings of juvenile (less than 100 cm curved carapace length (CCL)) leatherback turtles and determined they are generally found in waters warmer than 26 °C, suggesting that the first portion of their life is spent in tropical and subtropical waters. After exceeding 100 cm CCL, distribution extends into cooler waters (as low as 8 °C), which is considered to be the primary habitat for the species (Eckert 2002).

The wide distribution of nesting and foraging areas likely buffers the DPS against local catastrophes or environmental changes. The fine-scale population structure, with movement of individuals and genes among nesting aggregations, indicates that the DPS has the capacity to withstand other catastrophic events.

Diversity

The NW Atlantic DPS exhibits spatial diversity, as demonstrated by insular and continental nesting, multiple diverse foraging areas, and moderate genetic diversity. The DPS nests along both continental and insular coastlines. Nesting beach habitat also shows considerable diversity, ranging from coarse-grained, sandy beaches to silty, ephemeral shorelines whose dynamics are influenced by estuarine input. The breadth and, in some cases, transiency, of suitable nesting habitat in the western North Atlantic may contribute to consistent, low-level flexibility in natal homing, both within and among reproductive seasons (Bräutigam and Eckert 2006), and this flexibility is thought to surpass that of other sea turtle species (TEWG 2007).

This DPS exhibits some temporal variation in nesting. Nesting generally begins in March or April, peaks in May or June, and ends in July or August (Eckert *et al.* 2012). In French Guiana, a second small nesting peak was documented in Awala-Yalimapo during December and January. However, the number of nests deposited during that time frame decreased from 700 in 1986/1987 to 40 in 1992/1993, and now only a small number of individuals are observed to nest during that time (Girondot *et al.* 2007). Some evidence indicates that the timing of nesting may be modulated by environmental characteristics distant from the nesting beach, such as water temperatures at foraging grounds (Neeman *et al.* 2015).

The foraging strategies are also diverse, with turtles using coastal and pelagic waters throughout the entire North Atlantic Ocean (Fossette *et al.* 2014). Foraging habitats include temperate waters of the GOM, North Central Atlantic Ocean, northwestern shelf (United States and Canada), southeastern U.S. coast, the Mediterranean Sea, and northeastern shelf (Europe; TEWG 2007). Some post-nesting females also remain in tropical waters (Fossette *et al.* 2010). Overall, leatherback turtles in the North Atlantic Ocean appear to have a diverse array of foraging habitat available.

Genetic diversity of the DPS is moderate, with six mtDNA haplotypes (Dutton *et al.* 2013). In St. Croix, a unique haplotype occurs at high frequency. The Florida and Costa Rica nesting aggregations each possess one unique, low frequency haplotype.

Based upon this information, we conclude that nesting location and habitat are diverse, providing some level of resilience against short-term spatial and temporal changes in the

environment. However, high-abundance nesting occurs only at a few locations (*e.g.,* Trinidad, French Guiana, and Panama). The foraging diversity likely provides resilience against local reductions in prey availability or catastrophic events, such as oil spills, by limiting exposure to a limited proportion of the total population. Moderate genetic diversity may provide the DPS with the raw material necessary for adapting to long-term environmental changes, such as cyclic or directional changes in ocean environments due to natural and human causes (McElhany *et al.* 2000; NMFS 2017). We conclude that such diversity provides some level of resilience to threats for this DPS.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Destruction and modification of leatherback turtle nesting habitat results from a variety of activities including coastal development and construction; beach erosion and inundation; placement of erosion control and nearshore shoreline stabilization structures and other barriers to nesting; beachfront lighting; vehicular and pedestrian traffic; beach sand placement; sand extraction; removal of native vegetation; and planting of non-native vegetation (Lutcavage *et al.* 1997; Bouchard *et al.* 1998; USFWS 1999; Dow *et al.* 2007; Eckert *et al.* 2012; NMFS and USFWS 2013). As a result, most nesting beaches are severely degraded by such activities that continue to cause adverse impacts throughout the range of the DPS.

Coastal Development and Construction

In many areas, nesting habitat is under constant threat from coastal development and construction (Dow *et al.* 2007; Crespo and Diez 2016; Flores and Diez 2016). Coastal development impacts include construction of buildings and pilings on the beach; increased erosion; artificial lighting; pollution; recreational beach equipment and other obstacles on the beach; beach driving; increased human disturbance; and mechanized beach cleaning (Lutcavage *et al.* 1997; USFWS 1999; Hernandez *et al.* 2007; Dow *et al.* 2007; Trinidad and Tobago Forestry Division *et al.* 2010; Flores and Diez 2016). Driftwood found on nesting beaches also has the potential to alter nesting beach habitat and obstruct nesting females and hatchlings, as seen in Gandoca, Costa Rica (Chacón-Chaverri and Eckert 2007). These threats impact nesting habitat by reducing the amount and quality of suitable beaches, preventing or deterring nesting females from using optimal locations, destroying nests, eggs, and hatchlings, and preventing hatchlings from successfully reaching the ocean (USFWS 1999; Chacón-Chaverri and Eckert 2007; Hernandez *et al.* 2007; Witherington *et al.* 2014). Development involving the construction of tall buildings and clearing of vegetation can also alter sand temperatures and skew sex ratios (Gledhill 2007).

Development occurs to varying extents throughout the range of the DPS, but most leatherback nesting occurs in proximity to some coastal development. The Florida shoreline is extensively developed outside wildlife refuges (Witherington *et al.* 2011). In Grenada, nearly 20 percent of all nests surveyed from 2001 to 2005 occurred in an area affected by development, resulting in ongoing run-off onto nesting beaches (Maison *et al.* 2010). In Trinidad, increasing rural and commercial beachfront development is a concern, especially on the east coast where the main nesting beaches are located (Trinidad and Tobago Forestry Division *et al.* 2010), including Grande Riviere, the largest nesting aggregation of this DPS. Likewise, several Tobago beaches are densely developed for commercial tourism, resulting in reduced turtle access to potential nesting sites due to buildings, umbrellas, and other recreational equipment (Trinidad and Tobago Forestry Division *et al.* 2010). Development in Puerto Rico, in particular Playa Grande-El Paraiso (*i.e.,* Dorado Beach, which is considered to be the most important nesting beach in Puerto Rico), is also a notable concern (Crespo and Diez 2016; Flores and Diez 2016). There, ecosystems continue to be threatened by coastal development, even though the coastal zone is protected by the Maritime-Terrestrial Zone designation (*i.e.,* Coastal Public Trust Lands; Flores and Diez 2016).

Coastal development likely influences leatherback nest placement and subsequent nest success, which is the percentage of nesting attempts (*i.e.,* emergences onto the beach) that result in eggs being deposited. On Margarita Island, Venezuela, Hernandez *et al.* (2007) found that leatherback nesting aggregated towards the portions of the beach with fewer risk factors, such as light pollution and concentrations of beach furniture. This change in nesting behavior resulted in females nesting in less optimum areas (*e.g.,* areas with lower hatching success), thus affecting the reproductive potential of leatherback turtles in this region.

The magnitude of development is also changing in some areas, where nest placement and success may be affected in the future. For instance, the area around Cayenne, French Guiana, is undergoing increased urbanization and recreational use (Fossette *et al.* 2008). In recent years, nesting has increased at Cayenne and eastern beaches compared to the western Awala-Yalimapo beaches (Réserve Naturelle de l'Amana data in Berzins 2018 and KWATA data in Berzins 2018). As such, more nesting in French Guiana is exposed to coastal development and the associated threats, and these threats are likely to continue and increase.

Beach Erosion and Inundation

While erosion is often intensified due to anthropogenic influences, natural features in some areas result in high erosion rates and unstable beaches, thus affecting leatherback nesting. For instance, the Maroni River influence in the Guianas (French Guiana especially) has resulted in highly dynamic and unstable beaches, with shifting mudflats making nesting habitat unsuitable (Crossland 2003; Goverse and Hilterman 2003; Fossette *et al.* 2008). Beaches are often created and lost along the coast of French Guiana (Kelle *et al.* 2007). For example, remote beaches in western French Guiana experience significant beach erosion and several disappeared, reducing or preventing monitoring (and likely nesting). In Suriname, Braamspunt Beach at the mouth of the Suriname River is moving west, out of the established Wia Wia Nature Reserve and may disappear in the next several years (M. Hiwat, WWF, pers. comm., 2018). This is significant in that Braamspunt is currently the main nesting beach in Suriname. The second highest nesting area in Suriname, Galibi Beach, is also experiencing significant erosion and becoming narrower. Similar beach erosion is occurring in Guyana, as well as in Trinidad and Tobago (Reichart *et al.* 2003; Trinidad and Tobago Forestry Division *et al.* 2010). At some Trinidad and Tobago nesting sites (*e.g.,* Fishing Pond, Matura, Grande Riviere, and Great Courland Bay), rivers emerge onto nesting beaches and create additional erosion during the nesting season (Godley *et al.* 1993; Lee Lum 2005), intensifying nest loss (up to 35 percent of nests; Trinidad and Tobago Forestry Division *et al.* 2010).

Seasonal erosion also occurs at most Caribbean nesting beaches. A survey of Wider Caribbean Regions found that erosion/accretion was the highest threat to nesting habitat (Dow *et al.* 2007). For example, at Playa Gandoca, Costa Rica, erosion from strong coastal drift currents is thought to be one of the largest obstacles to hatching success, destroying greater than 10 percent of all

nests laid in some years (Chacón-Chaverri and Eckert 2007). In 2006 and 2007, coastal erosion and inundation accounted for 33 to 42 percent of nest loss in southern Panama and 29 to 48 percent on Caribbean Colombia beaches (Patiño-Martínez *et al.* 2008).

Inundation of nests is also a concern. Leatherback turtles generally nest closer to the water than other sea turtles (Caut *et al.* 2010). If nests are laid too close to the high tide line, they are subjected to erosion and inundation, which can result in egg mortality from suffocation or curtailed embryonic development (Chacón-Chaverri and Eckert 2007; Caut *et al.* 2010). This inundation phenomenon occurs on multiple nesting beaches and is particularly of concern in areas with high tidal influence and dynamic coastlines. On Krofajapasi beach in Suriname, 31.6 percent of nests laid by females were below the spring high tide level and determined to be ''doomed'' clutches (Dutton and Whitmore 1983). Similarly, in Gandoca, Costa Rica, 37 percent of nests from 1990 to 2004 were laid in the low tide zone and would have been inundated if not relocated (Chacón-Chaverri and Eckert 2007). In St. Croix, 43 percent of the nests (with a range of 25 to 68 percent) were considered to be ''doomed'' each season (McDonald-Dutton *et al.* 2001), but beginning in 1983, all doomed clutches were relocated to improve hatching success (Dutton *et al.* 2005). Without intervention, these nests would likely have been lost. On Awala-Yalimapo, French Guiana, 27 of 89 nests were overlapped by tide at least once during the incubation period, and the hatching success was on average significantly lower in overwashed nests (Caut *et al.* 2010). Observed mortality was 100 percent in the intertidal zone at sites along the coasts of Panama and Colombia, with an overall nest loss by erosion and inundation ranging from 16 to 48 percent among three major nesting sites (Patiño-Martínez *et al.* 2008). While levels of inundation and resulting declines in hatching success have been noted at multiple sites throughout the range of the NW Atlantic DPS, the specific impacts of inundation may be variable. Hilterman and Goverse (2007) noted that leatherback nests can tolerate relatively high levels of inundation, so hatching may still be successful despite proximity to the tide line. Because of this, and because it may affect natural sex ratios (Mrosovsky and Yntema 1980), the relocation of nests susceptible to inundation was abandoned in 2002 in Suriname (Hilterman and Goverse 2007); only nests directly threatened by beach erosion are relocated, under certain circumstances. Other nations still relocate nests to reduce the impacts of erosion. However, as mentioned, such practices may result in cooler nests and affect sex ratios (Spanier 2008). While eggs relocated to hatcheries could have been lost under natural circumstances, due to coastal erosion and inundation in some areas (Dutton and Whitmore 1983, Chacón-Chaverri and Eckert 2007), hatching success in relocated nests is often lower than *in situ* nests (Revuelta *et al.* 2014; Valentin-Gamazo *et al.* 2018; Florida Department of Environmental Protection unpublished data 2018).

Such naturally dynamic areas make it difficult to protect nesting beach habitat and accurately assess leatherback nesting trends. This is particularly noteworthy given that nesting females use high energy, erosion-prone beaches, which often result in high nest loss (Chacón-Chaverri and Eckert 2007; TEWG 2007; Spanier 2008; Trinidad and Tobago Forestry Division *et al.* 2010). However, leatherback turtles in the Guianas seem to have adapted to this constant geomorphological change of beaches. When new beaches develop, they may be colonized within months by nesting females, who take advantage of the fresh, clean sand (or seashells, in Guyana) and absence of entangling or deep-rooted beach vegetation (TEWG 2007).

Nest site selection by leatherback turtles is still poorly understood (Maison *et al.* 2010), but nesting females may be changing their nesting patterns due to erosion. Spanier (2008) found that nesting females at Playa Gandoca, Costa Rica, appear to actively select nest sites that are not undergoing extensive erosion, with slope considered to be the cue for site selection. A similar result was found on Grande Riviere, Trinidad, with a nesting shift from east to west throughout the season as an apparent response to erosion on the eastern end of the nesting beach (Lee Lum 2005). Further, Maison *et al.* (2010) studied nest placement in Grenada and discovered that leatherback turtles seemed to respond to the accretion of the north facing beach and erosion of the east facing beach in 2005 by nesting more often on the north facing beach. If erosion is increasing in existing nesting locations, nesting may occur in areas with lower success rates, thus affecting productivity. In addition, leatherback nests are deeper than those of other sea turtles; water content and salinity typically increase with depth, leading to a decrease in sea turtle hatching success (Foley *et al.* 2006).

Erosion Control, Nearshore Shoreline Stabilization Structures, and Other Barriers

A widespread strategy to reduce coastal erosion is to construct erosion control structures. However, these structures reduce the amount of available nesting habitat. Also, when beachfront development occurs, the site is often engineered to protect the property from erosion. This type of shoreline engineering, collectively referred to as beach armoring, includes sea walls, rock revetments, riprap, sandbag installations, groins and jetties. Beach armoring can result in permanent loss of a nesting beach through accelerated erosion and prevention of natural beach/dune accretion. These impacts can prevent or hamper nesting females from accessing suitable nesting sites (USFWS 1999). Clutches deposited seaward of these structures may be inundated at high tide or washed out entirely by increased wave action near the base of the erosion control structures. As these structures fail and break apart, they spread debris on the beach, thus creating additional impacts to hatchlings and nesting females.

In the southeastern United States, numerous erosion control structures that create barriers to nesting have been constructed. In Florida, the total amount of existing and potential future armoring along the coastline is approximately 24 percent (164 miles; FDEP, pers. comm., 2018). This assessment of armoring does not include other structures that are a barrier to sea turtle nesting, such as dune crossovers, cabanas, sand fences, and recreational equipment. Additionally, jetties have been placed at many ocean inlets in the United States to keep transported sand from closing the inlet channel. The installation of jetties resulted in lower loggerhead and green turtle nesting density updrift and downdrift of the inlets, leading researchers to propose that beach instability from both erosion and accretion may discourage turtle nesting (Witherington *et al.* 2005). Leatherback nesting near jetties and inlets is low, possibly reflecting their avoidance of such areas. There are some efforts, such as the Coastal Construction Control Line Program, that provide protection for Florida's beaches and dunes while allowing for continued use of private property. However, armoring structures on and adjacent to the nesting beach continue to be permitted and constructed on the nesting beaches of Florida, as in other nations where the DPS nests.

Due to erosion, beach nourishment is a frequent activity in some developed

areas, and many beaches are on a periodic nourishment schedule. Beach nourishment may result in direct burial and disturbance to nesting females, if conducted during the nesting season. It may also result in changes in sand density, beach hardness, beach moisture content, beach slope, sand color, sand grain size, sand grain shape, and sand grain mineral content, if the placed sand is dissimilar from the original beach sand (Nelson and Dickerson 1988; USFWS 1999). These changes can affect nest site selection, digging behavior, incubation temperature (and hence sex ratios), gas exchange parameters within incubating nests, hydric environment of the nest, hatching success and hatchling emerging success (Lutcavage *et al.* 1997; Steinitz *et al.* 1998; Ernest and Martin 1999; USFWS 1999; Rumbold *et al.* 2001; Brock *et al.* 2009). On severely eroded sections of beach, where little or no suitable nesting habitat previously existed, beach nourishment has been found to result in increased nesting (Ernest and Martin 1999). However, on most beaches in the southeastern United States, nesting success typically declines for the first year or two following nourishment, even though more nesting habitat is available for turtles (Trindell *et al.* 1998; Ernest and Martin 1999; Herren 1999; Brock *et al.* 2009). Further, nourishment projects result in heavy machinery, pipelines, increased human activity and artificial lighting on the project beach, further affecting nesting females and beach habitat. Overall, the impacts of beach nourishment to this DPS are not as widespread as other threats to nesting habitat, as Dow *et al.* (2007) found that only four nations (Anguilla, Cuba, Mexico, and United States) reported frequent or occasional beach nourishment.

Artificial Lighting

Coastal development also contributes to habitat degradation by increasing light pollution, which can result in hatchling and nesting female disorientation, altering behavior and leading to mortality. In Florida, from 2013 to 2017, a total of 341 leatherback nests (representing the whole or majority of hatchlings in the nest) and five nesting females were disoriented (FWC unpublished data 2018). Artificial lighting ranked as the third highest threat to nesting/hatching turtles in the Wider Caribbean Region (Dow *et al.* 2007). For example, urban development is significant in Puerto Rico, with light pollution (as well as coastal erosion and deforestation) occurring near leatherback nesting beaches (Crespo and Diez 2016). Fortunately, some of the major nesting beaches in this DPS are located in comparatively remote areas, and large-scale development is currently less of an issue there (Trinidad and Tobago Forestry Division *et al.* 2010; NMFS and USFWS 2013). That said, even within the same country, light pollution is variable. Fossette *et al.* (2008) reported that in French Guiana, light pollution from residential areas is a problem at Cayenne Beach, but it is not an issue at Awala-Yalimapo. Similarly, lighting is not a significant problem on nesting beaches in Trinidad, but is a concern in Tobago (Trinidad and Tobago Forestry Division *et al.* 2010). With the risk of increased development in some of these relatively remote areas, additional light pollution is anticipated, and disorientation of hatchlings and adults from such lighting may become a bigger problem. In Costa Rica, beachfront lighting is increasing and may become problematic at Gandoca Beach (Chacón-Chaverri and Eckert 2007) and Tortuguero (de Haro and Troëng 2006).

Light pollution has been managed to some extent (Witherington *et al.* 2014). Lighting in Florida is regulated by multiple rules and regulations including Florida statutes, the Florida Building Code, and local lighting ordinances (Witherington *et al.* 2014). In addition, the Florida Department of Transportation and local governments have adopted lighting-design standards. A total of 82 municipalities in Florida have adopted lighting ordinances to minimize the impact of lighting on adjacent sea turtle nesting beaches (Witherington *et al.* 2014). However, compliance and enforcement is lacking in some areas. Further, lighting away from areas covered by beachfront ordinances is unregulated, resulting in urban glow. Although outreach and conservation programs control the impacts of lighting in some other locations, such as Costa Rica, Mexico, and Puerto Rico (Lutcavage *et al.* 1997; Crespo and Diez 2016), a majority of nations do not have regulations in place.

Sand Extraction

Extracting sand from nesting beaches for construction projects has a detrimental effect on the amount of available nesting beach habitat and also accelerates erosion (resulting in the aforementioned associated impacts). Sand mining occurs in most Wider Caribbean nations to varying extent and frequency (Dow *et al.* 2007). In particular, beach sand mining has been extensive at Matura Bay and Blanchisseuse in Trinidad (Trinidad and Tobago Forestry Division *et al.* 2010). Some nations regulate sand mining: In St. Lucia, the Conservation and Management Act of 2014 requires a certificate of environmental approval for projects removing sand from nesting beaches.

Removal of Native Vegetation

In some nations, upland deforestation and the resultant deposition of debris and garbage can destroy or modify nesting beaches. The debris can block access of gravid (pregnant) females and fatally trap emergent hatchlings (Chacón-Chaverri and Eckert 2007). The accumulation of logs reduces the amount of available nesting habitat, possibly forcing leatherback females to nest in suboptimal locations (TEWG 2007). Deforestation due to coastal development is a notable concern in Puerto Rico (Crespo and Diez 2016).

Vehicular Traffic

Beach driving also occurs in most nations throughout the range of this DPS (Chacón-Chaverri and Eckert 2007; Dow *et al.* 2007; Trinidad and Tobago Forestry Division *et al.* 2010). In the United States, vehicular driving is allowed on certain beaches in Florida (*e.g.,* Duval, St. Johns, and Volusia Counties). Beach driving reduces the quality of nesting habitat in several ways. Vehicle ruts on the beach can prevent or impede hatchlings from reaching the ocean following emergence from the nest (Mann 1977; Hosier *et al.* 1981; Cox *et al.* 1994; Hughes and Caine 1994). Sand compaction by vehicles hinders nest construction and hatchling emergence from nests (Mann 1977; Gledhill 2007). Vehicle lights and vehicle movement on the beach after dark can deter females from nesting and disorient hatchlings. Additionally, vehicle traffic contributes to erosion, especially during high tides or on narrow beaches where driving is concentrated on the high beach and foredune.

Vegetation

Beach vegetation (native and non-native) can affect turtle nesting productivity by obstructing nest construction and potentially drying the sand (resulting in egg chamber collapse). Vegetation can form impenetrable root mats that can invade and desiccate eggs and affect developing embryos, impede hatchling emergence, and trap hatchlings (Conrad *et al.* 2011). Non-native vegetation has invaded many coastal areas and often outcompetes native plant species (USFWS 1999). The occurrence of exotic vegetation (or loss of native vegetation) was recognized as a medium-ranked threat in many Wider Caribbean nations

(Dow *et al.* 2007). The Australian pine (*Casuarina equisetifolia*) is particularly harmful to sea turtles (USFWS 1999). Australian pines cause excessive shading of the beach that would not otherwise occur. Studies of loggerhead turtles in Florida suggest that nests laid in shaded areas are subjected to lower incubation temperatures, which may alter the natural hatchling sex ratio (Marcus and Maley 1987; Schmelz and Mezich 1988). Fallen Australian pines limit access to suitable nest sites and can entrap nesting females (Reardon and Mansfield 1997). The shallow root network of these pines can interfere with nest construction (Schmelz and Mezich 1988). Dense stands of Australian pine have overtaken many coastal areas throughout central and south Florida.

While non-native vegetation can affect nesting habitat throughout the range of the DPS, native vegetation can also affect productivity. For instance, at Sandy Point, St. Croix, changing erosion-accretion cycles led to native *Ipomoea pes-caprae,* a creeping vine, extending into the nesting area in some years. Nesting females at Sandy Point typically avoided nesting in vegetation, resulting in more nests laid near the high-tide line (Conrad *et al.* 2011). As a result, *Ipomoea pes-caprae* decreased nest productivity by reducing leatherback hatching and emergence (percentage of hatchlings that emerge from the nest) success rates (Conrad *et al.* 2011).

Mitigations to Habitat Modification

Nesting habitat disruptions are minimized in some areas. Several areas in the NW Atlantic DPS range are under U.S. Federal ownership as National Wildlife Refuges in Florida (Archie Carr and Hobe Sound), Puerto Rico (Culebra and Vieques) and St. Croix (Sandy Point). Beaches in some Wider Caribbean countries are also protected. In Trinidad, Matura and Fishing Pond beaches were declared Prohibited Areas in 1990, and the nesting beach at Grande Riviere in 1997. In 1998, the Amana Nature Reserve, which includes Awala-Yalimapo beach and a 30 m wide marine fringe, was established in French Guiana. In Suriname, the Wia Wia Nature Reserve was implemented in 1961 (amended and enlarged in 1966 to protect sea turtles), and in 1969, the Marowijne beaches were declared a sanctuary (the Galibi Nature Reserve; Schulz 1971). In addition, Tortuguero National Park, Costa Rica, was established in 1976 to protect nesting habitat (Bjorndal *et al.,* 1999). Terrestrial habitat in these areas is therefore protected from the above threats to some extent. USFWS and NMFS also designated as critical habitat for leatherback turtles the nesting beaches at Sandy Point, St. Croix (43 FR 43688; September 26, 1978) and surrounding marine waters (44 FR 17710; March 23, 1979), which benefits the turtles in this DPS. However, if ESA protections did not continue (*i.e.,* if this species were no longer listed), these protections would be lost.

Marine Habitat Modifications

In the marine environment, habitat threats include anthropogenic noise and offshore lighting. We discuss other threats to marine habitat and prey (*e.g.,* marine pollution, oil exploration, and climate change) in later sections. Anthropogenic noise impacts the marine habitat of the DPS. Dow Piniak *et al.* (2012) measured hearing sensitivity of leatherback hatchlings. They found that hatchlings are able to detect sounds underwater and in air, responding to stimuli between 50 and 1200 Hz in water and 50 and 1600 Hz in air, with maximum sensitivity between 100 and 400 Hz in water and 50 and 400 Hz in air. This sensitivity range overlaps with the frequencies and levels produced by many anthropogenic sources used in the North Atlantic, including seismic airgun arrays, drilling, low frequency sonar, shipping, pile driving, and operating wind turbines. These noise sources may affect leatherback turtles' marine habitat and subsequently impact distribution and behavior. Offshore artificial lighting occurs in some marine waters of this DPS (Dow *et al.* 2007) but is less of a threat than beachfront lighting throughout the range of the DPS.

Summary

We conclude that nesting females, hatchlings, and eggs are exposed to the loss and modification of nesting habitat, especially as a result of coastal development and armoring, erosion, and artificial lighting. These threats impact the DPS by reducing nesting and hatching success, thus, lowering the productivity of the DPS. Based on the information presented above, we conclude that habitat reduction and modification pose a threat to the NW Atlantic DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is a threat to the NW Atlantic DPS, mostly due to poaching of turtles and eggs in certain nations. Legal harvest of turtles and eggs also occurs in some nations.

While the vast majority of nations within the range of the NW Atlantic DPS protect leatherback turtles from harvest, it is legal in some Caribbean and Central American nations (Brautigam and Eckert 2006; Dow *et al.* 2007; Richardson *et al.* 2013; Horrocks *et al.* 2016). For example, the harvest of leatherback turtles over 20 pounds is allowed in Montserrat and Dominica from October 1 to May 31; Saint Lucia allows leatherback turtles over 65 pounds to be taken from October 2 to February 27; and St. Kitts and Nevis allows take of leatherback turtles over 350 pounds from October 2 to February 27 (Montserrat Turtles Act 2002; Bräutigam and Eckert 2006). In some nations, commercial use is prohibited, but traditional use is allowed, which can still diminish protection. In Colombia, subsistence fishing of sea turtles is permitted, and indigenous use is allowed in Honduras. Traditional or cultural use is permitted in Belize with prior approval (Bräutigam and Eckert 2006). However, regular leatherback nesting does not occur in Belize, and its occurrence in surrounding waters is infrequent, reducing the impact of such mortality. Legal harvest throughout the range of this DPS is not monitored, and the precise magnitude of this threat is not clear. However, we conclude that legal harvest of turtles is significant because, when it occurs, nesting turtles are targeted, removing the most important individuals from the population. More often, leatherback eggs, rather than turtle meat, are harvested (TEWG 2007; Patiño-Martínez *et al.* 2008), reducing productivity in the DPS.

Poaching of turtles and eggs occurs throughout the NW Atlantic DPS, and Dow *et al.* (2007) ranked it as a threat for all turtle species on the beaches in the Wider Caribbean Region. In Panama, interviews with locals revealed that the development of a new way for cooking leatherback turtle meat has resulted in a recent increase of its consumption in Changuinola, Bocas del Toro Province (CITES Secretariat 2019). Adult turtles are killed in Panama and on remote beaches in Trinidad and Tobago (Troëng *et al.* 2002; Ordoñez *et al.* 2007; Trinidad and Tobago Forestry Division *et al.* 2010). Most poaching, however, targets eggs, and the level often is determined by how much monitoring and activity to deter poachers occur on the nesting beaches. Some of the highest levels of egg poaching occur throughout Costa Rica (Troëng *et al.* 2004). Troëng *et al.* (2007) found that, at a minimum, between 13 to 21.5 percent of nests between 2000 and 2005 were illegally

collected at Tortuguero. Poaching of leatherback nests was higher outside Tortuguero National Park (minimum 33 percent) than within the National Park (minimum 9 percent) in 2005 (de Haro and Troëng 2006). At Pacuare Playa, Costa Rica, 55 percent of nests were poached in 2012 (Fonseca and Chacón 2012) and 42 percent were poached in 2017, which was the lowest level since Latin American Sea Turtles (LAST) started to monitor in 2012 (LAST 2017). Poaching at Gandoca Beach has decreased over time (previously 100 percent of nests were poached), but rates still averaged 15.5 percent annually from 1990 to 2004 (Chacón-Chaverri and Eckert 2007). In the Dominican Republic, poaching is also high. Revuelta *et al.* (2012) determined the poaching of clutches in Jaragua National Park and Saona Island ranged from 0 to 100 percent from 2006 to 2010, with averages of 19 percent on western Jaragua National Park beaches, 71 percent on eastern Jaragua National Park beaches, and 74 percent on Saona. Poaching also occurs at relatively high levels in Colombia (*e.g.,* 22 to 31 percent of clutches at Playona in 2006 and 2007; Patiño-Martínez *et al.* 2008) and, to some extent, in most other Caribbean nations (*e.g.,* Guyana and Grenada). Poaching is likely more prevalent, and occurs at higher levels, on unmonitored or unprotected beaches (Dow *et al.* 2007; TEWG 2007; Troëng *et al.* 2007; Trinidad and Tobago Forestry Division *et al.* 2010; K. Charles, Oceans Spirits Inc., pers. comm., 2018).

Poaching has been significantly reduced at some nesting beaches. In Suriname, high levels of egg poaching (at least 26 percent of nests) occurred in the late 1990s, but due to better monitoring and enforcement, that level has been significantly reduced (Hilterman and Goverse 2007; M. Hiwat, WWF, pers. comm., 2018). Poaching was also a major problem in Trinidad, but levels have been reduced with more people monitoring the beach (Trinidad and Tobago Forestry Division *et al.* 2010). The Marine Turtle Conservation Act of 2004 (MTCA) funds activities in Panama in an attempt to reduce poaching. At Chiriqui Beach, Panama, intense monitoring efforts have attempted to reduce poaching. However, of the monitored nests, 29 leatherback nests (0.7 percent) were still poached in 2017 (Sea Turtle Conservancy 2017). Further, poaching in Panama outside the monitored areas still occurs, with the clandestine sale of eggs widespread (Brautigam and Eckert 2006). In St. Croix, almost 100 percent of nests were lost to poaching prior to 1981 (Garner *et al.* 2017). However, the establishment of the USFWS Sandy Point National Wildlife Refuge has reduced egg poaching to 0 to 1.8 percent annually as a result of nightly patrols (Garner *et al.* 2017).

Poaching of eggs is widespread throughout the Caribbean, especially on beaches of Costa Rica, Dominican Republic, and Colombia. The total number of individuals affected by poaching cannot be quantified at this time. However, we conclude that many eggs and some adults are affected by illegal poaching at nesting beaches. Adults and eggs are also exposed to legal harvest in some nations. The legal and illegal harvest of nesting females reduces both abundance (through loss of nesting females) and productivity (through loss of reproductive potential), resulting in a high impact to the DPS. Legal and illegal egg harvest reduces productivity only. Thus, we conclude that overutilization poses a threat to the DPS.

Disease or Predation

For the NW Atlantic DPS, information on diseases is limited, but predation is a well-documented threat.

Much of the available information on disease in leatherback turtles was obtained by necropsy of stranded large juvenile and adult turtles; the health implications of various conditions reported in this species are incompletely understood. Solitary large intestinal diverticulitis of unknown etiology was found in 31 subadult and adult leatherback turtles stranded in U.S. waters (Stacy *et al.* 2015). All lesions were chronic and unrelated to the cause of death in all cases, although risk of perforation and other complications are possible. Adrenal gland protozoal parasites were found in 17 leatherback turtles in North American waters examined from 2001 to 2014; it is not currently known whether parasitism affects adrenal function (Ferguson *et al.* 2016). In addition, leatherback turtles are hosts for several trematode parasites (flatworms), known species of which also occur in hard-shelled sea turtles (Manfredi *et al.* 1996, Greiner *et al.* 2013). In general, trematodes are frequently encountered without any apparent clinical effect on the turtle host but can affect some heavily parasitized individuals. With regard to other types of potential disease-causing organisms, there are a small number of reports of bacterial infections in stranded individuals (Poppi *et al.* 2012; Donnelly *et al.* 2016). A variety of other bacteria have been documented in nesting females on beaches in Costa Rica (Santoro *et al.* 2008) and St. Kitts (Dutton *et al.* 2013); the majority of identified bacterial species may be considered as potential or opportunistic pathogens for sea turtles. A putative case of fibropapilloma, a virus-associated tumor-causing disease in sea turtles, has been reported in a leatherback; this disease is considered very rare in the species (Huerta *et al.* 2002).

An in-water health assessment was performed on 12 turtles directly caught at-sea and seven turtles bycaught in fishing gear in the NW Atlantic Ocean (Innis *et al.* 2010). Most were determined to be in good health, but several exhibited evidence of past injuries. The blood chemistry of entangled turtles indicated stress, seawater intake, and reduced food consumption associated with entanglement. In addition, Perrault *et al.* (2012) examined baseline blood chemistry metrics (*i.e.,* plasma protein electrophoresis, hematology, and plasma biochemistry) as indicators of health for nesting females in Florida. They found that multiple measures of maternal health significantly correlated with leatherback hatching and emergence success (the percentage of hatchlings that emerge from the nest).

From these data, we estimate that the exposure of eggs, juveniles, and adults to disease is low. The impact of disease cannot be quantified at this time as we have no documentation of any deaths or reductions in productivity directly related to disease. However, disease may compound the effects of or have synergistic effects with other threats to the species and related physiologic derangements. We conclude that disease, alone or in combination with other threats, is likely a threat to the DPS.

Throughout the range of the DPS, predation is a threat to leatherback eggs, hatchlings, and adults. Eckert *et al.* (2012) provides an exhaustive list of the documented predators for each life stage and area. For eggs in the NW Atlantic DPS, predators include ants (*Dorylus spininodis*), fly larvae (*Diptera* spp.), locust larvae (*Acrididae* spp.), mole crickets (*Scapteriscus didactylus*), ghost crabs (*Ocypode quadratus*), vultures (Cathartidae), dogs (*Canis familiaris*), cattle (*Bos taurus;* due to trampling), armadillo (Dasypodidae), opossum (*Didelphis marsupialis*), coati (*Nasua* spp.), and raccoons (*Procyon lotor*); see Eckert *et al.* 2012).

In particular, dog predation of eggs occurs in many areas (*e.g.,* Colombia, French Guiana, Guyana, Panama, Puerto Rico, and Trinidad and Tobago). In Trinidad, where the largest nesting aggregation occurs, feral dogs are

considered to be the primary threat to eggs, even above poaching and coastal erosion (Trinidad and Tobago Forestry Division *et al.* 2010). On Chiriqui Beach, Panama, 54 percent of the monitored leatherback nests were depredated by dogs in 2003 and approximately eight percent in 2004 (Ordoñez *et al.* 2007). Such predation may been reduced as a result of protection efforts funded by the MTCA. In Playa California, Maunabo, Puerto Rico, more than 30 percent of the leatherback nests were depredated by stray dogs in 2012 (Crespo and Diez 2016). A public outreach project in Puerto Rico was established in 2013 to reduce this impact. Puerto Rico is a U.S. territory; if ESA protections were removed, it is likely that predation rates would be higher.

Egg predation by other species is also a notable concern in some areas. On Gandoca Beach, Costa Rica, dipteran larvae infestation exceeded 75 percent of nests in 2005 and 2006 (Gautreau *et al.* 2008). In French Guiana, on average, mole crickets preyed on 18 percent of all eggs (Maros *et al.* 2003). These threats are likely to continue, as no predator screening typically occurs in Wider Caribbean nations due to the potential for increased poaching as well as logistical difficulties in these areas of high density nesting. Nest loss to predators was found to be the seventh ranked threat to turtles (all species, not specific to leatherback turtles) on nesting beaches in the Wider Caribbean Region, and have been noted to frequently occur in Honduras, Mexico, Panama, Puerto Rico, and Venezuela (Dow *et al.* 2007).

Hatchlings are preyed upon by a wide variety of species, including mole crickets, ghost crabs, horse-eye jack fish (*Caranx latus*), gray snapper (*Lutjanus griseus*), tarpon (*Megalops atlanticus*), vultures, hawks (Accipitridae), gulls (*Larus* spp.), night heron (*Nyctanassa violacea*), frigate birds (Fregatidae), dogs, mongoose (*Atilax paludinosus*), coati, and raccoons (Eckert *et al.* 2012). Again, dogs are a serious threat to leatherback hatchlings in some areas, and especially in Puerto Rico (Crespo and Diez 2016).

There are few documented predators to subadults and adult leatherback turtles, presumably because of their large size and pelagic behavior. Predation by sharks (Elasmobranchii) and killer whales (*Orcinus orca*) has been reported in Barbados and St. Vincent, respectively (Caldwell and Caldwell 1969; Horrocks 1989). Sharks have also been reported to prey on nesting females off St. Croix, USVI (DeLand 2017; Scarfo *et al.* 2019). Over the past 6 years, researchers at Sandy Point have observed an apparent increase in injuries to leatherback turtles (K. Stewart, NMFS, pers. comm., 2019). These injuries, many of them consistent with shark predation, affect up to 70 percent of all nesting females at the beach (Scarfo *et al.* 2019). While some turtles probably survive these encounters, it is unknown how many encounters result in mortality or reduced nesting effort. Jaguars (*Panthera onca*) prey on nesting females in some areas, including Suriname, French Guiana, Guyana, and Costa Rica (see Eckert *et al.* 2012). While three nesting females were killed by jaguars at Tortuguero, Costa Rica, from 1998 to 2005, this mortality is only considered to be a minor threat and is therefore unlikely to cause a population decline on its own (Troëng *et al.* 2007). Archibald and James (2018) examined 228 leatherback turtles for injuries off Atlantic Canada and on Matura, Trinidad, and found 15.7 percent of turtles exhibited injuries of suspected predatory origin.

Predation on early life stages is natural; however, at high rates, it reduces the viability of the DPS (see the Status Review). Predation primarily reduces productivity via reduced egg and hatching success and the loss of hatchlings. Predation on nesting females reduces abundance and productivity. We conclude that predation is a threat to the NW Atlantic DPS.

Inadequacy of Existing Regulatory Mechanisms

Many regulatory mechanisms (including state, Federal and international) have been promulgated to protect leatherback turtles, eggs, and nesting habitat throughout the range of the NW Atlantic DPS. We reviewed the objectives of each regulation and to what extent they adequately address the targeted threat (*i.e.,* the threat that the regulation was intended to address). The effectiveness of many international regulations was evaluated by Hykle (2002), who found that international instruments often do not realize their full potential, either because they do not include all key countries, do not specifically address sea turtle conservation, are handicapped by the lack of a sovereign authority that promotes enforcement, or are not legally binding.

National regulatory mechanisms are described in full in the Status Review Report. Although these regulatory mechanisms provide some protection to the species, most inadequately reduce the threat they were designed to address, generally as a result of poor implementation or incomplete enforcement. Specifically, existing regulatory mechanisms continue to be inadequate to control impacts to nesting beach habitat and overutilization (harvest of turtles and eggs) for this DPS. In addition, regulatory mechanisms are inadequate to reduce several other threats including bycatch in fishing gear, vessel strikes, and marine debris. Despite existing regulatory mechanisms, bycatch from fisheries (discussed in detail along with existing regulatory mechanisms in the Fisheries Bycatch section), incomplete nesting habitat protection, and poaching remain major threats to the DPS.

Fisheries Bycatch

Fisheries bycatch is the primary threat to the NW Atlantic DPS. Bycatch occurs throughout the range of the DPS, affecting juveniles, subadults, and adults.

Finkbeiner *et al.* (2011) analyzed sea turtle bycatch across all commercial U.S. fisheries from 1990 to 2007. They examined sea turtle bycatch reduction based on the year a particular fishery implemented bycatch reduction measures. Prior to implementing bycatch reduction measures, approximately 3,800 leatherback interactions, of which 2,300 were lethal, occurred in U.S. Atlantic Ocean and GOM commercial fisheries annually. After bycatch reduction measures were implemented, 1,400 leatherback turtles, 40 of those dead, were estimated to be taken annually in the Atlantic Ocean. The Atlantic/GOM pelagic longline fishery was responsible for the most annual interactions (n = 900) and mortality events (n = 17) in the Atlantic Ocean, followed by the southeast Atlantic/GOM shrimp trawl fishery (Finkbeiner *et al.* 2011). These estimates represent minimum numbers of actual bycatch and mortality. Because the observer coverage for these fisheries is low (so some bycatch may not be observed and observed effort may not be a true representation of actual fleet effort), not all fisheries are observed and thus some are not included in these estimates. Interactions are difficult to observe if gear modifications are in place, and so the methods used are conservative (Finkbeiner *et al.* 2011).

In the Wider Caribbean Region, reports of leatherback bycatch in fisheries are common. In a survey of Caribbean nations, Dow *et al.* (2007) ranked fisheries bycatch among the highest in-water threat to sea turtles. Many fisheries in less industrialized nations are coastal and small-scale, but these fisheries are reported to have significant ecological impacts due to their high bycatch discards and impacts

to the marine environment (Shester and Micheli 2011). Of particular concern are leatherback bycatch in artisanal nearshore and offshore gillnet, longline and trawl fisheries (Barrios-Garrido and Montiel-Villalobos 2016). Information on fisheries bycatch is collected mostly from stranding records but also from fisher surveys (Moncada *et al.* 2003; Delamare 2005; Madarie 2006, 2010, 2012) and observations of nesting females. Hilterman and Goverse (2007) recorded fisheries related injuries on nesting females in Suriname. In 2002, 16.9 percent of the nesting females had fisheries- related injuries; in 2003, at least 18.3 percent had such injuries; and in 2005, 9 percent (Hilterman and Goverse 2007). From 2000 to 2003, an average of 28 leatherback turtles stranded on the Suriname survey beaches. Although no cause of death was immediately apparent, Hilterman and Goverse (2007) indicated that the mortalities were fisheries-related, based upon the fisheries that occur offshore with high bycatch and documented fisheries-related injuries on nesting leatherback turtles at the same time. On the western oceanic nesting beaches of French Guiana, injuries consistent with fisheries interactions (*e.g.,* scars, wounds) were recorded on 8.4 percent (n = 1,259) of nesting females in 2003 (Morisson *et al.* 2003). In Venezuela, 55 percent of strandings from 2001 to 2007 (n = 57) exhibited evidence of fisheries interactions (Barrios-Garrido and Montiel-Villalobos 2016). Most recently, an injury assessment of 228 leatherback turtles from two foraging areas off the Atlantic coast of Canada and Trinidad nesting beaches found 19 percent of turtles exhibited injuries indicative of entanglement in lines or nets, and 17 percent showed evidence of hooks; 62 percent of turtles assessed exhibited a minimum of one external injury (Archibald and James 2018).

Fisheries bycatch also occur in the Mediterranean and eastern North Atlantic Ocean. Casale *et al.* (2003) analyzed 411 records of leatherback turtles in the Mediterranean, of which 152 were collected from Italy. Most of these records were from fishery captures (n = 170) or found in unknown circumstances (n = 127). Of those reported by fishermen, set or drift nets had the highest number of interactions (29.4 percent), followed by unknown fishing equipment (22.9 percent), longlines (20.6 percent), unspecified nets (12.9 percent), other fishing equipment (9.4 percent), and trawls (4.7 percent). The main fisheries affecting turtles in the Mediterranean (all turtle species, not just leatherback turtles) are Spanish and Italian surface longlines, North Adriatic Italian trawls, Tunisian trawls, Turkish trawls, Moroccan driftnets, and Italian driftnets (Camiñas 2004). The same types of fishing gear from other nations also affect turtles, but the bycatch numbers are lower (Camiñas 2004). Stranding records from Portugal from 1978 to 2013 found that 49 of 275 leatherback turtles exhibited evidence of fishery interactions (the cause of stranding could not be determined in most cases due to decomposition state; Nicolau *et al.* 2016). Multifilament nets accounted for approximately 41 percent of the strandings, followed by monofilament nets, traps/pots, and longlines. Coastal artisanal fisheries were recognized as a particular threat in Portugal.

Based upon these summary reports and stranding assessments, it is clear that fisheries have a large impact on the NW Atlantic DPS. In the following paragraphs, we review information on specific gear interactions, including the following fisheries: Gillnet, longline, trawl, pot/trap, and other.

Gillnet Fisheries

Gillnet fisheries are common throughout the range of this DPS. Due to the nature of the gear and fishing practices (*e.g.,* relatively long soak times), bycatch in gillnets is among the highest source of direct sea turtle mortality (Upite *et al.* 2013; Wallace *et al.* 2013; Upite *et al.* 2018). Upite *et al.* (2018) evaluated observed fishery interactions and post-interaction mortality and determined a 79 percent sea turtle mortality rate for Northeast and Mid-Atlantic gillnet gear from 2011 to 2015. Wallace *et al.* (2013) calculated leatherback bycatch in gillnets throughout the NW Atlantic Ocean of 0.015 turtles/set, with a 21 percent median mortality rate (not considering post-interaction mortality). This gear was classified as having a relatively high bycatch impact on the NW Atlantic leatherback population. Small scale fisheries are of particular concern, given the magnitude of bycatch, nearshore distribution, and limited monitoring (Lewison *et al.* 2015). When nets are used in waters off nesting beaches, where leatherback turtles mate, nesting females and mature males are often captured and killed.

The largest documented bycatch of leatherback turtles in gillnet gear occurs off the coast of Trinidad. Lee Lum (2006) estimated that more than 3,000 leatherback turtles were captured by coastal surface gillnets off Trinidad annually, with an approximate 30 percent mortality rate. These captures involved adult turtles, occurring off the north and east coasts of Trinidad during January to August, *i.e.,* the breeding and nesting season, when nesting females and adult males occur in the waters off nesting beaches (Lee Lum 2006). Gilman *et al.* (2010) extrapolated leatherback bycatch estimates (Lee Lum 2006; Gearhart and Eckert 2007) to the entire Trinidad Spanish mackerel and king mackerel surface gillnet fishery, and estimated that almost 7,000 turtles were captured in 2000. Additionally, Eckert *et al.* (2013) worked with drift gillnet fishermen to identify leatherback bycatch hot spots off the north and east coasts of Trinidad (where the nesting beaches are), with capture probability increasing from March to July and a secondary peak in October.

Whereas most of the documented leatherback bycatch off Trinidad occurs in surface drift gillnet fisheries, bottom set gillnet fishing also captures leatherback turtles (Gass 2006; S. Eckert, WIDECAST, pers. comm., 2018). The magnitude of effort and turtle bycatch in this fishery are lower than for surface nets, but mortality rates are higher (approximately 70 percent; Gass 2006). As such, the bottom set gillnet fishery is thought to have a comparable level of mortality to the drift gillnet fishery (approximately 500 to 1,000 leatherback turtles annually; Gass 2006; S. Eckert, WIDECAST, pers. comm., 2018). The Sea Turtle Recovery Action Plan for the Republic of Trinidad and Tobago noted that drowning in gillnets is that nation's most significant cause of sea turtle mortality (Trinidad and Tobago Forestry Division *et al.* 2010). Bond and James (2017) tracked a female from Canadian waters to a nesting beach off Trinidad, but the turtle was confirmed dead, entangled in coastal fishing gear, just prior to the date of her first predicted nesting event. Venezuelan fishers have also been seen hauling leatherback turtles from Trinidad waters into their boats (Brautigam and Eckert 2006). Together, drift and bottom-set gillnets off the Trinidad beaches, which host the largest nesting aggregation in the DPS, are estimated to kill well over 1,000 leatherback turtles annually, and they thus pose a large threat to the DPS.

High levels of gillnet bycatch occur in other Caribbean and South American nations, also off major nesting beaches. In French Guiana, bycatch was confirmed to be high in the Maroni estuary (Chevalier 2001; Girondot 2015). In 2003, 26 leatherback turtles were caught in coastal gillnets and released off the Cayenne and Montjoly nesting sites (Gratiot *et al.* 2003 in TEWG 2007). Delamare (2005) conducted fishermen interviews and estimated an average of 1,149 leatherback captures in 2004 and

2005 by bottom-set or drifting gillnets in French Guiana. No estimate of mortality was provided, but it is likely similar to Trinidad fisheries, *i.e.,* 70 and 30 percent, respectively. In Suriname, a World Wildlife Fund survey of fishermen estimated leatherback bycatch in drifting gillnets at 584 in 2006, 174 in 2010, and 424 in 2012 (Madarie 2006; Madarie 2010; Madarie 2012). Most of the turtles were captured alive. In Colombia, 10 to 40 leatherback turtles are killed annually by gillnets (Patiño-Martínez *et al.* 2008). Longline and driftnet gillnet fisheries in Moroccan waters off the northwestern Africa coast capture approximately 100 leatherback turtles annually (Benhardouze *et al.* 2012).

Although not at as high a rate as in the Caribbean (based upon observed interactions), gillnet bycatch occurs in U.S. and Canadian waters. Although South Carolina, Georgia, Florida, Louisiana, and Texas have prohibited gillnets in their State waters, active gillnet fisheries remain in other states and U.S. Federal waters. No cumulative estimates of leatherback bycatch in gillnet fisheries in U.S. waters are available due to the limited observed interactions. However, from 2003 to 2017, fishery observers recorded lethal and non-lethal bycatch in fixed sink, drift sink, and drift floating gillnets throughout the U.S. Atlantic Exclusive Economic Zone (EEZ) and GOM (NMFS unpublished data). From 2012 to 2016, 27 leatherback turtles (coefficient of variation = 0.71, 95 percent CI over all years: 0–68) were bycaught with 21 mortalities in sink gillnet gear in the Georges Bank and Mid-Atlantic regions (Murray 2018). From 1989 to 1998, U.S. drift pelagic gillnets captured 54 leatherback turtles, but that gear is no longer used. Hamelin *et al.* (2017) reviewed leatherback entanglement records reported by Canada in Atlantic Canadian waters between 1998 and 2014. Gillnets, mainly targeting groundfish, were involved in 24 of 205 entanglements (11.7 percent), particularly in Newfoundland and Labrador (n = 15). Often, gillnet entanglements involve the vertical lines associated with gear (M. James, DFO, pers. comm., 2019).

Gillnet bycatch occurs in the eastern North Atlantic Ocean and in the Mediterranean Sea. As in other areas, sea turtles have the potential to interact with set gillnets and drift gillnets. The United Nations (UN) established a worldwide moratorium on drift gillnet fishing effective in 1992; the General Fisheries Commission for the Mediterranean prohibited driftnet fishing in 1997; a total ban on driftnet fishing by the European Union fleet in the Mediterranean went into effect in 2002; and the International Commission for the Conservation of Atlantic Tunas (ICCAT) banned driftnets in 2003. Nevertheless, unregulated driftnetting continued to occur in some areas (*e.g.,* the Mediterranean Sea and off Europe; Pierpoint 2000; Camiñas 2004). In the Atlantic Ocean, leatherback bycatch has been reported from NE Atlantic tuna driftnet fisheries by English, French and Irish vessels (Pierpoint 2000). Of 20 leatherback turtles found in nets in British and Irish waters (1980 to 2000), eight were caught in the NE Atlantic tuna driftnet fishery (with 25 percent mortality) and one was caught in a hake gillnet (Pierpoint 2000).

Historically, driftnet fishing in the Mediterranean Sea caught large numbers of sea turtles. And today an estimated 600 illegal driftnet vessels operate in the Mediterranean, including fleets based in Algeria, France, Italy, Morocco, and Turkey (Environmental Justice Foundation 2007). Out of 411 records of leatherback turtles (stranded, captured, sighted, or found in unknown circumstances) in the Mediterranean Sea, 170 turtles were captured by fishermen, of which 29.4 percent were caught by set or drift nets (Casale *et al.* 2003). Driftnets and gillnets in Greece, Israel, Italy, Tunisia and Turkey have reported documented leatherback interactions, and occasional leatherback bycatch occurs in Croatian artisanal gillnet fisheries (Camiñas 2004; Ergene and Ukar 2017). In particular, Karaa *et al.* (2013) reviewed 36 leatherback bycatch records from Tunisia fisheries in the Gulf of Gabes, and found that gillnets are the dominant threat to leatherback turtles in the region. A similar result (*e.g.,* gillnets being a high threat to leatherback turtles in the area) was found in the Adriatic Sea (Lazar *et al.* 2012). The first leatherback recorded on the Aegean coast of Turkey was caught in a gillnet (Taskavak *et al.* 1998). Further, a review by Casale (2008) found that leatherback turtles are taken in the drift gillnet fishery in Spain at a rate of 0.065 turtles/day-boat.

Throughout the range of the NW Atlantic DPS, effective gillnet bycatch reduction measures have not been required, but measures to reduce leatherback bycatch have been discussed in some areas (*e.g.,* Trinidad; Eckert 2013). If nations have a closed season for fishing, at least in the nesting season (*e.g.,* Suriname; Madarie 2006), nesting females are afforded some level of protection from gillnet bycatch. Some nations have prohibited gillnet gear; St. Barthelemy does not allow trammel nets in its territorial waters and St. Lucia prohibits fishing within 100 meters of shore to protect nesting turtles. There are gillnet and trammel net restrictions in Curacao (Ministry of Health, Environment, and Nature 2014, UN Environment Programme 2017). In the United States, gillnets with stretched mesh seven inches and larger are prohibited at certain times off North Carolina and Virginia to protect sea turtles (50 CFR 223.206(d)(8); 71 FR 24776, April 26, 2006). While no gear modifications are currently required for U.S. gillnet fisheries, Federal U.S. fisheries are subject to section 7 of the ESA, 16 U.S.C. 1536(a)(2), and through formal consultations on specific fisheries, measures may be required to minimize the impact of incidental take in gillnets (NMFS 2013). Regardless of some of these protective measures, gillnet bycatch (especially off nesting beaches) results in the loss of thousands of mature individuals annually.

Longline Fisheries

Leatherback turtles are known to interact with longline fishing gear, most commonly pelagic longlines (Lewison *et al.* 2004; Zollett 2009; Wallace *et al.* 2010; Wallace *et al.* 2013). There is significant concern over the effects of pelagic longline fishing, which extends globally throughout temperate and tropical waters, including several high pressure fishing areas in the North Atlantic Ocean (Fossette *et al.* 2014; Gray and Diaz 2017). In international waters, numerous flag states have high seas longline fisheries that frequently catch leatherback turtles (Lewison *et al.* 2004). Individuals are found entangled and hooked in this gear, mostly by the flippers (Witzell and Cramer 1995; Coelho *et al.* 2015; Huang 2015). Leatherback bycatch in longlines throughout the NW Atlantic Ocean was calculated at 0.062 turtles per set, classifying the gear as a relatively low bycatch impact relative to other sea turtle populations (Wallace *et al.* 2013; Lewison *et al.* 2015). However, because longline fisheries are widespread across leatherbacks' distribution and use millions of hooks each year, they pose a large threat to the NW Atlantic DPS and are estimated to kill thousands of individuals (mature and immature) annually.

Pelagic longline fishing is widespread throughout the range of the DPS and involves a number of nations, so an accurate estimate of total bycatch is difficult to obtain. In the Atlantic Ocean from 2002 to 2013, the largest longline fishing fleets belonged to Taiwan, Japan, Spain, Belize, and China, with the Taiwanese fleet comprising the largest distant-water longline effort throughout

the region (Angel 2014; Huang 2015). In an assessment of the impact of ICCAT fisheries on sea turtles, Gray and Diaz (2017) estimated leatherback interactions with pelagic longlines in the ICCAT area from 2012 to 2014 (15 to 16 fleets). Using a combination of published and assigned sea turtle bycatch rates as a function of estimated fishing effort submitted to ICCAT by its members, Gray and Diaz (2017) found a high degree of overlap in the central North Atlantic Ocean and equatorial waters (some of which are outside this DPS). Within the NW Atlantic region, an estimated 7,138 leatherback interactions occurred in 2012, 6,036 in 2013 and 4,991 in 2014 (Gray and Diaz 2017). Applying a reasonable estimated mortality rate of 21.4 percent, as seen in other high seas pelagic longline gear (Huang 2015), results in an average annual estimated mortality of 1,296 leatherback turtles from 2012 to 2014. However, this is likely an underestimate of total mortality, as the high seas mortality rate in Huang (2015) was based upon the disposition of the turtle when boarded and therefore did not account for post-interaction mortality; 240 of 459 leatherback turtles caught from 2002 to 2013 were alive and 121 were of unknown status (Huang 2015). Angel *et al.* (2014) conducted a risk assessment of turtles from the impacts of tuna fishing in the ICCAT region and found the NW Atlantic RMU (which is comparable to the NW Atlantic DPS; Wallace *et al.* 2010) has high-moderate vulnerability to longline gear, with as many as 270 million longline hooks annually from 2000 to 2009. In particular, Fossette *et al.* (2014) analyzed leatherback satellite tracks (converted to densities) overlaid with longline fishing effort from 1995 to 2009 in the Atlantic Ocean. In the North Atlantic Ocean, a total of four seasonal high-susceptibility areas were identified: one in the central northern Atlantic in international waters, one along the east coast of the United States, and one each in the Canary and Cape Verdean basins (Fossette *et al.* 2014). These areas partly occurred in the EEZs of eight nations (Cape Verde, Gambia, Guinea Bissau, Mauritania, Senegal, Spain/Canaries, United States, and Western Sahara). Given the species' flexible diving behavior, it is reasonable to expect that turtles are likely to encounter pelagic longlines throughout the Atlantic Ocean, regardless of whether they are engaged in foraging or migratory behavior (Fossette *et al.* 2014).

Bycatch in U.S. Atlantic and GOM pelagic longlines has been extensively studied in the last decade. Current estimates of leatherback interactions with the U.S. Atlantic pelagic longline fishery are lower than previous years. In the late 1990s and early 2000s, estimates of Atlantic U.S. pelagic longline bycatch were around 1000 leatherback turtles annually (NMFS 2001; Yeung 2001; NMFS 2018), with bycatch rates of about 0.15 to 0.5 turtles per 1000 hooks (Watson *et al.* 2005). In 2005, after the United States required pelagic longline gear modifications (50 CFR 635.21), the fleet was estimated to have interacted with 351 leatherback turtles outside experimental fishing operations (Walsh and Garrison 2006). NMFS (2018) estimated 239 leatherback interactions in the U.S. Atlantic pelagic longline fishery in 2011, 596 in 2012, 363 in 2013, 268 in 2014, 299 in 2015, and 339 in 2016. The majority of interactions occurred in the GOM, Mid-Atlantic Bight, Northeast Coastal, and Northeast Distant areas (NMFS 2018). The post-interaction mortality estimate for the most recently available 3-year period (2013 to 2015) for leatherback turtles is 30.13 percent (L. Desfosse, NMFS, pers. comm., 2018). Based on the average leatherback interaction estimate for the entire U.S. pelagic longline fleet from 2011 to 2016 (351), the estimated average annual mortality for the U.S. pelagic longline fishery is 106 leatherback turtles.

Leatherback interactions also occur in Canadian pelagic longline fisheries. From summer to fall, primarily on the Scotian Shelf, encounters with leatherback turtles have been documented in the large pelagic longline fishery since 2001 (DFO 2012). With observer coverage ranging from 5 to 30 percent since 2001, there were 102 reported interactions with pelagic longlines from 2001 to 2005, and 36 from 2006 to 2010 (DFO 2012). Mortality rates are estimated to be in the range of 21 to 49 percent, resulting in an estimated mortality of 13 to 44 leatherback turtles annually. Based on an analysis of Canadian observer data from 2002 to 2010, the bycatch rate in this fishery is estimated to have declined from 120–190 leatherback turtles annually from 2002 to 2006 to 60–90 leatherback turtles annually from 2006 to 2010, largely as a result of gear modifications (Hanke *et al.* 2012).

In the Mediterranean Sea, longlining is prevalent. Drifting longlines targeting swordfish (*Xiphias gladius*), albacore (*Thunnus alalunga*), and bluefin tuna (*T. thynnus*) are considered to be the most dangerous fishing gear for turtles in the Mediterranean Sea (Lucchetti and Sala 2010). Drifting longlines (mainly for albacore tuna) in Spain, Italy, Greece, and Albania have documented leatherback interactions (Camiñas 2004). In the western Mediterranean, swordfish longlines appeared to be responsible for most of the leatherback bycatch and entanglements (Camiñas 1998; Camiñas 2004). Casale *et al.* (2003) reviewed bycatch rates for longline fisheries targeting swordfish and estimated the average Mediterranean longline bycatch rates at 0.0025 leatherback turtles/1000 hooks, with a maximum rate of 0.0510 leatherback turtles/1000 hooks in the Tyrrhenian Sea of Italy (Casale *et al.* 2003; Casale and Margaritoulis 2010). Of 170 leatherback fishery captures in fisheries from the Mediterranean Sea, approximately 35 involved longlines (Casale *et al.* 2003). While leatherback turtles are encountered in Mediterranean longlines, loggerheads are the most common species caught; only 0.1 percent of turtles captured during an observer program in Spain, Italy and Greece were leatherback turtles (3 out of 2,370 observed turtles; Laurent *et al.* 2001). However, given the extensive longline effort in the Mediterranean Sea (Casale 2008), leatherback bycatch in the Mediterranean is still a concern. Lewison *et al.* (2004) estimated a range of 250 to 10,000 leatherback turtles bycaught in the Mediterranean in 2000, with 6 percent observer coverage.

Longline bycatch of leatherback turtles in the range of the NW Atlantic DPS also occurs in waters off Cape Verde (Melo and Melo 2013; Coelho *et al.* 2015), Morocco (Benhardouze *et al.* 2012), and Brazil (Pacheco *et al.* 2011). Given the wide distribution of both pelagic longline gear and leatherback turtles, bycatch of individuals in longline gear can occur wherever and whenever the gear and sea turtle distribution overlap.

Large circle hooks (non-offset) have been found to reduce leatherback bycatch by as much as 55 percent compared to traditional J-style hooks (Andraka *et al.* 2013; Coelho *et al.* 2015). While the vessels of certain nations may employ large circle hooks, there are no obligations for international longline fleets to adopt such bycatch mitigation measures (Richardson *et al.* 2013). In 2005, an ICCAT resolution encouraged circle hook research (ICCAT 2005), but no legally binding measure to require circle hooks exists (Gilman 2011). Without the widespread use of non-offset circle hooks, it is likely that the high bycatch rates of leatherback turtles in pelagic longline gear will continue throughout the North Atlantic high seas fisheries.

Since 2004, the United States has issued regulations that require

modifications to pelagic longline gear in the U.S. Atlantic and GOM to reduce the bycatch and post-interaction mortality of sea turtles; these regulations (50 CFR 635.21(c)(2)) specify hook type and size (18/0 or 16/0 circle hooks depending on the area), bait type, use of turtle disentangling equipment and handling guidelines. Swimmer *et al.* (2017) recently analyzed pelagic longline interactions before (1992 to 2001) and after (mid-2004 to 2015) these regulations were promulgated. Throughout the study period, 844 leatherback turtles were captured. Overall, turtle bycatch was highest in the Northeast Distant statistical reporting area (0.3 turtles/1000 hooks), followed by the Northeast Coastal, GOM, and Caribbean areas. Bycatch rates were higher for years prior to 2004; after the regulations, Atlantic leatherback bycatch rates declined by 40 percent (0.13 to 0.078 turtles/1000 hooks). Within the Northeast Distant area alone, where additional restrictions include a large circle hook (18/0) and limited use of squid bait, rates declined by 64 percent (0.44 to 0.16 turtles/1000 hooks; Swimmer *et al.* 2017). Gilman and Huang (2017) found similar results: Fish versus squid bait lowered catch rates of leatherback turtles, and wider circle hooks reduced leatherback catch rates relative to narrower J and tuna hooks. Capture probabilities are lowest when using a combination of circle hook and fish bait.

Efforts have been made to reduce interactions in Canadian waters as well. Circle hook use has been recommended in the swordfish-directed Canadian longline fleet since 2003, whereas corrodible circle hooks have been required in the pelagic longline fishery since 2012 (DFO 2013; C. MacDonald, DFO, pers. comm., 2019). There is no mandatory hook size restriction for the Canadian longline fleet, but license holders almost exclusively use 16/0 circle hooks (C. MacDonald, DFO, pers. comm., 2019). De-hooking and line-cutting kits are required on swordfish longline fishery vessels (C. MacDonald, DFO, pers. comm. 2019).

Some fishing fleets in the Atlantic Ocean (*e.g.,* U.S., Canadian, ICCAT vessels) use large circle hooks and modified bait, but these measures are not required in all areas (Watson *et al.* 2005; Gilman *et al.* 2007; Gilman 2011). Some nations in the Wider Caribbean Region have implemented circle hook provisions; in Belize, the high seas fishing fleet adopted the use of circle hooks on 10 percent of the fleet and are required to report capture of sea turtles by longlines (Belize Fisheries Department 2017). Because the measures are not widely required, the number of vessels that do not employ bycatch reduction measures is likely higher than the number of vessels that do, and so we conclude on the basis of the best available information that leatherback bycatch in pelagic longline fisheries is still a significant threat (Lewison *et al.* 2015).

Leatherback interactions with bottom longlines also occur. Directed shark fisheries using bottom longlines in the Atlantic Ocean and GOM may capture or entangle leatherback turtles (NMFS 2012), and the GOM reef fishery is also anticipated to take leatherback turtles (NMFS 2011). On February 7, 2007, NMFS published a rule that required commercial shark bottom longline vessels to carry the same dehooking equipment as the pelagic longline vessels; this rule was promulgated to reduce post-interaction mortality (72 FR 5633).

The Canadian east coast groundfish longline fishery targets a wide variety of groundfish species, including cod, haddock, pollock and white hake. Observer coverage has ranged from 2 to 30 percent depending on area, and there have been no reported interactions of leatherback turtles in the observer database since 2001 (DFO 2012). However, there have been three reports from Quebec logbooks and 10 reports of interactions with groundfish longline gear to non-governmental groups (DFO 2012). This indicates that the risk of interactions in this gear may be higher than documented through the observer program.

Bottom longlines are also used in the Mediterranean Sea (Casale 2008). While there have not been any documented leatherback captures from this gear type, loggerheads have been caught at high rates in Tunisia, Libya, Greece, Turkey, Egypt, Morocco, and Italy (Casale 2008), and interactions with leatherback turtles are possible.

Commercial pelagic longline fisheries do not operate in some Caribbean nations, such as in Panama where effort is limited to vessels under six tons (Executive Decree 486, December 28, 2010). However, other Caribbean nations allow commercial pelagic longline fishing, and many find leatherback turtles with longline hooks (Réserve Naturelle de l'Amana data in Berzins, Office National de la Chasse et de la Faune Sauvage, pers. comm., 2018 and KWATA data in Berzins 2018). While no longlines exist in the Caribbean Dutch nations of Bonaire, St. Eustatius and Saba, there are efforts to introduce circle hooks into the trolling fishery (Ministry of Economic Affairs 2014). We consider longline bycatch to be a widespread threat to this DPS, likely resulting in the loss of thousands of individuals annually.

Trawl Fisheries

Leatherback turtles may interact with bottom and midwater trawl gear throughout the North Atlantic Ocean. The highest reported trawl bycatch of leatherback turtles of the NW Atlantic DPS is likely from the southeastern U.S. shrimp trawl fishery. Epperly *et al.* (2003) anticipated an average of 80 leatherback mortalities a year in shrimp trawl interactions, dropping to an estimate of 26 leatherback mortalities in 2009 due to reduction in fishing effort (Memo from Dr. B. Ponwith, SEFSC, to Dr. R. Crabtree, SERO, January 5, 2011). The 2014 NMFS Southeast U.S. Shrimp Fishery Biological Opinion estimated 167 annual leatherback captures (144 mortalities) in the Atlantic Ocean and GOM shrimp otter trawl fishery, with an additional 34 captures in try nets (single nets testing for shrimp concentrations; NMFS 2014). The majority of these interactions were in the GOM. However, a more recent study of the GOM and southeastern U.S. Atlantic coast shrimp otter trawl fishery found fewer leatherback captures: From 2007 to 2017, only 3 leatherback turtles were reported in the observer data (with coverage levels around 2 percent of nominal days at sea; Babcock *et al.* 2018).

In the mid-Atlantic and northeastern U.S. waters, observers reported 9 leatherback captures in bottom otter trawl gear and 5 captures in midwater trawls from 1993 to 2017 (NMFS unpublished data 2018). In the Wider Caribbean Region, leatherback turtles are reported captured in trawls in French Guiana (Ferraroli *et al.* 2004; TEWG 2007), Guyana (Reichart *et al.* 2003), Suriname (Madarie 2010), Trinidad (Forestry Division *et al.* 2010), and Venezuela (Alio *et al.* 2010).

Since 1980, there were eight reports of leatherback turtles incidentally captured by trawl gear in British and Irish waters (Pierpoint 2000). In the Mediterranean Sea, leatherback bycatch in bottom trawls off Tunisia (Caminas 2004) and Egypt (Casale 2008) has also been reported.

Trawl bycatch reduction measures (*e.g.,* turtle excluder devices (TEDs) are in place in some nations. The southeastern U.S. shrimp fishery has required TEDs since the early 1990s. However, TEDs that were initially required for use in the U.S. Atlantic Ocean and GOM shrimp fisheries were less effective for leatherback turtles as compared to smaller, hard-shelled turtle species, because the TED openings were

too small to allow leatherback turtles to escape. To address this problem, NMFS issued a final rule on February 21, 2003, to amend the TED regulations (68 FR 8456) to require modified TEDs in the southeastern United States (Atlantic Area and GOM Area) that exclude leatherback turtles, as well as large benthic immature and sexually mature loggerhead and green sea turtles. TEDs are also required in summer flounder trawls operating off Virginia (south of Cape Charles) and North Carolina (64 FR 55860, October 15, 1999; 67 FR 19933, April 17, 2002).

TEDs are also used outside the United States. Shrimp harvested with commercial fishing technology that may adversely affect sea turtles generally cannot be imported into the United States per Public Law 101–162, Section 609(b), enacted on November 21, 1989 (16 U.S.C. 1537 note). The import ban does not apply to nations that have adopted sea turtle protection programs comparable to that of the United States (*i.e.,* require and enforce TED use) or whose fishing activity does not present a threat to sea turtles (*e.g.,* nations fishing in areas where sea turtles do not occur). Although most certifications are done on a national basis, the U.S. State Department guidelines allow some individual shipments of TED-harvested shrimp from uncertified countries with appropriate documentation. Approximately 40 nations are currently certified to import shrimp into the United States, and five fisheries have been determined as having their products eligible for importation with proper documentation (83 FR 22739, May 16, 2018). Specifically, on May 8, 2018, the U.S. State Department certified 13 nations on the basis that their sea turtle protection programs (*e.g.,* use of TEDs) are comparable to that of the United States: Colombia, Costa Rica, Ecuador, El Salvador, Gabon, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Nigeria, Panama, and Suriname. It also certified 26 shrimp-harvesting nations and one economy as having fishing environments that do not pose a danger to sea turtles. In addition, one fishery from a non-certified nation within the range of the NW Atlantic DPS (the French Guiana domestic trawl fishery) has been authorized to import shrimp products, provided certain documentation accompanies the imports. Sixteen nations have shrimping grounds only in cold waters where the risk of taking sea turtles is negligible: Argentina, Belgium, Canada, Chile, Denmark, Finland, Germany, Iceland, Ireland, the Netherlands, New Zealand, Norway, Russia, Sweden, the United Kingdom, and Uruguay. Ten nations (Bahamas, Belize, China, the Dominican Republic, Fiji, Jamaica, Oman, Peru, Sri Lanka, and Venezuela) and Hong Kong only harvest shrimp using small boats with crews of less than five that use manual rather than mechanical means to retrieve nets or catch shrimp using other methods that do not threaten sea turtles. Use of such small scale technology is not believed to adversely affect sea turtles. For those nations within the geographical range of the NW Atlantic DPS, the threat of shrimp trawling is minimized with TED use.

TEDs are also required in trawl fleets in Trinidad, Belize, Brazil, and Venezuela, but those gear modifications do not currently meet the U.S. certification protocol. On June 20, 2019, the European Union passed a regulation (PE–CONS 59/1/19 Rev 1) that requires technical measures concerning: The taking and landing of marine biological resources; the operation of fishing gear; and the interaction of fishing activities with marine ecosystems. Specific to sea turtles, the regulation requires shrimp trawl fisheries to use a TED in European Union waters of the Indian and West Atlantic Oceans, consisting of waters around Guadeloupe, French Guiana, Martinique, Mayotte, Réunion and Saint Martin.

TEDs are not required in Mediterranean trawls. Some nations, like Belize, St. Barthelemy, Venezuela (industrial fishing only), and the Caribbean Netherlands (Bonaire, St. Eustatius, Saba), have banned trawling (Bolivarian Republic of Venezuela Official Gazette N° 5.877, March 14, 2008; Ministry of Economic Affairs 2016; Belize Fisheries Department 2017), and Costa Rica does not allow the issuance of any new permits for shrimp trawling (Costa Rica Ministry of Environment and Energy 2017). Curacao prohibits fishing in its territorial waters and inland bays with dragnets (and certain fish traps). These initiatives reduce the impact of trawling on leatherback turtles.

Pot/Trap Fisheries

Leatherback turtles are commonly entangled in the vertical lines of pot and trap gear. Entanglements have been mostly reported from U.S. and Canadian waters, but line entanglements have occurred in other areas where similar gear is used (*e.g.,* Britain; Godley *et al.* 1998).

Due to high numbers of entanglement reports, a Sea Turtle Disentanglement Network (STDN) was established by NMFS in the northeastern United States (Maine to Virginia) in 2002. This program relies primarily on reports from the public and subsequent documentation and disentanglement by trained responders. From 2008 to 2017, 267 leatherback entanglements were reported in vertical fishing line (STDN unpublished data). Of those fisheries that could be identified, 79 were lobster, 21 were fish traps or fish lines, 18 were conch (or a combination of conch and lobster), and 5 were crab gear; 144 entanglements were from unidentifiable fishing gear. While most unknown vertical line entanglements likely involve pot/trap gear, this cannot always be conclusively determined. The majority of the leatherback turtle reports (67 percent) were from Massachusetts waters. Of the 267 leatherback entanglements, 221 were released alive and 46 were found dead.

Given the nature of their injuries, it is probable that not all animals released alive from entanglements survived. Currently there are limited empirical data on leatherback survival from pot/trap entanglements. Innis *et al.* (2010) found that at least some of the disentangled individuals were able to resume normal behavior and migratory patterns, but two leatherback turtles were entangled at least twice, and a third disentangled turtle had significant forelimb skin and muscle injuries. The effects of entanglement may be sub-lethal initially, but could result in subsequent mortality. By assessing the injuries experienced by each turtle that was documented to have been entangled and using NMFS' post-interaction mortality guidance (NMFS 2017), the resulting mortality rate for northeastern U.S. vertical fishing line interactions for all sea turtle species combined was calculated at 55 percent from 2013 to 2017 (NMFS unpublished data). When the mortality estimate includes those turtles that were not disentangled and assumed to have died, the rate increases to 61 percent. As a result (and applying the latest 5 year mortality rate to the last 10 years of entanglement data), 147 to 163 leatherback turtles died from vertical fishing line gear (most of which were likely pot/trap gear) in the northeastern U.S. waters from 2008 to 2017, based on opportunistically reported data. An additional 36 leatherback turtles were reported entangled in trap/buoy lines from North Carolina to Texas from 2008 to 2017 (STSSN unpublished data). Of those 36 entanglements, 32 turtles were found alive and 4 dead, but these southeastern U.S. numbers do not incorporate potential post-interaction mortality so the total lethal interactions were likely higher. Further, this information is likely an underestimate of actual

entanglements and mortality given the opportunistic reporting nature of the program; therefore, it is clear that leatherback interactions with vertical fishing lines are a threat to this DPS.

Entanglements in Canadian waters are also frequently reported under circumstances similar to the U.S. STDN program, *i.e.,* opportunistically by fishermen or the public. Between 1998 and 2014, 205 leatherback entanglements were reported in Canada along the Atlantic coast, with most from Nova Scotia (136) and Newfoundland (40; Hamelin *et al.* 2017). Entanglements mostly involved pot fisheries (44 percent; n = 91), including snow crab (n = 37), inshore lobster (n = 31), rock crab (n = 10), whelk (n = 8), and hagfish (n = 3) fisheries. Trap net fisheries were involved in 26 percent of the entanglements (n = 53). Of the overall 205 reports, the majority of turtles were reported alive and successfully released (n = 174), and the other 15 percent (n = 31) were reported dead in gear. However, the number of dead turtles is likely an underestimate of actual entanglement-associated mortality (Hamelin *et al.* 2017).

Leatherback turtles are also found entangled in vertical fishing lines in European waters. Since 1980, 83 leatherback turtles were bycaught in British and Irish waters, with the method of capture identified in 58 cases (Piedpoint 2000). The majority of captures (n = 36) were rope entanglements, usually buoy lines used in pot fisheries for crustaceans or whelk, with a 61 percent recorded mortality (Pierpoint 2000).

Some types of aquaculture use vertical lines similar to pot/traps and may pose an entanglement risk (Price *et al.* 2017). Four leatherback turtles (two alive, two dead) in Canadian and U.S. waters have been opportunistically reported in aquaculture gear to date (Price *et al.* 2017). However, as this industry is anticipated to grow in the near future, leatherback interactions with aquaculture lines, and subsequent injury or mortality, may increase.

These data comprise the best available information on pot/trap fishery interactions with the NW Atlantic DPS. However, due to the high probability of underreporting leatherback turtle entanglements by fishers, the ad hoc nature of public reporting, and the uncertainty about post-release survivorship, the leatherback mortality rate due to entanglements in vertical lines is likely underestimated (Hamelin *et al.* 2017). Estimates indicate that approximately 622,000 vertical lines are deployed from fishing gear in U.S. waters from Georgia to the Gulf of Maine (Hayes *et al.* 2018). There are currently no existing mitigation measures to reduce leatherback bycatch in vertical fishing lines, but efforts to reduce the amount of vertical lines in the water to assist with large whale conservation in the United States may help reduce the impact to the DPS (*https://www.greateratlantic.fisheries.noaa.gov/protected/whaletrp/*).

Other Gear Types

Leatherback turtles are also susceptible to bycatch in pound nets, weirs, and purse seine fisheries. In the United States, pound nets set in Virginia waters have entangled leatherback turtles. On June 23, 2006, NMFS issued a regulation (71 FR 36024) requiring offshore pound nets set in a portion of the lower Chesapeake Bay from May 6 through July 15 of each year to use modified pound net leaders, a gear modification consisting of vertical hard lay lines spaced at least two feet apart on the top portion of the leader, and eight inch or smaller stretched mesh on the bottom portion of the leader. From 2013 to 2017, 16 leatherback turtles have been found entangled in the hard lay lines of the leaders, of which two were dead (NMFS 2018). While individuals may continue to be entangled in modified pound net leaders, the impact of the pound net fishery on the NW Atlantic DPS is likely minor given the few nets set in the lower Chesapeake Bay using this gear (approximately four to six) and the frequency of live interactions. From 2008 to 2017, the STDN also documented leatherback captures in weirs set off Massachusetts; these turtles were found alive, either entangled in the netting (n = 2) or free swimming in the weir (n = 4).

Purse seines are used to catch a variety of fish species and are commonly used in the ICCAT area to catch tuna (Angel *et al.* 2014). Leatherback captures have occurred in Atlantic purse seine fisheries, and this bycatch may have a minor impact on the DPS. In British and Irish waters, two leatherback turtles were reported to be captured in purse seine gear between 1980 and 2000 (Pierpont 2000). Clermont *et al.* (2012) reported a total capture of 67 leatherback turtles in more than 9000 observed Atlantic purse seine sets between 1995 and 2011, with only four found dead (representing 10 percent observer coverage). Most of the interactions were adults (75 percent). However, not all of the purse seine effort reported by Clermont occurs in the NW Atlantic DPS range. Thus, purse seine interactions with this DPS may be a fraction of the total captures reported. For those purse seines in the ICCAT region using fish aggregating devices and for those setting over free-swimming tuna schools, the effort (through 2011) was concentrated in the tropics, off West Africa between Namibia and Mauritania and off Venezuela (Clermont *et al.* 2012; Angel *et al.* 2014). While leatherback and purse seine interactions may occur where distribution and effort overlap, the magnitude of the purse seine impacts on the NW Atlantic DPS is lower than the bycatch values presented in Clermont *et al.* (2012). Further, Angel (2014) found that the direct impacts on turtles from purse seine fishing operations appears to be minor in comparison to the impacts from longline fishing, especially as most purse seine captures are released alive.

Summary of Fisheries Bycatch

We conclude that most immature and adult leatherback turtles of this DPS are exposed to bycatch in multiple fisheries throughout their range. Bycatch in gillnet fisheries, in particular, is a major threat with high mortality rates (Lee Lum 2006; Gilman *et al.* 2010; Girondot 2015), annually killing thousands of NW Atlantic leatherback turtles. When set off nesting beaches, gillnets result in high mortality of nesting females and mature males (Lee Lum 2006; Eckert 2013). Longline bycatch is considered to be a widespread threat throughout the DPS and a primary source of leatherback mortality (Lewison *et al.* 2004), resulting in the death of thousands of leatherback turtles annually. In general, bycatch mortality reduces abundance by removing individuals from the population. When nesting females are killed, it also reduces productivity. We conclude that fisheries bycatch is the primary threat to the NW Atlantic DPS.

Vessel Strikes

Vessel strikes are a threat to the NW Atlantic DPS. Injuries from vessel strikes may include blunt force trauma and propeller parallel slicing wounds affecting the carapace, flippers, head, and/or underlying organs (Work *et al.* 2010). Most of what is known about vessel strikes comes from stranding records; the most extensive stranding network is found in the United States: The Sea Turtle Stranding and Salvage Network (STSSN). In the United States (Maine through Texas), 957 leatherback turtles were reported stranded, captured, or entangled from 2008 to 2017, and of those, 204 had probable vessel-related injuries (STSSN unpublished data). For example, at least 72 leatherback turtles stranded in

Massachusetts with vessel strike wounds between 2006 and 2018, including at least three adult females that had previously been documented nesting in the Caribbean (Dourdeville *et al.* 2018; Mass Audubon Wellfleet Bay Wildlife Sanctuary, unpublished data, 2019). It is sometimes difficult to determine whether the vessel related wounds occurred before or after the turtle died (Stacy *et al.* 2015). However, a recent study estimated that approximately 93 percent of Florida stranded turtles with vessel strike wounds were killed by those injuries (Foley *et al.* 2019). Based on the best available information, it is reasonable to conclude that approximately 190 leatherback turtles were killed as a result of vessel strikes in U.S. Atlantic and GOM waters from 2008 to 2017. This number is likely an underestimate as strandings represent a small percentage of turtles that are injured or die at sea, and many vessel strikes are not reported, detected, or recovered.

Vessel strikes have been documented in other nations as well, including in Portugal (Nicolau *et al.* 2016), Britain (Godley *et al.* 1998), and off the coast of Tunisia in the Strait of Sicily (Karaa *et al.* 2013; Caracappa *et al.* 2017). While there is very limited observational information on vessel collisions in Atlantic waters of Canada, there has been at least one recorded vessel strike (DFO 2012). More recently, an injury assessment of leatherback turtles (n = 228) on Atlantic Canada foraging grounds and on a Trinidad nesting beach found only 1.3 percent of turtles exhibited injuries consistent with vessel strikes (Archibald and James 2018). However, this low injury rate may indicate that there is low survivorship of vessel strikes. Females with carapace damage from propellers have been also observed on Costa Rican nesting beaches (de Haro *et al.* 2006).

Leatherback behavior data can help predict the potential for vessel strikes. Based on telemetry data for leatherback turtles (n = 15) on the northeastern U.S. shelf, leatherback turtles spent over 60 percent of their time in the top 10 m of the water column and over 70 percent of their time in the top 15 m (Dodge *et al.* 2014). Additional turtle-borne camera and autonomous underwater vehicle research in the waters off Massachusetts suggests that turtles surface frequently and engage in subsurface swimming (within the top 2 m) when occupying shallow, well-mixed, coastal environments, increasing the probability of a vessel strike (Dodge *et al.* 2018). Based on 24 free swimming leatherback turtles tagged in Canadian waters from 2008 to 2013, Wallace *et al.* (2015) found these leatherback turtles primarily occupied the upper 30 m of the water column and had shallow 4 to 6 minute dives. Given most leatherback activity occurs in the top 15 to 30 meters of the water column in temperate shelf waters of the NW Atlantic Ocean and vessel traffic is high along the U.S. East coast, the risk of vessel strikes is likely higher than the documented interactions would suggest (DFO 2012; Hamelin *et al.* 2014).

While observational data are limited, it is reasonable to conclude that, based upon the best available information, mortality due to vessel strikes may occur wherever vessel traffic and leatherback distribution (juvenile and adult) overlap. The impact is likely minimized in areas with less frequent vessel traffic (*e.g.,* less developed areas) and decreased leatherback turtle presence. Nesting females and mature males may be especially vulnerable to vessel strikes because they occur in the waters off nesting beaches, which are coastal areas where vessel traffic is more prevalent. Vessel strikes affect the NW Atlantic DPS by lowering abundance (if the interaction results in mortality) and affecting future reproductive potential (productivity) when nesting females are killed. We conclude that vessel strikes pose a threat to the NW Atlantic DPS.

Pollution

Pollution includes contaminants, marine debris, and ghost fishing gear. The detection of pollution impacts on leatherback turtles is opportunistic and thus likely underestimated. While plastic ingestion is not always fatal, it can reduce ability to feed, affect swimming behavior and buoyancy control, potentially lead to chemical contamination and chronic effects, and weaken physical condition, which could impair the ability to avoid predators and survive threats (Nelms *et al.* 2016). Entanglement in marine debris results in injuries that can reduce fitness, cause eventual death, reduce ability to avoid predators, reduce ability to forage and/or swim efficiently due to drag, and lead to starvation or drowning (Nelms *et al.* 2016). Pollution on the beach and in the water occurs throughout the range of the NW Atlantic DPS.

Dow *et al.* (2007) defined marine pollution as agriculture, petroleum, sewage, industrial runoff, vessel discharges, declining water quality, and marine debris. They found pollution in the marine environment to be among the greatest threats to all sea turtle species in the Wider Caribbean Region. Dow *et al.* (2007) defined beach pollution as agriculture, petroleum/tar, sewage, industrial runoff, and beach litter/debris; they found pollution on the beach to be a threat. Pollution on the beach and in the water occurs throughout the range of the NW Atlantic DPS.

Leatherback turtles are susceptible to adverse effects from pollution. Marine pollution, including direct contamination and structural habitat degradation, can also affect leatherback habitat. In particular, the Mediterranean is an enclosed sea, so organic and inorganic wastes, toxic effluents, and other pollutants rapidly affect the ecosystem (Camiñas 2004).

Of particular concern, due to their immune, reproductive, and endocrine disrupting nature, are persistent organic pollutants (POPs), such as polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and pesticides (Bergeron *et al.* 1994; Bishop *et al.* 1991, 1998; Keller *et al.* 2004). These chemicals have been identified in both adults and eggs in several areas occupied by this DPS. Guirlet *et al.* (2010) measured maternal transfer of organochlorine contaminants (OCs) from 38 nesting females in French Guiana. PCBs were found to be the dominant OC, followed by pesticides, but OC concentrations were lower than concentrations measured in other marine turtles (potentially due to the lower trophic level diet and offshore foraging areas). All OCs detected in nesting adults were detected in eggs, suggesting a maternal transfer of OCs. In French Guiana, hatching success has been shown to be low when OCs are present in the sand (most likely originating from pesticide use in plantations and malaria prophylaxis (Guirlet 2005). However, a link between OCs and embryonic mortality could not be determined (Guirlet *et al.* 2010). Stewart *et al.* (2011) also recorded PCB, OC, and PBDE concentrations for nesting and stranded leatherback turtles in the southeastern United States. Their results also suggested maternal transfer of POPs in leatherback turtles, but Stewart *et al.* (2011) found higher levels of PCBs and pesticides than those found in French Guiana (Guirlet *et al.* 2010). While finding that leatherback contaminant concentrations were substantially lower than concentrations in other reptile studies that demonstrated toxic effects, Stewart *et al.* (2011) suggested that sub-lethal effects (especially on hatchling body condition and health) may nevertheless be occurring in this species. De Andres *et al.* (2016) similarly monitored PCB and PBDE concentrations in eggs laid in Costa Rica (18 nests). POP levels were similar to those reported in French

Guiana nesting females (Guirlet *et al.* 2010) and slightly lower than those in Florida (Stewart *et al.* 2011). Further, De Andres *et al.* (2016) found a significant negative relationship between PBDE levels and hatching success, suggesting potential harmful effects of these contaminants on leatherback reproduction. OCs (and mercury) have also been documented in turtles that stranded in the United Kingdom (Godley *et al.* 1998). A leatherback that stranded off the coast of Wales, U.K. was found with PCB levels one-to-three orders of magnitude higher than the lowest levels reported for fish taken in the North Atlantic, but similar to the lowest concentrations reported from oceanic cetaceans (Davenport *et al.* 1990). Even with the recent restriction of the use of POPs, due to the widespread persistent nature of these chemicals and continuing atmospheric deposition (Ross *et al.* 2009) it is probable that similar chemical concentrations occur in other areas of this DPS.

Other contaminants have also been documented in leatherback turtles and their eggs. Heavy metals (*e.g.,* arsenic, cadmium, chromium, mercury, lead, etc.) enter the environment from a variety of sources (Guirlet *et al.* 2008; Perrault 2012). In particular, mercury can affect a variety of functional processes in wildlife, including the nervous, excretory and reproductive systems (Wolfe *et al.* 1998). Mercury, cadmium, and lead were recorded in nesting females (n = 46) and eggs in French Guiana (Guirlet *et al.* 2008). Maternal transfer of all three elements was documented, and female lead levels increased throughout the nesting season (Guirlet *et al.* 2008). This could be explained, in part, by external contamination via ingestion of contaminated prey or polluted water during nesting, as the French Guiana coast environment is exposed to significant environmental pollution via anthropogenic and natural sources. While mercury concentrations were lower than values reported for other sea turtle species, cadmium levels documented in French Guiana were at the same level shown to impact gonadal development in other turtle species and may impact reproductive processes and lower fertility (Guirlet *et al.* 2008). In Massachusetts, entangled turtles had significantly higher blood lead concentrations than directly captured turtles (Innis *et al.* 2010). While similar to those reported in French Guiana (Guirlet *et al.* 2008), blood concentrations of mercury and cadmium were at levels high enough to induce carcinogenic, teratogenic, and toxic effects in a variety of species (Innis *et al.* 2010).

Mercury and selenium have also been recorded in nesting females and eggs in Florida and St. Croix. Animals persistently exposed to mercury can experience selenium deficiency, which is of concern because selenium is important to hatching and emergence success (Perrault *et al.* 2011). However, high levels of selenium can be toxic and negatively impact hatching success (Perrault *et al.* 2013). Mercury concentrations in nesting females from Florida were found to be higher than in St. Croix, which could be a result of different migratory and foraging areas, whereas hatchling blood mercury values were higher in St. Croix (Perrault *et al.* 2011; Perrault *et al.* 2013). It is interesting to note that in St. Croix, no correlations were found between mercury or selenium concentrations and hatching or emergence success, which is different from results in Florida (Perrault *et al.* 2011; Perrault *et al.* 2013). Hazard quotient results by Perrault *et al.* (2013, 2014) imply that mercury and selenium levels could pose a threat to leatherback turtle reproductive success and/or hatchling health and survival. Leatherback hatching and emergence success rates are already low compared to other species of sea turtles (Bell *et al.* 2004; Perrault *et al.* 2011), so the impacts of pollution and contamination on hatching success is a notable concern. In addition, mercury was found to be higher in adults than juveniles/sub-adults stranded along the U.S. Atlantic coast, suggesting potential physiological concerns due to accumulation and ongoing inputs into the environment (Perrault *et al.* 2012). It is clear that additional long-term research is needed to better understand the relationship of non-essential elements in turtle development and reproduction.

Marine debris (most notably plastic pollution) is a threat throughout the range of the NW Atlantic DPS (Girondot 2015). Several global reviews have outlined the persistent and widespread nature of the issue, both as an ingestion and an entanglement threat (Mrosovsky *et al.* 2009; Schuyler *et al.* 2014; Nelms *et al.* 2016; Lynch 2018). Law *et al.* (2010) assessed plastic content at the surface of the western North Atlantic Ocean and Caribbean Sea from 1986 to 2008, and found the highest concentration of plastic debris was observed in subtropical latitudes and associated with large-scale convergence zones, which include foraging areas targeted by leatherback turtles.

Ingestion of marine debris is a concern for leatherback turtles, especially given the similarity of their preferred prey (*e.g.,* gelatinous zooplankton) to some plastics. In particular, plastic bags appear similar to jellyfish in the marine environment, leading to mistaken and inappropriate triggering of the sensory cue to feed (Schuyler *et al.* 2014; Nelms *et al.* 2016). While plastic ingestion is not always fatal, it can reduce ability to feed, affect swimming behavior and buoyancy control, potentially lead to chemical contamination and chronic effects, and weaken physical condition, which could impair the ability to avoid predators and survive threats (Nelms *et al.* 2016).

Marine debris ingestion can occur in any location, but given the enclosed nature of the sea and intense human pressure, the Mediterranean Sea in particular is a hot spot for plastic marine debris and other pollutants (Camiñas 2004; Cozar *et al.* 2015). Marine debris ingestion has been documented from leatherback turtles stranded in Tunisia (Karaa *et al.* 2013), Israel (Levy *et al.* 2005), the northern Adriatic Sea (Poppi *et al.* 2012), and the Strait of Sicily (Caracappa *et al.* 2017). Of particular note, 30 to 73 percent of turtles stranded in the Bay of Biscay (France) were found to have ingested plastic annually from 1979 to 1999 (out of 87 leatherback turtles necropsied; Duguy *et al.* 2000). The seasonal rate of ingestion was inversely related to the abundance of jellyfish, leading the authors to propose that the depletion of jellyfish led to debris ingestion as potential prey. Cozar *et al.* (2015) conclude that the effects of plastic pollution on marine life are anticipated to be frequent in the high plastic-accumulation region of the Mediterranean Sea.

In U.S. waters, marine debris ingestion has also been documented in stranded leatherback turtles. However, ingestion does not always cause mortality and is typically an incidental finding. Of 41 leatherback turtles necropsied from North Carolina to Texas between 2008 and 2017, 17 had ingested plastics or marine debris (STSSN unpublished data 2018). From Maine to Virginia during that same time period, 10 necropsies detected ingestion, but the total number of necropsied turtles, out of the 677 strandings in the region, is currently unknown. It is likely that many more stranded turtles ingested some level of marine debris (STSSN unpublished data 2018). Out of 33 leatherback turtles examined in New York Bight (an area with dense population), 30 percent had

synthetic material ingestion, mostly consisting of thin, clear plastic (Sadove *et al.* 1989). Of two leatherback turtles stranded in North Carolina during 2017 whose gastrointestinal tracts were analyzed, microplastics were present in both (Duncan *et al.* 2018).

Marine debris ingestion is not limited to microplastics or plastic bags. Off the northeastern U.S. coast, necropsies of disentangled leatherback turtles that have died post-release have documented considerably large pieces of plastic (*e.g.,* 83 by 35 cm) in their stomachs (Innis *et al.* 2010). These numbers likely underestimate the true marine debris ingestion rate because many turtles likely ingest marine debris and do not strand.

Leatherback turtles can also become entangled in marine debris. From 2008 to 2017, the Northeast U.S. STDN documented 24 entanglements from miscellaneous sources not attributed to obvious fisheries entanglements, as described above (STDN unpublished data). These unknown entanglements could involve a myriad of sources but are considered as entangling marine debris. The Sea Turtle Recovery Action Plan for the Republic of Trinidad and Tobago noted that entanglement in lost or abandoned fishing gear (primarily nets) poses a threat to leatherback turtles in the marine and terrestrial environment (Forestry Division *et al.* 2010).

Marine debris is also a problem on nesting beaches and can reduce nesting success. Pollution and debris often are deposited on high energy beaches, which are also the preferred nesting habitat of leatherback turtles (TEWG 2007). Coastal and inland littering (which can ultimately reach the sea) is a problem throughout Trinidad and Tobago, and ocean borne debris is particularly prevalent on the east and north coasts, which host the main leatherback nesting beaches (Trinidad and Tobago Forestry Division *et al.* 2010). Extensive debris on nesting beaches is not uncommon throughout the Caribbean, often carried by rivers to the sea and later washed ashore (*e.g.,* in Costa Rica; Chacón-Chaverri and Eckert 2007). Debris on nesting beaches may impede females during the nest-site selection stage, limit and degrade the amount of habitat available, and/or result in aborted nesting attempts (Chacón-Chaverri and Eckert 2007). If line or netting is encountered on nesting beaches, entanglement of nesting females and hatchlings is also a risk.

The majority of the NW Atlantic DPS is exposed to pollution throughout all life stages. These threats are a result of the developed nature of many of the nations within the range of the DPS. The degree of impact is difficult to quantify, especially given the widespread nature of pollution and the diverse types of impacts. Contaminants may affect this DPS by reducing productivity, if hatching success is lowered, and by lowering abundance, if contamination results in mortality. Marine debris affects the DPS by lowering abundance, when it causes death through ingestion or entanglement, and reducing productivity, when hatchlings and nesting females are affected. While, we do not have quantitative estimates of the number of individuals that are killed or injured as a result of pollution, we conclude that it is prevalent throughout the range of the DPS and constitutes a threat to the NW Atlantic DPS.

Oil and Gas Exploration

Oil and gas activities have the potential to impact the NW Atlantic DPS directly (*e.g.,* exposure to oil following oil spills) and indirectly (*e.g.,* increased probability of vessel strikes and habitat degradation/destruction). In addition to lethal effects, sublethal effects may occur and include displacement from primary foraging areas with accompanying energy costs (TEWG 2007).

Several areas within the range of the NW Atlantic DPS have intense oil and gas development and exploration close to major nesting beaches. The potential for oil spills is of particular concern in the Wider Caribbean Region due to its effect on all life stages in the marine environment. The biggest oil producing nations in South America are Brazil, Mexico, Venezuela, and Colombia. Although only three Caribbean nations currently have exportable oil and natural gas reserves (Barbados, Cuba, and Trinidad and Tobago, with Trinidad and Tobago the only significant exporter), in 2017, a major oil field was discovered off Guyana, which will likely lead to extensive new development and extraction. As a result, marine traffic is likely to increase in the area as well as the possibility for oil spills. In Panama, contamination from oil spills, primarily in area of the Trans-Isthmus oil pipeline and the Panama Canal, is of particular concern (Bräutigam and Eckert 2006; Ruiz *et al.* 2006). Some Caribbean nations (*e.g.,* Belize, French Guiana) have permanent moratoria on oil and gas exploration in offshore waters.

In the United States, oil and gas extraction primarily occurs in the GOM (BOEM 2016; BOEM 2017), an area with leatherback foraging and migratory habitat (Aleksa *et al.* 2018). Increased shipping traffic and marine noise due to oil and gas explorations in the GOM pose a direct threat for leatherback turtles in foraging grounds and migratory routes, due to the potential for vessel strikes and harassment (Wallace *et al.* 2017; Ward 2017). Oil spills regularly occur in the GOM, from small amounts of varying types of oil product to large catastrophic spills. In 2010, a major oil spill occurred in the north-central GOM, affecting important foraging habitat used by leatherback turtles (Deepwater Horizon NRDA Trustees 2016). Evans *et al.* (2012) tracked a post-nesting leatherback from Chiriqui Beach, Panama, into the GOM during the Deepwater Horizon oil spill. The track followed similar tracks from turtles in previous years and did not seem to change once entering areas with visible oil slicks (on two occasions). Injuries to leatherback turtles caused by the GOM Deepwater Horizon oil spill could not be quantified (Deepwater Horizon NRDA Trustees 2016). However, given that the GOM is important habitat for leatherback turtles (Aleksa *et al.* 2018) and leatherback turtles were documented in the Deepwater Horizon oil spill zone during the oil spill period, the Deepwater Horizon NRDA Trustees (2016) concluded that leatherback turtles were exposed to Deepwater Horizon oil, and some portion of those exposed likely died.

In Atlantic Canada, impacts from oil and gas may also occur. Several petroleum production projects occur offshore of Nova Scotia (*https://www.cnsopb.ns.ca/offshore-activity/offshore-projects*). Howard (2012) determined that oil pollution from coastal refineries, ships, small engine vessels, and oil and gas exploration and production is a risk to leatherback survival in Canada. There are also offshore oil and gas platforms in the North (United Kingdom, Denmark) and Mediterranean Seas, where similar impacts to leatherback turtles may also occur (EU Offshore Authorities Group 2018; *https://euoag.jrc.ec.europa.eu/node/63*). In particular, the Mediterranean Sea has been declared a ''special area'' by the International Convention for the Prevention of Pollution from Ships (MARPOL), in which deliberate petroleum discharges from vessels are banned, but numerous repeated offenses are still thought to occur (Pavlakis *et al.* 1996). Some estimates of the amount of oil released into the region is as high as 1,200,000 metric tons (Alpers 1993). Direct oil spill events also occur, as in Lebanon in 2006 when 10,000 to 15,000 tons of heavy fuel oil spilled into the eastern

Mediterranean (UN Environment Programme 2007).

In summary, oil and gas activities are prevalent in foraging, migratory, and offshore nesting habitats of the NW Atlantic DPS, potentially exposing all life stages to oil associated threats, such as direct miring in oil, oil ingestion, vessel strikes, and nesting beach contamination. Oil and gas activities have the potential to affect this DPS by reducing productivity (*e.g.,* if hatching success is reduced by oil spills) and potentially lowering abundance (*e.g.,* if oil exposure results in mortality). As such, oil and gas activities are a threat to the NW Atlantic DPS.

Natural Disasters

Natural disasters, such as hurricanes and other storms, and natural phenomena, such as *Sargassum* events on or near nesting beaches, pose a threat to the NW Atlantic DPS.

Hurricanes are common in the Caribbean and southeastern United States. Hurricanes and tropical storms impact nesting beaches by increasing erosion and sand loss and depositing large amounts of debris. In 2017, Hurricane Maria devastated the islands of Dominica, St. Croix, and Puerto Rico, and even though the nesting season was nearly over, many beaches were impacted, including Maunabo, Puerto Rico (one of the most abundant nesting beaches on the island; R. Espinoza, Conservación ConCiencia, pers. comm., 2017). Dewald and Pike (2014) found that a lower level of leatherback nesting attempts occurred on sites that were more likely to be impacted by hurricanes. These types of storm events may ultimately affect the amount of suitable nesting beach habitat, potentially resulting in reduced productivity, especially as leatherback turtles typically nest on high energy beaches (TEWG 2007).

Hurricanes may also result in egg loss by destroying and inundating nests. However, hurricanes are usually aperiodic so the impacts are expected to be infrequent. Hurricanes also typically occur after the peak of the leatherback hatching season and would not be expected to affect the majority of incubating nests (USFWS 1999). That said, according to the Intergovernmental Panel on Climate Change (IPCC), climate change may be increasing the frequency and patterns of hurricanes (IPCC 2014) potentially causing such impacts to nests to become more common in the future.

Sargassum is a genus of macroalgae found in temperate and tropical waters. When large amounts of *Sargassum* wash ashore, they form thick mats that have the potential to disrupt females' nesting activities and impede hatchlings' access to the ocean (Maurer *et al.* 2015). In 2011 and 2015, large amounts of *Sargassum* were present in the Caribbean (mainly Trinidad and Tobago and Grenada) and frequently washed ashore, covering large expanses of sandy shoreline on nesting beaches. While females still nested in these areas, hatchlings needed intervention to reach the ocean (Wang and Hu 2016; Audroing, TVT, pers. comm., 2018; K. Charles, Ocean Spirits Inc., pers. comm., 2018). Most recently, large amounts of *Sargassum* were found in 2018 on Caribbean beaches, causing Barbados to declare a national emergency in June 2018. Such widespread blanketing of *Sargassum* on leatherback nesting beaches throughout the Caribbean has the potential to impact future hatching success and survival.

In summary, natural disasters and phenomena have the potential to impact the NW Atlantic DPS. However, given the infrequent and temporary nature of the occurrences, only a small proportion of eggs, hatchlings, and nesting females are exposed to these threats. Impacts include egg and hatchling mortality that affect productivity of the DPS. Seasonal losses at individual beaches may be large, but we do not expect such impacts to be spatially or temporally widespread. However, we conclude that natural disasters pose a threat to the DPS.

Climate Change

Climate change is a threat to the NW Atlantic DPS. The impacts of climate change include increases in temperatures (air, sand, and sea surface); sea level rise; increased coastal erosion; more frequent and intense storm events; and changes in ocean currents. These impacts may affect leatherbacks through alterations of the incubation environment, reduction of nesting habitat, and changes in prey as described in the following subsections.

Modeling results show that global warming (rise in average surface temperature) poses a ''slight risk'' to females nesting in French Guiana and Suriname relative to those nesting in Gabon, Congo, and West Papua (Dudley *et al.* 2016). As global temperatures continue to increase, some beaches will experience changes in sand temperatures, which in turn will alter the thermal regime of incubating nests. Changing sand temperatures at nesting beaches may result in changing sex ratios of hatchling cohorts and reduced hatching output (Hawkes *et al.* 2009). Leatherback turtles exhibit temperature-dependent sex determination (Binckley and Spotila 2015) and warmer temperatures produce more female embryos (Mrosovsky *et al.* 1984; Hawkes *et al.* 2007). In the NW Atlantic DPS, the pivotal temperature (the temperature at which a sex ratio of 1:1 is produced) is estimated to be between 29.25 °C and 30.5 °C (Eckert *et al.* 2012) but there are variations in measurements (Girondot *et al.* 2018), over time, and among locations. An increase over that temperature would result in more female hatchlings. Such increases in female hatchling output have already been documented (Patiño-Martínez *et al.* 2012), and with an increase in temperatures from climate change, these trends are likely to continue if other nesting factors remain constant. For example, Patiño-Martínez *et al.* (2012) developed a model to relate measured incubation temperature to sex ratio and estimated that females nesting at Caribbean Colombian beaches currently produce approximately 92 percent female hatchlings. Under all future climate change scenarios, complete feminization could occur as soon as 2021 (Patiño-Martínez *et al.* 2012). In St. Eustatius, leatherback hatchling production was female biased from 2002 to 2012, with less than approximately 24 percent of males produced every year (Laloë *et al.* 2016). Future warming air temperatures will exacerbate this female bias, and female leatherback sex ratios are projected to consistently reach 95 percent after 2028 on that island, which has dark and light sand beaches (Laloë *et al.* 2016). Warming trends in Costa Rica are expected to be higher than the global average and resulting female-biased sex ratios are also expected (Gledhill 2007). While the assumption is that most nesting beaches will become female-biased due to increased sand temperatures, this may not be the case in all areas. In Grenada, increased rainfall (another effect of climate change) was found to have a cooling influence on nests, so that more male producing temperatures (less than 29.75 °C) were found within the clutches (Houghton *et al.* 2007). Further, due to the tendency of nesting females to deposit some clutches in the cooler intertidal zone of beaches, the effects of long-term climate on sex ratios may be mitigated (Kamel and Mrosovsky 2004; Patiño-Martínez *et al.* 2012).

Hatching success is affected by warming temperatures. Extremely high sand/nest temperatures are anticipated to result in embryonic mortality (Gledhill 2007, Santidrián Tomillo *et al.* 2012, Valentin-Gamazo *et al.* 2018). In Costa Rica, warmer conditions can

exacerbate the effects of biotic contamination and mold infestations of developing embryos (Gledhill 2007), resulting in reduced hatching success.

Temperature increases are likely to be associated with more extreme precipitation and faster evaporation of water, leading to greater frequency of both very wet and very dry conditions that reduce productivity (Patiño-Martínez *et al.* 2014; Santidrián Tomillo *et al.* 2015). These impacts may affect nests in different ways, but the result (*e.g.,* reduced hatching output) is similar. Very wet conditions may inundate nests or increase fungal and mold growth, reducing hatching success (Patiño-Martínez *et al.* 2014). Very dry conditions may affect embryonic development and decrease hatchling output. Under climate change scenarios, very dry conditions are expected for St. Croix, an area already showing decreased productivity and reduced first time nesting female abundance (Santidrián Tomillo *et al.* 2015; Garner *et al.* 2017). Santidrián Tomillo *et al.* (2015) assessed climatic conditions on hatchling output at four nesting sites (Sandy Point, St. Croix; Pacuare, Caribbean Costa Rica; Playa Grande, Pacific Costa Rica; Maputaland, South Africa), and found that St. Croix had the highest projected warming rate (+ 5.4 °C), highest absolute temperature and lowest precipitation levels. With these further increases in dryness and air temperatures, hatchling productivity is expected to be compromised by the end of the 21st century in this area (Santidrián Tomillo *et al.* 2015). Santidrián Tomillo *et al.* (2015) suggested that the lack of rain is what reduces developmental success and hatchling emergence. However, Rafferty *et al.* (2017) evaluated long-term climate data for St. Croix, using climate data collected from a nearby weather station, and found no significant trend in incubation temperatures or precipitation that could be associated with observed decreases in productivity at this location.

Finally, incubation temperatures can also influence hatchling morphology and locomotion (Mickelson and Downie 2010). Leatherback hatchlings originating from nests incubated at lower temperatures exhibited carapace and front flipper length-width ratios that significantly improved their crawling speeds relative to those hatchlings incubated at high temperatures (Mickelson and Downie 2010).

Sea level rise is another threat to leatherback turtles. Thornalley *et al.* (2018) found that the Labrador Sea deep convection and the Atlantic Meridional Overturning Circulation, a system of ocean currents in the North Atlantic, have been unusually weak over the past 150 years or so, and this weakened state may have modified northward ocean heat transport, as well as atmospheric warming by altering ocean-atmosphere heat transfer. Further, the documented weakening of this system is related to above-average sea level rise along the U.S. East Coast (Caesar *et al.* 2018). Sea level rise may result in intensified erosion and loss of nesting beach habitat (Fish *et al.* 2005; Fuentes *et al.* 2010; Fonseca *et al.* 2013). In Bonaire, up to 32 percent of the current beach area could be lost with a 0.5 m rise in sea level, with lower, narrower beaches being the most vulnerable (Fish *et al.* 2005). Ussa (2013) predicted a 20 to 25 percent loss in beach areas due to sea level rise by the year 2100 within the Archie Carr National Wildlife Refuge, Florida, as well as areas adjacent to the Refuge. With the threat of increasing sea level rise, protection of developed coastlines often involves shoreline armoring that reduces the amount of beach available, thus creating a smaller amount of space for turtles to nest (Hawkes *et al.* 2009). Along such developed coastlines, rising sea levels may cause severe effects on eggs, because nesting females are forced to deposit eggs seaward of shoreline armoring, potentially subjecting them to repeated tidal inundation and/or egg exposure from exacerbated wave action near the base of these structures.

Sea level rise is expected to result in more nests being inundated, reducing hatching success. On Playona Beach, Colombia, Patiño-Martínez *et al.* (2014) found that nests in wet sand suffered higher mortality (emergence success of zero percent for wettest nests to 64 percent for the driest nests), suggesting that nesting success should be expected to decrease under future climate change sea level rise scenarios. Inundation is likely to reduce hatching success (Patiño-Martínez *et al.* 2008; Caut *et al.* 2010) and will continue to occur (or worsen) with sea level rise.

However, leatherback turtles may be less susceptible than other species of sea turtles to loss of nesting habitat, because they exhibit lower nest-site fidelity (Dutton *et al.* 1999). Nesting beaches in the Guianas are already highly dynamic and interseasonally variable, and leatherback nesting females have been successful in those areas despite the fact that some beaches disappear between nesting years (Plaziat and Augustinus 2004; Kelle *et al.* 2007; Caut *et al.* 2010). If global temperatures increase and there is a range shift northwards, beaches not currently used for nesting could in the future become used by leatherback turtles, potentially offsetting some loss of accessibility to beaches in southern portions of the range. Leatherbacks' behavioral flexibility may allow for opportunities to colonize new beaches, but whether turtles can colonize nesting areas that become available, either thermally or geographically, by climate change, and whether these colonized areas provide incubation regimes that will lead to successful nesting, emergence success, and hatchling fitness cannot be known at this time (Hawkes *et al.* 2009).

Observed changes in marine systems are associated with other aspects of climate change, including rising water temperatures, as well as related changes in ice cover, salinity, oxygen levels, and circulation. Ocean temperatures of the U.S. northeastern continental shelf and surrounding NW Atlantic waters have warmed faster than the global average over the last decade (Pershing *et al.* 2015). New projections for the U.S. northeastern shelf and NW Atlantic Ocean suggest that this region will warm two to three times faster than the global average and existing projections from the IPCC may be too conservative (Saba *et al.* 2015). This increase in northeastern shelf waters is relevant for NW Atlantic leatherback turtles, as they rely on U.S. and Canadian waters to forage during the warmer months (James 2005a, 2006b, 2007; Dodge 2014, 2015).

Global warming is expected to expand leatherback foraging habitats into, and increase residency time in, higher latitude waters (James *et al.* 2006a; McMahon and Hays 2006; Robinson *et al.* 2009). For example, leatherback turtles have extended their range in the Atlantic north by around 200 km per decade over the last two decades as warming has caused the northerly migration of the 15 °C sea surface temperature (SST) isotherm, the lower limit of thermal tolerance for leatherback turtles (McMahon and Hays 2006). Documented weakening of the Meridional Overturning Circulation is related to above-average warming in the Gulf Stream region and an associated northward shift of the Gulf Stream (Caesar *et al.* 2018). This weakening of the deep, cold-water circulation in the North Atlantic is likely to continue to occur with global warming. Migratory routes may be altered by climate change as increasing ocean temperatures shift range-limiting isotherms north (Robinson *et al.* 2009). Post-nesting females from French Guiana were found to migrate northward toward the Gulf Stream north wall, targeting similar habitats in terms of physical characteristics, *i.e.,* strong gradients of

SST, sea surface height, and a deep mixed layer (Chambault *et al.* 2017). Hatchling dispersal may also be affected by changes in surface current and thermohaline circulation patterns (Hawkes *et al.* 2009; Pike 2013).

The effects of global warming are difficult to predict, but changes in reproductive behavior (*e.g.,* remigration intervals, timing and length of nesting season) could occur (Hawkes *et al.* 2009; Hamann *et al.* 2013). Robinson *et al.* (2014) found that the median nesting date at Sandy Point (St. Croix) occurred on average 0.17 days earlier per year, between 1982 and 2010. However, Neeman *et al.* (2015) found that increased temperatures at the foraging grounds tend to delay leatherback nesting. Temperatures at the nesting beaches (Playa Grande, Costa Rica; Tortuguero, Costa Rica; and St. Croix) did not affect the timing of leatherback nesting (Neeman *et al.* 2015). Because the relation between temperatures (local sea surface and the foraging grounds) and timing of nesting is complex, Neeman *et al.* (2015) indicated that further study is needed at the nesting beaches to determine how environmental conditions change within the season and how these changes affect nesting success. Robinson *et al.* (2014) suggests that shifts in the nesting phenology may make the Atlantic populations more resilient to climate change.

Extreme precipitation events over most of the mid-latitude and tropical regions will very likely become more intense and more frequent (IPCC 2014). Changes in the frequency and timing of storms or changes in prevailing currents could lead to increased beach loss via erosion (Van Houtan and Bass 2007; Fuentes and Abbs 2010). More frequent and intense storm events will have the same effect on leatherback nesting success as previously described for natural disasters.

In summary, climate change is likely to affect multiple life stages of turtles in the NW Atlantic DPS. Likely impacts include altering sex ratios and reducing nest success, reducing nesting beach habitat and nests due to sea level rise and storms, and potentially changing distribution. Climate change therefore has the potential to alter productivity and diversity. These impacts could be more severe in certain areas with more dynamic beach environments, or could be widespread throughout the DPS. Impacts are likely to range from small, temporal changes in nesting season to large losses of productivity. That said, leatherback turtles are considered to be the best able to cope with climate change of all sea turtle species due to their wide geographic distribution and relatively weak nesting site fidelity. Overall, we conclude that climate change is a threat to the NW Atlantic DPS.

Conservation Efforts

Next we consider ''conservation efforts'' under Section 4(b)(1)(A) (16 U.S.C. 1533(b)(1)(A)).[1] There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply to the NW Atlantic DPS (for a description of each effort, please see the section on conservation efforts for the taxonomic species): African Convention on the Conservation of Nature and Natural Resources (Algiers Convention); Central American Regional Network; Convention on the Conservation of Migratory Species of Wild Animals; Convention on Biological Diversity; Convention on International Trade in Endangered Species of Wild Fauna and Flora; Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention); Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Specially Protected Areas and Wildlife (SPAW); Convention on the Conservation of European Wildlife and Natural Habitats; Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention); Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa (Abidjan Memorandum); Convention for the Protection and Development of the Marine Environment of the North East Atlantic; Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Washington or Western Hemisphere Convention); Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention); Cooperative Agreement for the Conservation of Sea Turtles of the Caribbean Coast of Costa Rica, Nicaragua, and Panama (Tri-Partite Agreement); Council Regulation (EC) No. 1239/98 of 8 June 1998 Amending Regulation (EC) No. 894/97 Laying Down Certain Technical Measures for the Conservation of Fishery Measures (Council of the European Union); Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive); Food and Agricultural Organization (FAO) Technical Consultation on Sea Turtle-Fishery Interactions; Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC); MARPOL; Inter-American Tropical Tuna Convention (IATTC); IUCN; North American Agreement for Environmental Cooperation; Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean; Ramsar Convention on Wetlands; Regional Fishery Management Organizations (RFMOs); UN Convention on the Law of the Sea (UNCLOS); and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the NW Atlantic DPS is at high risk of extinction. The total index of nesting female abundance is 20,659 females at consistently monitored beaches, and the most recent annual rate of decline is estimated to be approximately nine percent (NW Atlantic Leatherback Working Group 2018). The best available nest data reflect a steady decline for more than a decade, becoming more pronounced since 2008 (Eckert and Mitchell 2018; NW Atlantic Leatherback Working Group 2018). This decreasing trend is observed when all available nest data are combined and at most nesting beaches (NW Atlantic Leatherback Working Group 2018), including the largest nesting aggregation in Trinidad (*i.e.,* Grande Riviere, which is declining at 6.9 percent annually). In terms of productivity, the DPS exhibits low hatching success, while other key parameters such as clutch size, remigration interval, and clutch frequency are similar to species' averages. There are also indications of decreased productivity within the DPS at one of the most intensively monitored nesting beaches (*i.e.,* Sandy Point, St. Croix; Garner *et al.* 2017). The declining region-wide nest trend and potential changes in productivity make the DPS highly vulnerable to threats.

However, the DPS exhibits broad spatial distribution and some diversity. Based upon genetic data, as well as flipper tagging and satellite telemetry data, this DPS shows significant spatial structure with some connectivity among nesting and foraging areas. Further, nesting occurs in a variety of habitats,

[1] For a related discussion of existing regulatory mechanisms to protect turtles, which are considered separately under Section 4(a)(1)(D), see the discussion above at ''*Inadequacy of Existing Regulatory Mechanisms.*''

including islands and mainland, as well as muddy, sandy, and shelly beaches. The DPS uses multiple, distant, and diverse foraging areas, including oceanic and coastal waters throughout the North Atlantic Ocean, Mediterranean Sea, and GOM, providing some resilience against reduced prey availability. While the numerous and diverse nesting and foraging locations, along with moderate levels of genetic diversity, provide some level of buffer to the DPS, the highest concentrations of nesting occur in Trinidad, French Guiana, and Panama, where a catastrophic event could have a disproportionate impact on the DPS.

The primary threat to the NW Atlantic DPS is bycatch in commercial and artisanal, pelagic and coastal fisheries. Gillnet fisheries, in particular those off nesting beaches, are the greatest concern given the high mortality rate. In particular, the coastal surface drift gillnet fishery off Trinidad kills an estimated 1,000 adult leatherback turtles annually (Lee Lum 2006; Eckert *et al.* 2008; Eckert 2013). Bycatch, and subsequent mortality, in Trinidad bottom set gillnets and surface gillnets in Suriname and French Guiana are major threats to the NW Atlantic DPS. Trinidad and French Guiana host the highest number of nesting females in this DPS, so the continued mortality of adults in that area is of significant concern. Further, no adequate regulatory mechanism is currently in place (*e.g.,* no gear modifications or closures) to address this incidental bycatch. These fisheries and the related mortality rates have been occurring for years (Lee Lum 2006; Eckert 2013). Longline fisheries are the most widespread threat, occurring throughout the Atlantic Ocean by fisheries from multiple nations, incidentally capturing thousands of leatherback turtles annually based on the best available data. Longline gear modifications (*e.g.,* circle hooks) are sometimes, but not consistently, used. Fishery bycatch in pot/trap gear, especially off the northeastern U.S. coast and in Canadian waters, and trawls are also significant threats. Fisheries bycatch reduces abundance by removing individuals from the population; when those individuals are nesting females, it reduces productivity as well. Given the lack of observer coverage and reporting, cumulative mortality due to fisheries bycatch is likely higher than available estimates.

Additional threats to the DPS include habitat loss, the legal and illegal harvest of turtles and eggs, predation, vessel strikes, pollution, climate change, oil and gas activities, and natural disasters. Coastal development and armoring, erosion (natural and anthropogenic), and artificial lighting are some of the most significant stressors on nesting beach habitat, reducing nesting and hatching success (*i.e.,* productivity). Habitat loss and modification is also anticipated to increase over time with additional development and climate change. Legal and illegal harvest of turtles and eggs reduces abundance and productivity. Illegal egg poaching occurs in several nations, particularly Costa Rica, Dominican Republic, and Colombia. While reduced in some nations, illegal poaching still occurs on unmonitored beaches throughout most of the Caribbean, including Suriname and Trinidad. While leatherback eggs and hatchlings are preyed upon by many species, the biggest threat is from feral dogs. Egg predation by dogs occurs in many nations, but it is a particular concern in Colombia, French Guiana, Guyana, Panama, Puerto Rico, and Trinidad and Tobago. Intervention (*e.g.,* screening) to reduce predation is not used in most places, partially due to the concern of attracting poachers as well as the infeasibility of implementing effective measures at high-density or remote beaches. Egg predation reduces productivity.

Vessel strikes are also a threat, killing numerous leatherback turtles each year. While exposure to vessel strikes may be most severe in developed areas, the total impacts are high, affecting both abundance and productivity. Pollution, ingestion of plastics, and entanglement in marine debris are threats to all leatherback turtles, most likely resulting in injury and compromised health, and sometimes mortality. Exposure to pollution is widespread in the NW Atlantic Ocean, but effect data are limited. Oil and gas activities are threats with the potential to grow in some Caribbean areas. Natural disasters (hurricanes) and phenomenon (large *Sargassum* events) have an intermittent impact to the NW Atlantic DPS. Climate change is likely to result in reduced productivity due to greater rates of coastal erosion and sea level rise and subsequent nest inundation and habitat loss, reduced hatching success, changing sex ratios, and distributional changes. Although many international, national, and local regulatory mechanisms are in place, they do not adequately reduce the impact of these threats.

The cumulative impact of these multiple threats is potentially large (Andersen *et al.* 2017). Innis *et al.* (2010) reported that many individuals are simultaneously exposed to multiple threats, including: entanglement, injury, plastic ingestion, adrenal gland parasitism, diverticulitis, and burdens of environmental toxins (Innis *et al.* 2010). Such cumulative pressures affect individual survival and productivity. In some cases, it is possible to directly link individual threats to demographic reductions (*e.g.,* high mortality in gillnets off nesting beaches reduces nesting female abundance). More often, however, several threats contribute synergistically to demographic reductions. For example, reductions in hatching success may be caused by one or more of the following threats alone or in combination: erosion, poaching, predation, climate change, and pollution.

We find that the NW Atlantic DPS is affected by numerous severe threats. These present, ongoing threats injure or kill turtles and contribute to the declining nest trend. The Team evaluated whether the DPS is at risk of extinction currently or would become so within the foreseeable future. To answer this question, they asked how long it would take for the total index of nesting female abundance to be reduced by 50 percent, a drastic decline that would reduce abundance to a level where demographic risks would present an independent threat to the DPS's continued existence, and whether this time period places the DPS at risk currently or within the foreseeable future. Using estimates of the mean time to maturation for the population (approximately 19 years; Avens *et al.* in review) and mean nesting longevity (approximately 11 years; Avens *et al.* in review) of the species, they estimated a generation time of approximately 30 years. They then considered three different scenarios. First, they calculated the time until 50 percent reduction in the total index of nesting female abundance using data on a significant and influential, well-documented, threat: Gillnet bycatch mortality of 1,000 adult turtles annually off the largest nesting aggregation, *i.e.,* Trinidad. Assuming that half of the turtles at Trinidad killed are female, total index of nesting female abundance would decrease by 50 percent in 28 years, which is approximately one generation.

Second, the Team used regional nest trend data from the NW Atlantic Leatherback Working Group (2018). Using the most recent trends as is typical for population projections (*i.e.,* −9.32 percent per year from 2008 to 2017), they found that the total index of nesting female abundance would fall by 50 percent within 8 years (95 percent CI: 6 to 13 years). Using trends from the longer data set (−4.21 percent per year

from 1990 to 2017), the total index of nesting female abundance would fall by 50 percent within 17 years (95 percent CI: 11 to 31 years). Finally, using their calculation of nest trend for the highest abundance nesting area in the DPS, Trinidad (−7.3 percent per year, 95 percent CI: −34 to 18 percent), the Team found that the total index of nesting female abundance would decrease by 50 percent within 10 years (95 percent CI: 3 years to ''never;'' however, ''never'' is highly unlikely, given that there is a 75 percent likelihood that the true value of the nest trend in Trinidad is negative (f = 0.754)). There are several caveats with using nest trend data: Adult females typically account for, at most, a small percentage of the population; trends in nesting female abundance may not be an index of the remainder of population; stable age distribution is assumed; and time series of available data do not always span one generation (let alone multiple generations required to reach stable age distribution). Despite these caveats, all scenarios resulted in a 50 percent reduction in the total index of nesting female abundance in less than one generation. While the first scenario did not involve the use of nest trend data, it did result in a 50 percent reduction within one generation when considering only one threat (albeit the most severe), and we know that the DPS faces many large-impact threats, (suggesting that the first scenario understates the DPS's degree of risk).

For the purpose of the extinction risk analysis, the Team discussed whether the resulting range of time periods (8 to 28 years) suggests a present risk of extinction or a risk of extinction within the foreseeable future. The Team did not have a unanimous view. All but one Team member were present to vote on the level of extinction risk. Eight Team members concluded with moderate confidence that the DPS is at high extinction risk due to threats and the declining trend that has accelerated in recent years. Their confidence was moderate rather than high due to some resilience provided by the abundance, spatial distribution, and diversity for this DPS. Two Team members concluded with low confidence that the DPS is at moderate extinction risk. Their confidence in this conclusion was low due to the declining trend that has accelerated in recent years. The Terms of Reference called for a simple majority, and after voting, the Team concluded that the DPS met the definition for high risk of extinction. We agree with the Team's overall conclusion that a 50 percent decline in less than one generation equates to a current, high risk of extinction. We find support for this conclusion in well documented examples of other leatherback populations that have quickly declined despite larger abundances (*e.g.,* the Mexico nesting aggregation declined from 70,000 nesting females in 1982 to under 1,000 nesting females by 1994; Spotila *et al.* 2000).

We conclude that the NW Atlantic DPS is presently in danger of extinction due to the number and magnitude of threats, of which fisheries bycatch is the greatest concern. These present and ongoing threats have resulted in imminent and substantial demographic risks (*i.e.,* declining trends and reduced abundance). Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce the risk of extinction. We conclude that the NW Atlantic DPS is in danger of extinction throughout its range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is currently at risk of extinction (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

SW Atlantic DPS

The Team defined the SW Atlantic DPS as leatherback turtles originating from the SW Atlantic Ocean, north of 47° S, east of South America, and west of 20° W; the northern boundary is a diagonal line between 5.377° S, 35.321° W and 12.084620° N, 20° W. The southern boundary is based on the Antarctic circumpolar current which prevents sea turtles from nesting further south. The western end of the northern boundary is based at the ''elbow'' of the Brazilian coast, where the Brazilian Current begins and likely restricts the northern nesting range of this DPS. We placed the eastern boundary at the 20° W meridian as an approximate midpoint between SW Atlantic and SE Atlantic (*i.e.,* turtles that nest in western Africa) nesting beaches and to reflect both DPS's wide foraging range throughout the South Atlantic Ocean. However, due to its low abundance, the SW Atlantic DPS is less likely to be encountered compared to the more abundant SE Atlantic DPS.

The SW Atlantic DPS only nests on the southeastern coast of Brazil, primarily in the state of Espírito Santo, on a continuous stretch of beach, less than 100 km in length, with concentrated nesting in Povoação and Comboios. While there is occasional, limited nesting south of these primary nesting beaches, the sand becomes coarser further south, and the excavation of nests becomes more difficult because the sand falls back into the holes (Thomé *et al.* 2007).

While nesting is limited geographically, the overall range of this DPS (*i.e.,* all areas of occurrence) is extensive, as demonstrated by individuals tracked to numerous foraging areas. Leatherback turtles of this DPS use coastal waters off South America from the ''elbow'' of Brazil southwards to Uruguay and Argentina, where quality foraging areas allow for coastal foraging in addition to open-ocean foraging (Almeida *et al.* 2011). Individuals of this DPS are also known to migrate to the waters off western Africa and forage in the oceanic habitat in between South America and Africa (Almeida *et al.* 2011). Likewise, Prosdocimi *et al.* (2014) found 84 to 86 percent of leatherback turtles sampled from the foraging grounds off Argentina and Elevação do Rio Grande (an elevated offshore area across from Brazil) to originate from western African beaches.

Abundance

The total index of nesting female abundance for the SW Atlantic DPS is 27 females. We based this index on nest monitoring data from Projeto TAMAR, the Brazilian Sea Turtle Conservation Program, which has established an index nesting survey area along 47 km of beach (10 km along Povoação and 37 km along Comboios; IAC Brazil Annual Report 2018), where complete daily surveys have been conducted during the primary nesting season from September through March, since the 1986/1987 nesting season. Some nesting occurs along the non-index stretches of Povoação and the beaches to the northern part of the area, but it is minor relative to nesting on the index survey area (Thomé *et al.* 2007). To calculate the index of nesting female abundance (*i.e.,* 27 nesting females) for the Espírito Santo index area, we divided the total number of nests between the 2014/2015 and 2016/2017 nesting seasons (*i.e.,* a 3-year remigration interval; Thomé *et al.* 2007) by the clutch frequency (5 clutches/season; Thomé *et al.* 2007; Tiwari *et al.* 2013).

Minimal, scattered nesting has been reported on beaches outside Espírito Santo (Barata and Fabiano 2002; Thomé *et al.* 2007; Bezerra *et al.* 2014), but these beaches exhibit suboptimal sand characteristics for nesting, limiting the possibility of substantial nesting expansion into those areas (Thomé *et al.* 2007). Therefore, while the nest counts from the index beach surveys do not provide a full estimate of all nesting for

the DPS, they provide a high-quality dataset, account for the majority of the nests (approximately 80 percent; Colman *et al.* 2019), and are used for determining our index of nesting female abundance and the nest trend in the next section.

Our total index of nesting female abundance is similar to the IUCN Red List assessment's estimate of 35 mature individuals (female and male, assuming a 3:1 sex ratio) based on nesting data through 2010 (Tiwari *et al.* 2013).

The total index of nesting female abundance (*i.e.,* 27 nesting females at the index beach) places the DPS at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). These processes, working alone or in concert, place small populations at a greater extinction risk than large populations, which are better able to absorb losses in individuals. Due to its small size, the DPS has limited capacity to buffer such losses. Given the intrinsic problems of small population size, we conclude that the nesting female abundance is a major factor in the extinction risk of the SW Atlantic DPS.

Productivity

The SW Atlantic DPS exhibits an increasing, although variable nest trend. Long-term monitoring data for this small DPS are limited to the index nesting survey area in southeastern Brazil, where data has been collected between the 1986/1987 and 2016/2017 nesting seasons. Over the 31-year data collection period, the mean annual number of nests for these beaches was 35. While this is below the criterion of 50 annual nests for conducting a trend analysis, we determined that this site should nevertheless be included due to the high quality and consistency of the data, and the fact that these data accurately represent the low level of nesting of this DPS. The median increase in nest counts was 4.8 percent annually (sd = 5.8 percent; 95 percent CI = −8.4 to 15.5 percent; f = 0.832; mean annual nests = 35). As the index area hosts the majority of known nesting activity, these data are representative of the entire DPS. We conclude that nesting has increased from 1986 to 2017. Our trend estimate is similar to that of the IUCN Red List assessment, which characterizes the population as increasing (Tiwari *et al.* 2013). It is also in agreement with the recent study by Colman *et al.* (2019), which describes the trend as increasing but variable, with the mean annual number of nests increasing from 25.6 nests in the first 5 years to 89.8 nests in the last 5 years of monitoring (between 1988 and 2017).

While the long term trend indicates an increase in nesting, the most recent 3 years of data (*i.e.,* 30, 64, and 38 nests from 2014 to 2016) show a marked reduction in nests compared to the previous 3 years (*i.e.,* 78, 124, and 102 nests from 2011 to 2013). The reason for this reduction is unknown. It could reflect declining nesting female abundance or changes in productivity metrics (*i.e.,* a longer remigration interval or reduced clutch frequency) related to environmental shifts or prey availability. Therefore, there is uncertainty regarding whether the increasing trend will continue.

The productivity parameters for this DPS are fairly typical for the species. In Brazil, the average clutch size appears to be on the lower end of the range for Atlantic populations; conversely, Brazilian nests tend to have a higher average number and percentage of eggs per clutch (Thomé *et al.* 2007). Therefore, the egg production of this DPS appears to be weighed more towards production of viable, hatchling-producing eggs compared to other Atlantic populations (Thomé *et al.* 2007). Nesting females produced an average of 3,496 hatchlings annually over the past 10 years of nesting, which was calculated by multiplying 60.4 nests annually, 87.7 eggs per nest, and 66.0 percent hatching success (Colman *et al.* 2019). This estimate does not include the limited nesting outside the index area. The mean size of nesting females (CCL) has changed from 159.8 cm, with a range of 139 to 182 cm (Thomé *et al.* 2007) to 152.9 cm ± 10.0 SD, with a range of 124.7 to 182.0 cm; the decrease was statistically significant and may indicate recruitment (Colman *et al.* 2019). Hatching success has increased from a mean of 65.1 percent (with a range of 53.3 to 78 percent; Thomé *et al.* 2007) to a mean of 66 percent (with a range of 38.8 to 82.4 percent; Colman *et al.* 2019).

While the overall nest trend for this DPS is increasing, there is uncertainty regarding the continuation of this trend, given the data for the past 3 years. The population remains extremely small, and thus overall productivity is limited. Additionally, the potential for population growth is not clear, given the limited suitable nesting habitat available. We conclude that limited productivity places the DPS at risk of extinction.

Spatial Distribution

The SW Atlantic DPS comprises a single, small nesting aggregation concentrated on the beaches of one state in Brazil (Espírito Santo). A tagging study has shown internesting movements along 300 km of the coast, including over 100 km on either side of known nesting beaches (Almeida *et al.* 2011), indicating connectivity throughout this area. The nesting spatial distribution is extremely restricted, with nesting constrained to a small area, with little suitable nesting habitat into which it can expand. Conversely, the DPS exhibits a broad foraging range, extending south to waters off Uruguay and Argentina, throughout the pelagic waters of the South Atlantic, and across to western Africa (Almeida *et al.* 2011).

The wide distribution of foraging areas likely provides some level of buffer for the DPS against local catastrophes or environmental changes that could limit prey availability. However, the limited nesting range, and apparent lack of suitable nesting beaches into which to expand, renders the DPS highly susceptible to detrimental environmental impacts, both acute (*e.g.,* storms and singular events) and chronic (*e.g.,* sea level rise and temperature changes). Any such change would impact the entire extent of the DPS's nesting habitat. With no metapopulation structure, the DPS has reduced capacity to withstand other catastrophic events. Thus, despite widely distributed foraging areas, the extremely narrow nesting distribution and lack of population structure increases the extinction risk of the SW Atlantic DPS.

Diversity

Despite its extremely low nesting female abundance, the Brazilian nesting aggregation has the second-highest haplotype diversity among all Atlantic populations (h = 0.498 − 0.532; Dutton *et al.* 2013; Vargas *et al.* 2017). According to Thomé *et al.* (2007), while most nesting occurs from September through March, sporadic nesting has been recorded throughout the year, which may provide temporal resilience if environmental conditions limit nesting during the primary nesting season. The use of estuarine waters (of the Rio de la Plata) as a year-round foraging ground is an unusual characteristic shared with the SE Atlantic DPS (Lopez-Mendilaharsu *et al.* 2009; Prosdocimi *et al.* 2014). Despite genetic and foraging diversity, the limited size and range of the nesting aggregation reduces the resilience of this DPS.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Within the limited nesting range of the SW Atlantic DPS, habitat modification is a threat. The 2015 collapse of a tailings dam at an ore mine upstream of the index nesting survey area had an undetermined, but potentially long-term, impact on the nesting beach of the DPS. Tens of millions of cubic meters of heavy metal-laden mining waste entered the Doce River and ultimately passed through the mouth of the river, in the middle of the index nesting area. Nests laid near the river mouth were relocated to prevent hatchlings from entering polluted waters. Hatching success was not significantly different between years in the period of 2012 to 2017, which include three seasons before (2012–2014) and three seasons after (2015–2017) the mining event (Colman *et al.* 2019). While no difference was noted in the distribution of nests following the dam breach, non-lethal impacts to individuals encountering the polluted waters, especially hatchlings, could not be measured. Such impacts may have occurred but may not be evident for decades following the spill. Projeto TAMAR is monitoring for heavy metals in eggs and nesting females and is closely watching for changes in fitness and reproductive parameters (Thomé *et al.* 2017). As a result of the dam's collapse, the Brazilian Federal government is implementing a marine protected area (APA-Area de Protecao Ambiental da Foz do Rio Doce), including about 100 kilometers of coastline, which should encompass the entire extension of the index nesting beaches, with both coastline and surrounding marine areas. Such a measure is an environmental compensation for the dam's collapse, and should be implemented with specific resources in the coming years (ICMBio, MMA, Brazil; J. Thomé, Projeto TAMAR, pers. comm., 2019).

Beach erosion and tidal flooding are also threats to this DPS. According to Thomé *et al.* (2007), occasional relocation of nests and nest protection occur when inundation or predation risk is considered high. The majority of nests are relocated when in danger of beach erosion or tidal flooding (J. Thomé, Projeto TAMAR, pers. comm., 2019).

Although coastal light pollution has been documented to be increasing in Brazil, nesting has not been notably impacted thus far (Colman *et al.* 2018). The lack of impact may be attributable to conservation strategies including the creation of protected areas and minimization of direct lighting on the nesting beaches. Nests are relocated from heavily lit areas. All light sources with a light intensity greater than 0 lux (lux = lumen per m^2) on these beaches are prohibited by a Federal ordinance (Portaria IBAMA 11/1995). Construction, lighting, and poaching were not considered a significant problem at the leatherback nesting beaches by Thomé *et al.* (2007). However, such problems persist in several other turtle nesting beaches in Brazil (Mascarenhas *et al.* 2004; Lara *et al.* 2016). More recently, coastal development and artificial lighting have been identified as potential threats for leatherback turtles on the beaches of Espírito Santo (TAMAR/Unpublished data) and further research is needed to better understand these threats. Nests are relocated from heavily lit areas. Colman *et al.* (2018) found a negative relationship between nest density and light levels. Additionally, as oil industry and other economic developments are explored, the potential threat to the nesting habitat may increase (Thomé *et al.* 2007).

A significant portion of the nesting beach is protected as a Federal reserve under Brazilian Decree no. 90222 (September, 25 1984), which covers 15 km of Comboios Beach, south of the mouth of the Doce River. An additional 22 km, south of the reserve, falls within indigenous land that has restricted access under Federal law. No Federally protected areas exist north of the Doce River mouth, where Povoação Beach occurs. However, local, state, and Federal regulations provide some coastal zone protections in that area.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization poses a threat to the SW Atlantic DPS. Though specific information on leatherback turtle harvests is not available, there was historically traditional harvest of sea turtles and eggs in Espírito Santo (Hartt 1941; Medeiros 1983). This harvest, however, has been largely curtailed through the work of Projeto TAMAR, which promoted other economic activities and hired ex-turtle hunters to protect nests (Marcovaldi *et al.* 2005; Almeida and Mendes 2007). The capture of leatherback turtles was banned in Brazil in 1968, and full protection for all sea turtles was enacted in 1986 (Marcovaldi and Marcovaldi 1999). At present, egg poaching has been reduced, and there is no known subsistence hunting for sea turtles of any species (Thomé *et al.* 2007). As previously noted, there is protection for or limited access to much of the nesting habitat south of the Doce River. However, this protection does not extend north of the river, where additional nesting occurs. Because of the very small size of the population, even very low levels of egg poaching have the potential to impact the population. Therefore, we conclude that overutilization poses a threat to the SW Atlantic DPS.

Disease or Predation

While we could not find any information on disease for this DPS, predation is a threat to the SW Atlantic DPS. Invertebrates, reptiles, and mammals prey on eggs, while hatchlings fall prey to land, air, and marine predators. According to Thomé *et al.* (2007), relocation and protection of nests may be undertaken when inundation (primarily) or predation (secondarily) risk is considered high (J. Thomé, Projeto TAMAR, pers. comm., 2019). Predators include foxes (*Cerdocyon thous*), raccoons (*Procyon cancrivorus*), and domestic dogs, although there are no quantitative estimates of predation for this DPS (J. Thomé, Projeto TAMAR, pers. comm., 2019). Some predation of large juveniles and adults occurs in the marine environment, especially by sharks (Bornatowski *et al.* 2012), but the frequency and impact on those populations is not well understood. For this DPS, predation primarily impacts productivity (*i.e.,* reduced egg and hatching success). We conclude that predation is a threat to the SW Atlantic DPS, but that there is insufficient information to classify disease as a threat.

Inadequacy of Existing Regulatory Mechanisms

The SW Atlantic DPS is protected by several regulatory mechanisms. For each, the Team reviewed the objectives of the regulation and to what extent it adequately addresses the targeted threat.

Beach habitat is protected throughout much of the nesting range of this DPS. The vast majority of nesting occurs in Espírito Santo, where beaches have been protected since 1982. All light sources with a light intensity greater than 0 lux (lux = lumen per m^2) on these beaches are prohibited by a Federal ordinance (Portaria IBAMA 11/1995).

The take of leatherback turtles is illegal throughout the SW Atlantic Ocean. Regional regulations include: Brazil Portaria, Manter proibida a captura de tartarugas marinhas das espécies *Caretta, Dermochelys coriacea, Eretmochelys imbricata* e *Lepidochelys*

olivacea[2] No.27/1982; Uruguay Presidential Decree 144 and additional legislation to reduce bycatch and prevent habitat alteration, and to prevent the removal of individuals from their natural environment; Argentina National Decree 666 from 1997; and various laws prohibiting hunting and selling sea turtles. Harvest and consumption of sea turtles are illegal under Brazilian law (Law on Environmental Crimes N° 9605/1998). While these protections are mostly effective, very low levels of egg poaching still exist (Thomé *et al.* 2007).

Fisheries bycatch is the primary threat to the SW Atlantic DPS. Although regulations address this issue to some extent, they do not do so adequately and it continues to be a threat. In 2001, Brazil established the National Plan for the Reduction of Incidental Capture of Sea Turtles in Fishing Activities (Marcovaldi *et al.* 2005). However, bycatch continues to be a major problem. In Brazil, the use of TEDs in trawl fisheries is mandatory (Instrução Normativa MMA No. 31; December 13, 2004), but most fishermen nevertheless do not use such gear, and there is little or no enforcement by authorities (IAC Brazil Annual Report 2018). The UN established a worldwide moratorium on drift gillnet fishing effective in 1992, the General Fisheries Commission for the Mediterranean prohibited driftnet fishing in 1997, and the International Commission for the Conservation of Atlantic Tunas (ICCAT) banned driftnets in 2003. Despite these and other numerous regulations and international instruments to protect sea turtles, significant bycatch still occurs in artisanal and commercial fisheries operating in the territorial waters of Argentina, Uruguay, and Brazil and on the high seas (González *et al.* 2012).

In summary, while numerous regulatory mechanisms have been enacted to provide some protections to leatherback turtles, their eggs, and nesting habitat throughout the range of this DPS, they have been inadequate. Many do not effectively reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. Fisheries bycatch, in particular, remains a major threat to the DPS despite regulatory mechanisms. We conclude that the failure to implement and enforce effective regulations is a threat to the DPS.

[2] Prohibition of the capture of sea turtles of the species *Caretta caretta, Dermochelys coriacea, Eretmochelys imbricata,* and *Lepidochelys olivacea.*

Fisheries Bycatch

Fisheries bycatch is the primary threat to the SW Atlantic DPS. Leatherback turtles are captured as bycatch in commercial and artisanal fisheries, along coastal foraging and breeding areas, and on the high seas. The extensive foraging range of this DPS makes it vulnerable to interactions with fisheries off the coasts of Brazil, Uruguay, and Argentina, in the pelagic waters of the South Atlantic Ocean, and along the coastal waters off western Africa. Recoveries of females tagged in Espírito Santo are scarce, however. Three were found dead on the Brazilian coast (incidentally captured in fisheries around the Doce River mouth (TAMAR, unpublished data)), one in Argentina (Alvarez *et al.* 2009), and one in Namibia, West Africa (Almeida *et al.* 2014). Fisheries interaction information specific to this DPS is limited, because the data do not differentiate among individuals from this DPS and SE Atlantic individuals that forage within the same range. Because the SE Atlantic DPS is much more abundant than the SW Atlantic DPS, most fishery interactions likely involve SE Atlantic individuals. However, data about bycatch involving the SE Atlantic DPS is informative because the impact to the SW Atlantic DPS individuals is likely to be proportional to their relative presence in the area. Bycatch in gillnets; surface, deep-water longline hooks; and trawls are the principal causes of sea turtle deaths, with not only higher interaction numbers, but higher mortality rates than other fishery interactions (Kotas *et al.* 2004; Pinedo and Polacheck 2004; Tudela *et al.* 2005; Giffoni *et al.* 2013).

Coastal gillnet fisheries interactions are one of the largest threats to the survival of the SW Atlantic DPS. In an analysis of Brazilian fishery data from 1990 to 2012, Giffoni *et al.* (2013) documented 237 leatherback turtle interactions, and 31 percent mortality, in coastal set, fixed, encircling, and pelagic drift gillnets. The actual number of interactions is likely substantially higher, as many interactions go unreported.

Smaller scale artisanal gillnet fisheries occur in coastal waters that are used by SW Atlantic individuals for mating, access to nesting beaches, and foraging. Thomé *et al.* (2007) described the occurrence of artisanal gillnet fisheries close to the nesting beach but indicated that Brazil was investing resources in developing lower-impact fishing techniques. However, such fisheries occur throughout other important coastal foraging areas off South America. Additionally, coastal artisanal gillnet fishery interactions with leatherback turtles are known to occur off the western coast of Africa, where some individuals from the SW Atlantic DPS forage (Riskas and Tiwari 2013). The Rio de la Plata estuary, an important foraging area off Uruguay, has numerous documented instances of leatherback turtle entanglements, including mortalities from coastal bottom-set gillnet fisheries (Fallabrino *et al.* 2006; Lopez-Mendilaharsu *et al.* 2009; Velez-Rubio *et al.* 2013).

Larger-scale commercial ocean gillnet fisheries are also a significant threat for the SW Atlantic DPS, with high bycatch rates reported off Brazil in drift and set gillnets (Fiedler *et al.* 2012; Ramos and Vasconcellos 2013). Drift gillnet fishing off Brazil started in 1986, targeting hammerhead sharks (Domingo *et al.* 2006). Marcovaldi *et al.* (2006) reported that leatherback turtles comprised about 70 percent of all sea turtles captured in Brazilian driftnet shark fisheries. From 2002 to 2008, 351 sea turtles were incidentally caught in 41 fishing trips and 371 sets. Leatherback turtles accounted for 77.3 percent of the take (n = 252 turtles, capture rate = 0.1405 turtles/km of net) with 22.2 to 29.4 percent of turtles dead upon retrieval and no estimate of post-release mortality for those released alive. The annual catch by this fishery ranged from 1,212 to 6,160 leatherback turtles, as estimated based on bootstrap procedures under different fishing effort scenarios in the 1990s (Fiedler *et al.* 2012). In 1998, a Brazilian Federal ordinance limited the use and transport of bottom and drift gillnets over 2.5 km long. Such regulations were difficult to enforce, and vessels from the ports of Itajaí, Navegantes and Porto Belo, Santa Catarina, Brazil, deployed nets up to 7,846 m long between 2005 and 2006 (Kotas *et al.* 2008). In 2010 the ordinance was suspended, permitting unrestricted fishing with driftnets (Fiedler 2012). The shark drift gillnet fishery declined steeply in later years, with no vessels operating in 2009 (UNIVALI/CTTMar 2010) likely because of target species reduction, reduced profitability, and IBAMA Normative Instruction N166/2007 which temporarily stopped the issuance of new driftnet fishing licenses and established a 2-year deadline by which vessels were to replace driftnets with other gear. Various other gillnet fisheries, such as bottom gillnets for sharks and mollusks, have reported leatherback mortalities as well, such as that occurring off Uruguay (Fallabrino *et al.* 2006; Laporta *et al.*

2006; Eckert *et al.* 2009) and the western coast of Africa (Riskas and Tiwari 2013).

Longline fisheries pose a significant threat to the SW Atlantic DPS, as the spatio-temporal distribution of leatherback turtles overlaps with longline fishing effort (Fossette *et al.* 2014). In a review of reported, observed takes in hook and line fishery (primarily longline) interactions with leatherback turtles in all of Brazil from 1990 to 2012, 1061 takes were documented, with 3 percent of the taken turtles found dead on the line and another 37.5 percent of unknown condition after release (Giffoni *et al.* 2013). High frequencies of leatherback deaths from bycatch have been documented on longline fishing vessels from southern Brazil and Uruguay (Kotas *et al.* 2004; Pinedo and Polacheck 2004; Domingo *et al.* 2006; Giffoni *et al.* 2008; Monteiro 2008). Between 2004 and 2005, in a study off southern Brazil, eight leatherback turtles were captured, with a mean capture rate of 0.03 turtles per 1,000 hooks (Monteiro 2008). In 1999, there were 70 longliners in the Brazilian fleet, with 33 vessels operating out of southern Brazil and fishing a total of 13,598,260 hooks (ICCAT 2001). However, the overall effort in the area was much higher, as longliners from Uruguay, Chile, Japan, Taiwan, and Spain fish in this area (Folsom 1997; Weidner and Arocha 1999; Weidner *et al.* 1999). Scientific observers documenting 10 trips by longline vessels from the Uruguayan fleet operating in the SW Atlantic Ocean between 26° and 37° S between April 1998 and November 2000 observed 27 incidentally caught leatherback turtles (Balestre *et al.* 2003). The prevalence of leatherback interactions in pelagic longline fisheries is likely a result of the longline fleet fishing the productive areas in the convergence zone of the Brazilian Current and the cold waters from the Falklands Current (Kotas *et al.* 2004), which coincides with important sea turtle foraging and developmental habitat. As with gillnets, the scope of the longline threat to the SW Atlantic DPS spans across the South Atlantic Ocean in both coastal and oceanic waters. In addition to exposure to longline fisheries off South America, coastal longline fisheries off Cameroon, Angola, and Namibia, and pelagic longlines in the Gulf of Guinea and the eastern portion of the South Atlantic Ocean have also been documented to take leatherback turtles (Honig *et al.* 2007; Riskas and Tiwari 2013; Angel *et al.* 2014; Huang 2015; Gray and Diaz 2017). Additional evidence of longline interactions comes from the stranding data, where flipper injuries on some of the stranded leatherback turtles could have been caused by interactions with pelagic longlines. Onboard observers in longline fisheries off Brazil have reported that leatherback turtles tend to be foul-hooked in the flipper rather than the mouth (Kotas *et al.* 2004; Pinedo and Polacheck 2004; Lima 2007). In 2017, Brazil enacted a law (PORTARIA INTERMINISTERIAL No 74, DE 1o- DE NOVEMBRO DE 2017) requiring the use of circle hooks in the pelagic longline fisheries as well as keeping specified dehooking and gear removal equipment on board any Brazilian longline vessel. Specifically, the Brazilian government required the use of 14/0 or larger circle hooks for all longline vessels targeting swordfish or tuna (*https://www.jusbrasil.com.br/diarios/166677996/dou-secao-1-06-11-2017-pg-81*).

Trawl fisheries also impact the SW Atlantic DPS, mainly along coastal waters off southern Brazil, Argentina, and Uruguay (Gonzalez Carman *et al.* 2011; Velez Rubio *et al.* 2013; Monteiro *et al.* 2016). Although there are fewer interactions with trawl fisheries relative to other fisheries (*i.e.,* gillnet and longline fisheries), mortality rates in trawl fisheries are far higher (Miller *et al.* 2006; Laporta *et al.* 2013). Observation of the Uruguayan bottom trawl fishery, during a tagging and data collection program designed to increase the understanding of the fishery impacts on sea turtles, documented 17 leatherback interactions from April 2002 to June 2005 (Laporta *et al.* 2013). Coastal bottom trawl and artisanal gillnet fisheries were the main causes of death of leatherbacks found stranded in Uruguay (Velez Rubio *et al.* 2013). Recorded interactions in coastal trawl fisheries are also known from Gabon, Congo, and Namibia (Riskas and Tiwari 2013).

Other fisheries such as corrals, pound nets, and pots appear to present a much lower risk for leatherback turtles than to other sea turtle species. From 1990 to 2012, Giffoni *et al.* (2013) documented only two leatherback turtles (both alive) of the 8,367 total sea turtles taken in those fisheries.

While specific information is not available to permit calculating an estimate of overall bycatch and mortality rates of SW Atlantic leatherback turtles, it is clear that fisheries bycatch, especially in gillnets and longlines, is a major threat to the DPS. Immature and adult individuals are exposed to high fishing effort throughout their foraging range and in coastal waters near nesting beaches. Bycatch mortality is also high, with reported rates of up to 31 percent (Giffoni *et al.* 2013). Mortality reduces abundance, by removing individuals from the population; it also reduces productivity, when nesting females are incidentally captured and killed. Given the small size of the DPS, the loss of even a small number of individuals from fishery interactions has the potential to reduce abundance and productivity. Therefore, we conclude that fisheries bycatch is the primary threat to the SW Atlantic DPS.

Vessel Strikes

There is little information regarding vessel strikes for the SW Atlantic DPS. Many of the primary foraging areas for this DPS off the coasts of Argentina, Uruguay, and Brazil are experiencing increased vessel traffic from fishing vessels, cargo transport, and tourism (López-Mendilaharsu *et al.* 2009; Fossette *et al.* 2014), so leatherback turtle interactions with vessels may occur. Affected individuals likely include immature and mature turtles. Impacts range from injury to mortality. We conclude from the best available information that vessel strikes are likely a threat to the DPS.

Pollution

As with all leatherback turtles, entanglement in and ingestion of marine debris and plastics is a threat that likely kills several individuals a year. Multiple studies have implicated the ingestion of marine debris and/or entanglement in cases of injury or death of turtles found in waters occupied by the SW Atlantic DPS (Bugoni *et al.* 2001; Eckert *et al.* 2009; Schulyer *et al.* 2013; Scherer *et al.* 2014). However, no individuals were assigned to a particular population and could have been members of the more abundant SE Atlantic DPS, which is known to occupy the same waters.

While there is no specific information on effects to leatherback turtles of this DPS, pollution from various economic activities including maritime transport, tourism, and domestic and industrial waste discharges that are known to occur within their range, may also have an impact (López-Mendilaharsu *et al.* 2009; Fossette *et al.* 2014). Events such as the failure of a mining tailings dam in 2015 that resulted in the discharge of tons of mining mud contaminated with heavy metals into the Doce River, and subsequently into the waters off Espírito Santo nesting beaches, are also a concern, though no specific impacts to leatherback turtles have so far been noted from that event (Garcia *et al.* 2017). There is also concern about the potential for increased oil and gas exploration activities (Thomé *et al.* 2007). The petroleum industry in Brazil

has implemented a beach monitoring program, along large stretches of the Brazilian coast, including Espírito Santo, to monitor for potential impacts to sea turtles and their nesting beaches from industry activities (Werneck *et al.* 2018)

Assigning impacts of pollution specifically to individuals within the SW Atlantic DPS is difficult, and the best available information does not quantify such impacts. However, given its prevalence, we conclude that pollution poses a threat to the DPS.

Climate Change

Climate change poses a threat to the SW Atlantic DPS. The impacts of climate change include: Increases in temperatures (air, sand, and sea surface); sea level rise; increased coastal erosion; more frequent and intense storm events; and changes in ocean currents.

Because leatherback turtles nest lower on the beach than other sea turtles, their eggs are more at risk of being exposed and destroyed by increases in sea level and coastal erosion (Boyes *et al.* 2010). Additionally, given the limited availability of suitable nesting habitat, the loss of the current nesting habitat with no buffer area to move into would pose a major problem for the DPS. Thus, rising sea level and beach erosion are potential threats to the DPS.

While we do not have specific information on pivotal temperatures and temperature thresholds for egg mortality for this DPS, sand temperatures influence egg viability and sex determination. Given the potential lack of suitable nesting habitat outside the area currently being utilized, there is little opportunity for a spatial shift in nesting in response to changing temperatures. This DPS exhibits some year-round nesting, which provides a small measure of resilience to counteract increasing temperatures. However, it is not likely to be sufficient to make up for the loss of nesting habitat and opportunity resulting from sea level rise and temperature increases. The impacts on productivity and survivorship for such shifts in nesting are unknown.

The threat of climate change is likely to modify the nesting conditions for the DPS. Adverse impacts on turtles of the SW Atlantic DPS would be inescapable because the entire DPS is confined to a limited nesting area. Impacts are likely to range from small, temporal changes in nesting season to large losses of productivity. Therefore, we conclude that climate change is a threat to the DPS.

Channel Dredging

There is evidence of interactions with hopper dredges associated with channel dredging and maintenance. Between 2008 and 2014, four leatherback turtles were killed by hopper dredges in Rio de Janeiro (Goldberg *et al.* 2015).

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply turtles of the SW Atlantic DPS (for a description of each effort, please see the section on conservation efforts for the overall species): Southwest Atlantic Sea Turtle Network, Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), FAO Technical Consultation on Sea Turtle-Fishery Interactions, IAC, MARPOL, IUCN, Ramsar Convention on Wetlands, RFMOs, South Atlantic Association, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the SW Atlantic DPS is at ''high'' risk of extinction. The DPS exhibits a total index of nesting female abundance of 27 females at the index beach. Such a nesting population size places this DPS at risk of stochastic or catastrophic events that increase its extinction risk. Although there has been substantial variability in nesting at the index nesting beach since 1986, the nest trend shows a strong, nearly five percent annual increase through 2017, with the largest increase occurring in the past decade. However, nesting has declined in the past 3 years. There is only one nesting aggregation, limited to a relatively small stretch (47 km) of beach along a single coast. Some nesting also occurs outside that area, but is mostly sporadic and limited by sand and temperatures unsuited for nesting. Thus, stochastic events have the potential to have catastrophic effects on the entire DPS, with no distant subpopulations serving as a buffer or source of additional individuals or diversity. Based on these factors, we find the DPS to be at risk of extinction as a result of its limited abundance, spatial structure, and resilience.

Current threats place this DPS at further risk of extinction. The primary threat to this DPS is bycatch in commercial and artisanal, pelagic and coastal fisheries, especially gillnet and longline fisheries. Fisheries bycatch reduces abundance by removing individuals from the population. Because several fisheries operate near nesting beaches, productivity is also reduced when nesting females are prevented from returning to nesting beaches. Exposure to and impact of this threat are high. Additional threats include: Habitat modification, overutilization, predation, pollution, vessel strikes, and climate change. Habitat modification includes incidents such as the mining dam breach upstream of the Doce River, which flows into the ocean through the middle of the primary nesting beach. Overutilization and predation are threats for this DPS as well, though some protective measures exist. While many laws are in place to protect sea turtles from fishery impacts, the continued impact of bycatch indicates that regulatory mechanisms are inadequate to sufficiently address the threat. Pollution and vessel strikes are potentially increasing threats to the DPS. Climate change is another threat that is likely to increase, resulting in reduced productivity due to greater rates of coastal erosion and nest inundation, and in some areas, nest failure or skewed sex ratios due to increased sand temperatures.

We conclude, consistent with the Team's findings, that the SW Atlantic DPS is currently in danger of extinction. The total index of nesting female abundance make the DPS highly vulnerable to threats despite the apparent increasing nesting trend. In addition, this DPS consists of only one small nesting aggregation with limited potential nesting beaches to the north and south for expansion. The limited nesting range and small size makes the DPS highly vulnerable to stochastic impacts in the natural environment as well as singular, large-scale, anthropogenic events such as oil spills. Some degree of resilience is provided by the use of multiple foraging areas across a vast geographic area. However, that expansive foraging range also exposes the DPS to numerous fisheries (which are coastal and on the high seas, artisanal and commercial, off both South America and western Africa), making fisheries bycatch by far the biggest threat to the DPS. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce the risk of extinction.

We conclude that the SW Atlantic DPS is currently in danger of extinction throughout its range and thus meets the definition of an endangered species. The threatened species definition does not apply because the DPS is at risk of extinction now (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

SE Atlantic DPS

The Team defined the SE Atlantic DPS as leatherback turtles originating from the SE Atlantic Ocean, north of 47° S, east of 20° W, and west of 20° E; the NW boundary is a diagonal line between 12.084620° N, 20° W and 16.063° N, 16.51° W. The eastern boundary occurs at the southern tip of Africa, where the Agulhas and Benguela Currents meet. Along with the cold waters of the Antarctic Circumpolar Current, these currents likely restrict the nesting range of this DPS. We placed the western boundary at the 20° W meridian as an approximate midpoint between SE Atlantic and SW Atlantic (*i.e.,* turtles that nest in Brazil) nesting beaches and to reflect the DPS's wide foraging range throughout the South Atlantic Ocean; this DPS is more likely to be encountered in these waters compared to individuals from the less abundant SW Atlantic DPS. The northern boundary is a diagonal line between the elbow of Brazil and the northern boundary of Senegal because the SE Atlantic DPS does not appear to nest above this boundary (Fretey *et al.* 2007).

The range of the SE Atlantic DPS is extensive, mirroring that of the SW Atlantic DPS. While nesting occurs along the western coast of Africa, data indicate that foraging areas and migratory paths stretch along the Atlantic coast of Africa from Senegal to South Africa, across the South Atlantic Ocean, and into the coastal waters of Brazil, Uruguay, and Argentina. As with the SW Atlantic DPS, this DPS does not appear to forage in northern latitudes.

All nesting for the SE Atlantic DPS occurs along the Atlantic coast of western Africa, from Senegal to Angola, a nesting range of over 7,500 km. However, the vast majority of nesting occurs in Gabon, Equatorial Guinea (including Bioko Island), and the Republic of Congo (TEWG 2007; Fretey *et al.* 2007, Witt *et al.* 2009; Tiwari *et al.* 2013). Gabon may have once hosted the largest nesting aggregation in the world when it was discovered in the early 2000s (Witt *et al.* 2009), but current data indicate much lower levels of nesting (Formia *et al.* in prep) compared to those described in Witt *et al.* (2009).

While nesting occurs along the western coast of Africa, foraging grounds and migratory paths stretch across the South Atlantic Ocean to the coastal waters of Brazil, Uruguay, and Argentina. Because of the greater abundance of this DPS, most individuals found in the western South Atlantic along the coast of South America, and on the high seas, belong to the SE Atlantic DPS. Prosdocimi *et al.* (2014) found 84 to 86 percent of leatherback turtles sampled from the foraging grounds off Argentina and Elevação do Rio Grande (an elevated offshore area across from Brazil) to originate from western African beaches.

Abundance

The total index of nesting female abundance for the SE Atlantic DPS is 9,198 females. We based this total index on nine nesting aggregations in Gabon (n = 8,495 nesting females), Equatorial Guinea (n = 457), Republic of Congo (n = 69), Sierra Leone (n = 39), Liberia (n = 45), Ivory Coast (n = 40), Ghana (n = 4), Cameroon (n = 3), and Sao Tome and Principe (n = 46). Our total index does not include 10 unquantified nesting aggregations in Guinea-Bissau, Angola, and other nations. For more information on data sources and calculations, please see the Status Review Report.

Our total index of nesting female abundance is an index because we do not have consistent data from much of the nesting range of the DPS, which extends from Senegal to Angola. However, the largest nesting aggregations occur in Gabon, Equatorial Guinea (including Bioko Island), and the Republic of Congo (TEWG 2007; Fretey *et al.* 2007; Witt *et al.* 2009; Tiwari *et al.* 2013), which are represented in our total index. The IUCN Red List assessment did not provide an estimate of population size but instead concluded that the subpopulation was ''data deficient'' (Tiwari *et al.* 2013).

To calculate the index of nesting female abundance in Gabon, where annual aerial surveys of 600 km of nesting beaches gather emergence data, we used a remigration interval of 3 years, a clutch frequency of 7.8 clutches per season per female, and estimated that 95 percent of emergences resulted in nesting (Formia *et al.* in prep). Our index of nesting female abundance for Gabon (*i.e.,* 8,495 nesting females) is lower than previous estimates. According to Witt *et al.* (2009), Gabon once hosted the largest leatherback nesting aggregation in the world, with an estimated 36,185 to 126,480 clutches per year (approximately 15,730 to 41,373 nesting females). These estimates were based on a combination of aerial surveys and ground-truthing surveys, conducted during the 2002/2003, 2005/2006, and 2006/2007 nesting seasons. More recent aerial surveys indicate a steep decline in nesting since the early 2000s, with a high of 108,588 estimated nests in 2002/03, a low of 4,275 estimated nests in 2009/10, and fewer than 25,000 nests in the final year of available data (2015/16; Formia *et al.* in prep).

Nesting is scattered on continental Equatorial Guinea (Fretey 2001), but it occurs on several beaches of Bioko Island and is monitored at the Gran Caldera Scientific Reserve (n = 457 nesting females, based on body pit data from the 2000/2001 through 2017/2018 nesting seasons; D. Venditti *et al.,* Drexel University, pers. comm., 2018). Rader *et al.* (2006) documented an average of 3,896 nests annually between the 2000/2001 to 2004/2005 nesting seasons, which equates to approximately 2,338 nesting females (*i.e.,* using a 3-year remigration interval and a clutch frequency of 5 nests annually). Based on the data available on nesting in the Republic of Congo from the 2003/2004 to 2016/2017 nesting seasons (N. Breheret, SWOT, pers. comm., 2018), we estimated 69 nesting females. In an analysis of older data (1999 to 2008), Girard *et al.* (2016) estimated 933 nests per year on the monitored beaches, which equates to approximately 560 nesting females.

In Guinea-Bissau, only one beach is monitored regularly, in Orango National Park, Bijagos Archipelago, where occasional leatherback nesting tracks are recorded. Each season, a few nests are reported elsewhere throughout the nation (Barbosa *et al.* 1998; Fretey *et al.* 2007).

In the Ivory Coast (n = 40 nesting females), Gomez (2005) counted 218 nests over 41 km of beach in February 2001. Peñate *et al.* (2007) reported 189 nests reported from non-exhaustive surveys of 27 km of coastline during the 2001/2002 nesting season.

In Ghana, nest monitoring occurs on three beaches: Mankoadze (n = 4 nesting females), Ada, and Keta. We were unable to calculate the index for Ada and Keta beaches because we only received information on nest averages. From 2000 to 2017, an annual average of 34 nests were observed on Ada Beach (D. Agyeman, pers. comm., 2018). During the 2006/2007 nesting season, 481 leatherback nests were counted on Ada Beach (Allman and Armah 2010). Over an unspecified time frame, an annual average of 80 nests were observed on Keta Beach (A. Fuseini, pers. comm., 2018).

In Cameroon (n = 3 nesting females; Fretey and Nibam unpublished data 2018), Girard *et al.* (2016) estimated an average of 43 leatherback nests annually, which would equate to 26 nesting females, from 1999 to 2008. In São Tomé and Principe (n = 46 nesting females), Girard *et al.* (2016) estimated an average of 78 nests annually from 1999 to 2008, which is similar to our estimate.

Nesting occurs on other beaches throughout western Africa. However, recent consistent and standardized monitoring data are not available. Sporadic nesting occurs in Senegal (Maigret 1978; Dupuy 1986), Republic of The Gambia (Barnett *et al.* 2004, Hawkes *et al.* 2006), Togo (Segniagbeto 2004), Nigeria (Fretey 2001; Mojisola *et al.* 2015), Democratic Republic of Congo, (OCPE-ONG 2006), and Angola (Carr and Carr 1991; Weir *et al.* 2007).

The total index of nesting female abundance of the SE Atlantic DPS (9,198 females) does not reduce the risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). Such abundance provides little resilience to buffer losses of individuals. We conclude that the nesting female abundance, as estimated, does not reduce the extinction risk of this DPS.

Productivity

Based on data collected from the largest nesting aggregation (*i.e.,* Gabon), the SE Atlantic DPS exhibits a declining nesting trend. Data collected between the 2002/2003 and 2015/2016 nesting seasons (with two years of missing data) indicated a median trend in nesting activity of −8.6 percent annually (sd = 21.9 percent; 95 percent CI = –52.6 to 36.9 percent; f = 0.676; mean annual nesting activities = 35,204). The trend in Gabon is likely representative of the entire DPS, because the majority of nesting occurs there. Additional nest trend data are available from the Gran Caldera Scientific Reserve of Bioko Island, where the number of body pits increased 2.8 percent annually (sd = 15.6 percent; 95 percent CI = –27.2 to 36.0 percent) from 1996/1997 to 2017/2018.

Regarding productivity parameters, available information is often from a limited area and may not be representative of the entire DPS. However, based on available data, the size of nesting females, clutch size, hatching success, and incubation period appear to be similar to the species' averages. We conclude that the declining nesting trend contributes to the extinction risk of this DPS.

Spatial Distribution

The SE Atlantic DPS has a broad spatial distribution. The nesting range is centered on Gabon, with nesting occurring from Senegal to Angola. Genetic data available for Gabon and Ghana indicate significant genetic differentiation based on mtDNA data, but weak differentiation based on analysis of nuclear DNA, likely indicating demographically independent subpopulations connected by limited gene flow (Dutton *et al.* 2013).

In addition to the extensive nesting range, this DPS also has an expansive foraging and migratory range, from the coastal waters of Atlantic Africa, across the pelagic waters of the South Atlantic, and along the South American coast from Brazil to Argentina. While nesting along the coast of Africa extends only to Angola, recent tag returns and satellite telemetry indicate that turtles utilize the waters in Namibia as well (Almeida *et al.* 2014). Transatlantic movements were first recorded from tag returns of four leatherback turtles tagged on the nesting beaches of Gabon and recaptured in the waters of Argentina and Brazil (Billes *et al.* 2006). Satellite telemetry confirmed that nesting females from Gabon follow three different post-nesting movement trajectories towards the equatorial Atlantic Ocean, South America, or southern Africa (Witt *et al.* 2011). For combined foraging areas off Argentina and Elevação do Rio Grande (an elevated offshore area across from Brazil), the mean estimate from western Africa was 84 to 86 percent (45 percent Gabon, 41 percent Ghana; Prosdocimi *et al.* 2014).

The wide distribution of foraging areas likely buffers the DPS against local catastrophes or environmental changes that could limit prey availability. The expansive nesting range may buffer the DPS from acute environmental impacts (*e.g.,* storms and singular events) and to some degree, chronic impacts (*e.g.,* sea level rise and temperature changes). Thus, the combination of extensive nesting range, widely distributed foraging areas, and population structure reduces the extinction risk of the SE Atlantic DPS.

Diversity

Genetic analyses for the SE Atlantic DPS are limited, but Dutton *et al.* (2013) found moderate genetic diversity in samples from Gabon and Ghana, including four new haplotypes unique to western African nesting females. Nesting occurs on continental and insular beaches. There are multiple foraging strategies, including pelagic and coastal, along either side of the Atlantic Ocean. The genetic diversity, along with multiple and diverse foraging sites (*i.e.,* coastal and pelagic), and combination of insular and mainland nesting provide diversity and resilience that may reduce the extinction risk of this DPS.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Modification and loss of habitat is a threat to the SE Atlantic DPS. Present threats include obstructions, erosion, and light pollution at nesting beaches. Future threats include coastal construction and development in the region.

Nesting beach obstruction due to logs is a problem in Gabon, Equatorial Guinea, and Cameroon (Formia *et al.* 2003). Logs that have broken loose from timber rafts of industrial logging operations wash up on the beaches of Gabon at densities of up to 247 logs/km; logs blocked 30.5 percent of the beach in Pongara, Gabon, resulting in an estimated 2,111 disrupted or aborted nesting attempts (Laurance *et al.* 2008). In addition, several leatherback turtles have died as result of being trapped by logs (Laurance *et al.* 2008). Pikesley *et al.* (2013) determined that between 1.6 percent and 4.4 percent of nesting females could be trapped at beaches with high log- and turtle-densities. However, Gabon has since banned the export of whole logs. The Gabon Sea Turtle Partnership has carried out log removal efforts for at least one high-density nesting beach in Pongara National Park (Kingere Beach), and a 3 km stretch of nesting beach is now virtually free of logs; at the other main monitored beaches in Gabon, such as Mayumba and Gamba, logs are not a major threat (A. Formia, WCS, pers. comm. 2019).

Habitat loss from coastal erosion due to sand mining, harbor building, and irregular current flows has compromised the suitability of long stretches of coastal areas as nesting sites. This issue is especially prevalent between Ghana and Nigeria (Formia *et al.* 2003). Ikaran (2010) found low hatching/emergence success rates at three nesting sites in Gabon: Pointe Denis (17/16 percent), Mayumba (43/40 percent), and Kingere (16/16 percent).In addition to predation, the main identified sources of egg mortality were beach erosion and inundation (Ikaran 2010).

Light pollution modifies nesting beach habitat, deterring nesting females

and disorienting both hatchlings and nesting females. Bourgeois (2009) found that artificial lighting disoriented leatherback hatchlings in Pongara National Park, Gabon: Hatchlings in 27 of the 41 nests (66 percent) studied crawled towards artificial lights. Deem *et al.* (2007) documented 71 disoriented females that crawled directly into the savannah behind the beach and towards the artificial lights. Bourgeois *et al.* (2009) concluded that light pollution from Libreville and Pointe Denis, Gabon is a major threat to nesting females and hatchlings, which become disoriented and die in the surrounding savannah.

Urbanization and coastal development are rapidly growing threats at some nesting beaches (Girard and Honarvar 2017). There is a high potential for coastal development in Gabon, including the beaches near Pointe Denis, an important and growing tourist area (Ikaran 2010). Along with direct habitat loss from coastal development and urbanization, impacts from pollution and litter are expected to increase.

In Gabon, a network of marine protected areas was created by decree 00161/PR in 2017, covering 26 percent of Gabon's territorial seas, including a vast area in front of the most important nesting beach in Gabon (Mayumba National Park) that stretches to the outer limits of the EEZ.

We conclude that a large portion of nesting females, hatchlings, and eggs are exposed to the reduction and modification of nesting habitat, as a result of logging, erosion, coastal development, and artificial lighting. These threats impact the DPS by reducing nesting and hatching success, thus lowering the productivity of the DPS. Logging also results in the death of nesting females, reducing the abundance of the population by removing its most reproductively important individuals. Based on the information presented above, we conclude that habitat loss and modification are major and increasing threats to the DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is a threat to the SE Atlantic DPS. Although receiving some legal protections, eggs and turtles nevertheless are poached for consumption, traditional medicine, and religious practices.

In Gabon, poaching is limited because 78 percent of nesting occurs within national parks and human population density along the coast is low (A. Formia, Gabon Sea Turtle Partnership, pers. comm., 2018). However, elsewhere in the region, poaching occurs at a high rate, or would be reasonably expected to return to high levels, if not limited by activities funded through the USFWS' Marine Turtle Conservation Fund enacted under the MTCA. These activities reduce poaching through increased presence on nesting beaches, beach monitoring, hiring of local citizens for participation in the projects, and raising awareness and providing education to local communities (M. Tiwari, NMFS, pers. comm. 2018).

Conflicting beliefs about sea turtles exist throughout the region. In some communities sea turtles are considered divinely provided food, while in others they have been historically protected by indigenous custom, often based on stories passed down by ancestors (Barbosa and Regalla 2016; Alexander *et al.* 2017). In general, however, poaching is a significant problem throughout the region. Catry *et al.* (2009) concluded that, in addition to fisheries bycatch, poaching of eggs and nesting females is the main threat to sea turtles, including leatherback turtles, in Guinea-Bissau. In many cases ''few if any turtles or nests are left alone when found by locals'' (Catry *et al.* 2009). The fat of leatherback turtles is often used for various purported medicinal applications, including: Treatment of convulsions and malaria (Togo), fever, fainting spells, liver problems, tetanus (Benin), and to induce vomiting (Togo, Benin). In one community in the Ivory Coast and parts of Cameroon, leatherback turtle fat is applied to wounds in the mouth and is used to massage into painful joints. In northwestern and southern Cameroon, it is applied to bruises (Fretey *et al.* 1999). In Togo, some mothers add turtle bones daily to the baby's bath water; some believe that the power of the turtle (especially the leatherback) will be transmitted to the child through this practice (Segniagbeto 2004).

Turtles and eggs are poached throughout the nesting range of the DPS. Though most nesting females and eggs are protected in Gabon, poaching is widespread in other areas. Poaching of nesting females reduces both abundance (through loss of nesting females) and productivity (through loss of reproductive potential). Such impacts are high because they directly remove the most productive individuals from DPS, reducing current and/or future reproductive potential. Egg poaching reduces productivity. Given the moderate exposure and high impact, we conclude that the poaching of turtles and eggs poses a threat to the DPS.

Disease or Predation

Information on diseases among leatherback turtles originating in the SE Atlantic is minimal, but an analysis of samples from nesting females in Gabon indicated normal blood chemistry parameters (Deem *et al.* 2006). Predation may occur at high rates in some areas, but information is limited.

Predation of leatherback eggs and/or hatchlings has been documented for a variety of predators, including: Various ants, ghost crabs, monitor lizards (*Varanus niloticius*), crows (*Corvus albus*), mongoose, porcupine (*Atherurus africanus*), domestic dogs, African civet cat (*Civettictis civetta and Viverra civetta*), and drills (*Mandrillus leucophaeus*) (summarized from Eckert *et al.* 2012). In Kingere, Gabon, Ikaran (2010) noted high predation rates of eggs by crabs, lizards, mongooses, small cat species, and ants. Predation was the main source of egg mortality at three nesting sites in Gabon: Pointe Denis (43 percent), Mayumba (44 percent), and Kingere (51 to 56 percent; Ikaran 2010).

As is common for all sea turtle species, leatherback hatchlings likely experience predation from various fish species as they enter the water and swim towards the open ocean. In-water predation of juveniles and adults is not well-documented, but there is evidence of shark and killer whale predation. Shark predation was determined to be the cause of one leatherback stranding reported from Central Africa (Parnell *et al.* 2007), while interactions between killer whales and leatherback turtles resulting in possible predation has been observed in Namibian waters (Elwen and Leeney 2011).

While all eggs and hatchlings have some exposure to predation, the species compensates for a certain level of natural predation by producing a large number of eggs and hatchlings. For this DPS, the primary impact is to productivity (*i.e.,* reduced egg and hatching success). We conclude that predation poses a threat to the SE Atlantic DPS.

Inadequacy of Existing Regulatory Mechanisms

The SE Atlantic DPS is protected by various regulatory mechanisms. For each, the Team reviewed the objectives of the regulation and to what extent it adequately addresses the targeted threat.

The harvest of turtles and eggs is illegal in most of the nations where the DPS nests. In some cases, however, these protective mechanisms are inadequate. In addition, many nesting beaches are not protected.

In Gabon, the harvest of turtles and eggs is illegal (2011 decree 0164/PR/

MEF) and much of the nesting beach habitat (and turtles utilizing that habitat) is protected because of inclusion in parks as well as being far from any city or town. However, low levels of poaching occurs, and the threats from encroaching development and associated impacts are increasing.

In Congo, wildlife laws prohibit the hunting and collection of wildlife and their products, including eggs, between November 1 and April 31. Turtles are also protected in the Conkaouati-Douli National Park. However, in areas without permanent beach monitoring, almost all eggs and nesting individuals are collected and eaten (Bal *et al.* 2007).

In the Democratic Republic of Congo, leatherback turtles are cited under the 1982 Hunting Act for protection. However, there is no post-independence legislation protecting sea turtles, and there is little commitment to the legislated protections (Fretey 2001).

Since 1988, Equatorial Guinea has protected all sea turtles under Law 8/1988 and Decree 183/87 on fishing (Tomás *et al.* 2010). However, the poaching of eggs and females for local consumption and sale has occurred (Castroviejo *et al.* 1994).

In Ghana, the Wildlife Regulations Act of 1974 prohibits all harvest of eggs and turtles. However, poverty is prevalent, and eggs and sea turtles are poached at nesting beaches (Tanner 2013). Enforcement is likely inadequate because of funding issues, the remoteness of some nesting beaches, and cultural practices.

Fishery bycatch is the primary threat to this DPS. While most nations in the region have some form of legal protection for sea turtles, many leatherback turtles die from fisheries bycatch throughout the range of the DPS. Examples of fisheries legislation include Brazil's gear restrictions and Nigeria's requirement to use TEDs in bottom trawls.

In summary, numerous regulatory mechanisms provide some protection to leatherback turtles, their eggs, and nesting habitat throughout the range of this DPS. Though the regulatory mechanisms provide some protection to the turtles, many do not adequately reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. Fisheries bycatch, poaching, and habitat loss remain major threats to the DPS despite regulatory mechanisms. We conclude that inadequacy of the regulatory mechanisms are a threat to the SE Atlantic DPS.

Fisheries Bycatch

Fisheries bycatch is the primary threat to the SE Atlantic DPS. Leatherback turtles are captured as bycatch in commercial and artisanal fisheries along coastal foraging and breeding areas as well as on the high seas. Because of the overlapping range with the SW Atlantic DPS, this DPS is vulnerable to interactions with fisheries off the coasts of Brazil, Uruguay, and Argentina, in the pelagic waters of the South Atlantic Ocean, and along the coastal waters off western Africa. Therefore, the information presented on the fisheries bycatch for the SW Atlantic is applicable to this DPS.

One of the biggest threats for leatherback turtles in Atlantic waters is bycatch in artisanal and commercial fisheries (Wallace *et al.* 2010; Riskas and Tiwari 2013;). Lewison *et al.* (2004) estimated that 30,000 to 60,000 leatherback turtles were taken as longline fisheries bycatch in the entire Atlantic Ocean in 2000. Stewart *et al.* (2010) estimated that in West Africa, Benin, Togo, and Cameroon had the highest average fishing densities, ranging from 11.1 to 6.5 boat-meters/km^2, and gillnet densities ranked among the highest on a global scale. Despite very active artisanal and industrial fisheries in the region, overall bycatch data are quite sparse or qualitative (rather than quantitative) in nature, and Africa still represents a significant gap in bycatch evaluation studies (Wallace *et al.* 2010, 2013). Accurate and reliable bycatch data are difficult to achieve, as direct observation rates are low (<1 percent of total fleets) and statistics from the region's many small-scale fisheries are largely incomplete (Kelleher 2005; Moore *et al.* 2010; Wallace *et al.* 2010). However, several studies have concluded that bycatch rates in the region are high, given the degree of fishing activity near nesting and foraging areas (Lewison *et al.* 2004; Moore *et al.* 2010; Wallace *et al.* 2010).

Along the coasts of Angola, Namibia, and South Africa, Honig *et al.* (2007) evaluated turtle bycatch by longline fisheries in the Benguela Large Marine Ecosystem by using data from observer reports, surveys, and specialized trips from the coastal nations of South Africa, Namibia and Angola. They estimated bycatch at 672 leatherback turtles annually (based on an annual bycatch estimate of 4,200 turtles, of which approximately 16 percent are leatherback turtles) in the southern and central regions and as many as 5,600 leatherback turtles (based on an annual bycatch estimate of 35,000 turtles) for the entire Benguela Large Marine Ecosystem (Honig *et al.* 2007). Mortality rates were not provided in this study but may range from 25 to 75 percent (Aguilar *et al.* 1995). The estimates mostly include turtles from the SE Atlantic DPS, but telemetry studies indicate that the turtles of the much smaller SW Indian DPS also use this foraging area (Luschi *et al.* 2006; Robinson *et al.* 2016). Evaluating ICCAT data, Angel *et al.* (2014) confirm exposure to high longline fishing effort and some purse seine effort for the population originating from the SE Atlantic Ocean.

The limited bycatch data available for waters of the western coast of Africa show that other fisheries interact with leatherback turtles. Between 2005 and 2015, artisanal fishing nets in Loango Bay in the Republic of Congo killed a total of 45 leatherback turtles; 0 to 628 leatherback turtles were captured or recaptured annually over that time period (Bréheret *et al.* 2017). An assessment of bycatch in the trawling fisheries in Gabon found that leatherback turtles represented only 2 percent of the bycatch despite being the most abundant sea turtle species in Gabonese waters; the low rate is possibly because leatherback turtles do not occur in the section of the water column where the trawl net is towed (Casale *et al.* 2017). Trawl bycatch in the waters around São Tomé and Principe included 4 juvenile leatherback turtles (17 to 21 cm in carapace length) in March 1994 (Fretey *et al.* 1999).

While specific information to estimate overall capture and mortality rates of SE Atlantic leatherback turtles in fisheries is not available, it is clear that bycatch in fisheries, especially gillnets and longlines, are a threat to the DPS across its range. Immature and mature individuals are exposed to high fishing effort throughout their foraging range and in coastal waters near nesting beaches. Mortality is also high. Mortality reduces abundance, by removing individuals from the population; it also reduces productivity, when nesting females are incidentally captured and killed. We conclude that fisheries bycatch is a major, and the primary, threat to the SE Atlantic DPS.

Vessel Strikes

There is little information regarding vessel strikes for the SE Atlantic DPS, but such interactions are a potential, and possibly increasing, threat across at least a portion of this DPS's range. In the western South Atlantic foraging grounds off Brazil, Uruguay, and Argentina, increasing vessel traffic from fishing vessels, cargo transport, and tourism has been noted (López-Mendilaharsu *et al.*

2009; Fossette *et al.* 2014), potentially increasing the likelihood of vessel strikes on leatherback turtles. Although no specific information is available for the waters off western Africa, any economic development along the coast is likely to result in an increase in vessel traffic. We conclude that vessel strikes are a threat to the SE Atlantic DPS.

Pollution

The SE Atlantic DPS faces the threat of pollution across its extensive range throughout the South Atlantic Ocean, from Africa to South America. As the ranges of the SW Atlantic and SE Atlantic DPSs overlap, they are exposed to the same pollutants, which include contaminants, marine debris, and ghost fishing gear. Throughout Africa, marine and coastal pollution is widespread in industrial and urban areas, and garbage litters many developed beaches (Formia *et al.* 2003; Agyekumhene *et al.* 2017). Off the coast of South America, the Argentine and Brazilian coastal waters are increasingly impacted by economic activities, such as maritime cargo transport, tourism, and the discharge of domestic and industrial waste (López-Mendilaharsu *et al.* 2009; Fossette *et al.* 2014).

The Gulf of Guinea has increasingly been the focus of extensive oil exploitation activities, following the discovery of large oil reserves. Drilling activities by large oil corporations, with associated pollution and habitat destruction, are threats to nesting aggregations in the area (Formia *et al.* 2003; Agyekumhene *et al.* 2017). In 2012/2013, oil spills following the dredging of the Port of Pointe-Noire in the Republic of Congo significantly degraded the fauna and flora of Loango Bay, where leatherback turtles occur. However, the ecosystem is believed to be slowly recovering (Bréheret *et al.* 2017). In 2005, a moderate slick of oil on the beaches of Mayumba National Park in Gabon was observed, although its impacts on turtles are unknown (Parnell *et al.* 2007).

In Nigeria, the main sources of pollution include industrial waste, raw/untreated sewage, and pesticides. Oil exploration, exploitation, and transportation have a significant effect on the environment. Spills of crude and refined oil are frequent in the coastal and marine environment, especially during periods of very strong ocean currents, when they can spread to cover the entire 853 km coastline of Nigeria.

It is clear that individuals from the SE Atlantic DPS have a high probability of encountering pollution across their range and throughout their lifecycle. Although the best available information does not quantify such impacts, ample information demonstrates that these threats are ongoing. We conclude that pollution is a threat to the DPS.

Climate Change

Climate change is a threat to the SE Atlantic DPS. The impacts of climate change include: Increases in temperatures (air, sand, and sea surface); sea level rise; increased coastal erosion; more frequent and intense storm events; and changes in ocean currents.

Sea level rise resulting from climate change negatively impacts sea turtle nesting. Erosion of important nesting beaches in Gabon may be at least partially attributable to sea level rise. From 1983 through the 2000s, some areas have lost up to 100 m of beach width, reducing the availability of suitable nesting beach (Gabon Sea Turtle Partnership 2018; *http://www.seaturtle.org/groups/gabon/erosion.html*). Because leatherback turtles nest lower on the beach than other sea turtles, their eggs are more at risk of being inundated and destroyed by increases in sea level and coastal erosion (Boyes *et al.* 2010).

Changes in sand temperatures are likely to impact egg viability and sex determination. Ikaran (2010) found the thermal range of sand over the nesting season to be adequate for hatchling sex ratios to be mixed or even male dominated. In Gabon, the early rainy months tend to produce males, while the later, warmer months produce females, with a tendency towards a net higher production of males. Ikaran (2010) considered the nesting beaches of Gabon to be an important male producing area. However, based on predictions of warming trends, he found that within two decades the ratio could skew towards 100 percent female.

The threat of climate change is likely to modify the nesting conditions for turtles of the DPS, and it is unclear whether they have or can develop the ability to nest in different locations along existing beaches, or on new beaches. Impacts from climate change are likely to range from small, temporal changes in nesting season to large losses of productivity. Therefore, we conclude that climate change is a threat to the DPS.

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply within the range of the SE Atlantic DPS (for a description of each effort, please see the section on conservation efforts for the overall species): Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), FAO Technical Consultation on Sea Turtle-Fishery Interactions, IAC, MARPOL, IUCN, Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa, Ramsar Convention on Wetlands, South-East Atlantic Fisheries Organization, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded overall that the SE Atlantic DPS is at high risk of extinction. The total index of nesting female abundance is 9,198 females. Since 2002, the first year that aerial survey data was collected, nesting activity has declined by −8.6 percent annually in Gabon, the largest nesting aggregation of the DPS, and what was, in 2002, the largest nesting aggregation in the world. This declining trend has the potential to further lower abundance and increase the risk of extinction. Nesting and foraging is broadly distributed; thus, the population is somewhat buffered from stochastic events that could otherwise have catastrophic effects on the entire DPS. There is a metapopulation structure within this DPS, with fine-scale genetic differentiation between Gabon and Ghana. Genetic diversity also appears to be moderate. Based on the reduced nesting female abundance and declining nest trend, we find the DPS to be at risk of extinction, likely as a result of past threats.

Current threats place the DPS at further risk of extinction. The primary threat to this DPS is bycatch in commercial and artisanal, pelagic and coastal, fisheries, especially coastal gillnet and pelagic longline fisheries. Fisheries bycatch reduces abundance by removing individuals from the population. Because several fisheries operate near nesting beaches, productivity is also reduced when nesting females are prevented from returning to nesting beaches. Thus, exposure and impact of this threat are high. Habitat loss or modification is a threat that reduces abundance and productivity and includes the impacts of logs, which block access to the

beaches or trap nesting females and hatchlings. Poaching of turtles and eggs is also a threat to this DPS, although most nesting beaches in Gabon are somewhat protected because they occur in parks or are far from any towns. Many of the beaches outside Gabon (*e.g.,* Guinea-Bissau) have limited or no protection. The degree of overutilization is highly varied across locations, but quite extensive in some areas. Funding from the MTCA has resulted in some reduction of this threat as conservation activities, research, and community involvement results in lower poaching on those beaches. However, poaching continues at high levels in other areas. Additional threats include: predation and disease, inadequate regulatory mechanisms, pollution, and climate change. Predation can be extensive at some specific beaches, but overall it does not occur at a high level. Pollution is a persistent and potentially increasing threat. Ingestion of plastics and entanglement in marine debris result in injury and reduced health, and sometimes mortality. Climate change is likely to result in reduced productivity due to greater rates of coastal erosion and nest inundation, and in some areas, nest failure or skewed sex ratios due to increased sand temperatures. Vessel strikes are a threat that is likely to increase over time as recreational and commercial vessel activity increases, resulting in more opportunity for interactions. Though many regulatory mechanisms are in place, they do not adequately reduce the impact of logs, poaching, and fisheries. Additionally, many areas in the region have little or no enforcement of laws protecting turtles or nests on the beach.

The DPS is relatively data-poor, reducing our ability to quantify threats for more than a small portion of the population. For this reason, the Status Review Team did not come to consensus regarding the extinction risk analysis for the SE Atlantic DPS. All Team members were present to vote on the level of extinction risk. Nine Team members concluded with moderate confidence that the DPS is at high extinction risk due to threats and loss of abundance; their confidence was moderate due to the lack of data on this DPS. Two team members concluded with low confidence that the DPS is at moderate extinction risk; their confidence in this conclusion is low due to the lack of data on this DPS.

We conclude, consistent with the Team's overall conclusion, that the SE Atlantic DPS is currently in danger of extinction. The decreasing nesting trend (*i.e.,* 8.6 percent annually since 2002) is at or near a level that make the DPS highly vulnerable to threats, given the total index of nesting female abundance of 9,198 females. It faces present, ongoing threats that are likely to create imminent and substantial demographic risks (*i.e.,* declining trends and reduced abundance). Though numerous conservation efforts apply within the range of this DPS, they do not adequately reduce the risk of extinction. We conclude that the SE Atlantic DPS is currently in danger of extinction throughout its range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is at risk of extinction currently (*i.e.,* at present), rather than on a trajectory to become so in the foreseeable future.

SW Indian DPS

The Team defined the SW Indian DPS as leatherback turtles originating from the SW Indian Ocean, north of 47° S, east of 20° E, and west of 61.577° E. The western boundary occurs at the southern tip of Africa, approximately where the Agulhas and Benguela Currents meet. The eastern boundary occurs at the border between Iran and Pakistan, where the Somali Current begins. These currents, and the cold waters of the Antarctic Circumpolar Current, likely restrict the nesting range of this DPS.

The range of the DPS (*i.e.,* all documented areas of occurrence) extends into the SE Atlantic Ocean, where leatherback turtles forage in the highly productive Benguela Current Large Marine Ecosystem, which occurs along the western coast of Africa, from Angola to South Africa. Leatherback turtles also range throughout the waters of eastern Africa (Ross 1985) and possibly into the Red Sea (Gasparetti *et al.* 1993). Records indicate that the species has been observed in the waters of the following nations: Djibouti; Eritrea; French Territories (Reunion Island, Mayotte, and Iles Eparses); Kenya; Madagascar; Mozambique; Seychelles; Somalia; South Africa; Tanzania; and Yemen (Hamann *et al.* 2006). Leatherback turtles may occur in the waters of the following nations: Bahrain, Kuwait; United Arab Emirates; Oman; and Sudan (Hamann *et al.* 2006).

Leatherback turtles of the SW Indian DPS nest over a distance of approximately 900 km, from Cape Vidal, South Africa to Bazaruto Islands, Mozambique (Videira *et al.* 2011; Nel *et al.* 2015). The vast majority of nesting (80 to 90 percent) occurs in South Africa, between Bhanga Nek and Leifeld's Rock (Nel *et al.* 2015). In Mozambique, most nesting occurs from the southern border to Inhaca Island, Mozambique, with low levels of nesting farther north at Bilene Beach and Bazaruto Islands (Nel *et al.* 2015). This DPS nests at the highest latitude (and southernmost location) of all leatherback turtles (Saba *et al.* 2015).

Nesting occurs on long (5 to 15 km), broad (50 to 100 m), silica sand beaches with little vegetation (Botha 2010; Nel *et al.* 2015; Robinson *et al.* 2017). The beaches are characterized by pristine, intact dunes that rise up to 100 m above sea level, interspersed with a few dynamic dunes and small, primary dunes (Nel *et al.* 2015). The beaches are separated by short rocky headlands (Robinson *et al.* 2017). Subtidal rock formations are dispersed throughout the high energy coastline. Nesting females approach the beach using strong rip-currents through obstruction-free areas (Hughes 1974; Hughes 1996; Botha 2010; Nel *et al.* 2015).

Foraging areas of the SW Indian DPS include coastal and pelagic waters of the SW Indian Ocean and the SE Atlantic Ocean. The DPS is somewhat unique in that turtles forage in two ocean basins and do not need to undergo long migrations between nesting and foraging areas because highly productive foraging areas are available adjacent to nesting beaches or connected to nesting beaches via fast-moving currents. For example, the warm, fast-flowing Agulhas Current (Lutjeharms 2001; Nel *et al.* 2015) results in high productivity foraging areas near nesting beaches and provides a migratory corridor to distant foraging areas. As a result, the SW Indian turtles have the largest body size, largest clutch size, and highest reproductive output of all leatherback turtles (Saba *et al.* 2015).

Satellite tracking of post-nesting females (n = 27) reveals the use of one of three post-nesting migratory corridors: north into the nearby coastal waters of the Mozambique channel; south and west (via the Agulhas and Benguela Currents) into the pelagic waters of the South Atlantic Ocean; or south and east (via the Agulhas Current and Retroflection) into the oceanic eddies in the SW Indian Ocean (Luschi *et al.* 2006; Robinson *et al.* 2016; Harris *et al.* 2018). Luschi *et al.* (2006) reviewed satellite telemetry data of 11 post-nesting females tagged between 1996 and 2003 (Hughes *et al.* 1998; Luschi *et al.* 2003; Sale *et al.* 2006); and Robinson *et al.* (2016) satellite tracked 16 post-nesting females tagged between 2011 and 2013. Evaluating tracking data for 14 post-nesting females between 2006 and 2014, Harris *et al.* (2018) found that leatherback turtles equally used all three migration corridors. In the other studies, a total of 11 post-nesting

females migrated a relatively short distance (approximately 500 km) to the shallow (less than 50 m depth), coastal waters of the Sofala Banks (*i.e.,* the Mozambique Channel), where net primary productivity and sea surface temperatures remain elevated year-round (n = 4, Sale *et al.* 2006; n = 7, Robinson *et al.* 2016). One post-nesting female migrated to the similarly hospitable coastal waters of Madagascar (Robinson *et al.* 2016). Ten post-nesting females tracked to pelagic waters of the Atlantic Ocean (n = 6, Sale *et al.* 2006; n = 4, Robinson *et al.* 2016). These waters are among the most productive in the world, as a result of strong upwelling (caused by the southeast trade winds) and the area's unique bathymetry, hydrography, chemistry, and trophodynamics (Honig *et al.* 2007). Five post-nesting females appeared to track oceanic eddies into the SW Indian Ocean (n = 1, Sale *et al.* 2006; n = 4, Robinson *et al.* 2016). Luschi *et al.* (2003 and 2006) characterized leatherback turtles using this latter strategy as ''wanderers, ranging over vast oceanic areas while searching for their planktonic prey.'' Opportunistically encountered and highly productive eddies likely shaped the circuitous routes of these foraging turtles, which resemble drifters more than active swimmers (Luschi *et al.* 2006; Robinson *et al.* 2016; Harris *et al.* 2018). Thus, this DPS benefits from the use of three migratory corridors that all provide highly productive foraging opportunities, with minimal energetic cost required to return to waters off nesting beaches.

Abundance

The total index of nesting female abundance of the SW Indian DPS is 149 females. We based this index on two nesting aggregations: South Africa (Ezemvelo KwaZulu-Natal Wildlife (Ezemvelo), unpublished data, 2018) and Mozambique (Centro Terra Viva Estudos e Advocacia Ambiental (CTV), unpublished data, 2018). Our total index does not include two unquantified nesting aggregations in Mozambique. To calculate the index of nesting female abundance (*i.e.,* 134 females) for the South Africa ''monitoring area'' (*i.e.,* a 52.8 km stretch of beach that has been monitored for decades), we divided the total number of nests between the 2014/2015 and 2016/2017 nesting seasons (*i.e.,* a 3-year remigration interval; Hughes 1996; Lambardi *et al.* 2008; Nel *et al.* 2013; Saba *et al.* 2015) by the clutch frequency (7 clutches/season; Nel *et al.* 2013; Saba *et al.* 2015). To calculate the index of nesting female abundance in Mozambique (*i.e.,* 15 females), we divided the total number of nests between the 2015/2016 and 2017/2018 nesting seasons (*i.e.,* a 3-year remigration interval) by the clutch frequency for South Africa (7 clutches/season; Nel *et al.* 2013; Saba *et al.* 2015).

This is an index for the DPS because it only includes available data from recently and consistently monitored nesting beaches. While nesting occurs on beaches that stretch across 900 km of South Africa and Mozambique, consistent and standardized monitoring occurs only across approximately 300 km of beaches across the two nations (Nel *et al.* 2013; Nel *et al.* 2015). Furthermore, while nesting is known to occur at low levels at Inhaca Island and Bazaruto Archipelago in Mozambique, we did not include these sites because we did not have data from the most recent 3 years.

Other estimates of total or annual nesting female abundance have been published. The IUCN Red List assessment estimated the total number of mature individuals (males and females) at 148 individuals, based on an average of 259 annual nests (Nel *et al.* 2013), a 3-year remigration interval (Nel *et al.* 2013), and a 3:1 sex ratio (Wallace *et al.* 2013). Their estimates are based on nesting surveys conducted in South Africa, which hosts approximately 80 to 90 percent of nesting, and Mozambique (Wallace *et al.* 2013; Nel *et al.* 2015). Their estimate is less than our index, despite including mature males and females. The reason for this difference is because they used an average annual number of nests that was lower than recent nest counts over the 3-year remigration interval. Nel *et al.* (2015) estimated the size of the total nesting population at approximately 100 females per season (Nel *et al.* 2015), based on 2010 data: 375 emergences and 336 nests in South Africa; and 61 emergences in Mozambique (Videira *et al.* 2011). This estimate (n = 300, based on a 3 year remigration interval) is greater than our index because there were more nests in 2010 compared to more recent years (2014 to 2016). Hamann *et al.* (2006) estimated approximately 20 to 40 nesting females annually in South Africa and approximately 10 nesting females annually in southern Mozambique. This estimate (n = 90 to 150, based on a 3 year remigration interval) is less than our index, likely as a result of using data collected over a different time-frame. The difference in estimates likely results from using different methods of calculation and different time frames and reflects some uncertainty in the precise number of nesting females. Our total index of nesting female abundance falls within the range of other estimates and is based on the best available data for the DPS at this time.

There are additional published estimates for the South Africa monitoring area. Nel *et al.* (2013) identified 2,578 nesting females over 45 years (1965 to 2009), with a mean of 69.4 ± 38.1 nesting females per season (or 209 total nesting females) in the monitoring area. Hughes (1996) reported an annual average of 24 nesting females in the first decade (1976 to 1985) and an annual average of 86 nesting females in the second decade (1986 to 1995) in the monitoring area. Hughes (1996) also reported an annual average of 113 nesting females from 1986 to 1995 in an extended protected area that includes the monitoring area plus another 93 km in the St. Lucia Marine Reserve, which is surveyed periodically. The difference between these two averages reflects that most estimates of nesting female abundance in South Africa are minimum estimates because nesting occurs outside the monitoring area. Thorson *et al.* (2012) found that annual resightings for leatherback turtles decreased from the 1960s to 2009, and their modeling indicated that this decline was due to decreased detection probabilities (*i.e.,* decreased probability of returning to the monitored portion of the KwaZulu-Natal nesting beach), rather than decreased survival. Based on satellite tracking of 17 post-nesting females, Harris *et al.* (2015) estimates that approximately 66 percent of leatherback nesting activity occurs outside the monitoring area. However, considerable inter-annual variability exists, ranging from less than 30 percent to over 80 percent, with a median of approximately 49 percent (Harris *et al.* 2015). Thus, incomplete beach monitoring is a source of uncertainty for this DPS and for our total index of nesting female abundance.

For Mozambique, our index of nesting females is similar to other published estimates, which are generally less than 20 nesting females (Hamann *et al.* 2006; Louro 2014; Pereira *et al.* 2014; Fernandes *et al.* 2018). If we use the clutch frequency for Ponta Malongane (2.25 clutches per season; Louro *et al.* 2006), which is low for the species, our index of nesting female abundance is 45 females. This clutch frequency may be underestimated due to females nesting in distant areas where monitoring does not regularly occur. If we use the clutch frequency for South Africa, (7 clutches/season; Nel *et al.* 2013; Saba *et al.* 2015), the resulting index of nesting female abundance for Mozambique (*i.e.,* 15

nesting females) is closer to published estimates.

The total index of nesting female abundance of 149 females places the DPS at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). These processes, working alone or in concert, place small populations at a greater extinction risk than large populations, which are better able to absorb losses in individuals. Due to its small size, the DPS has restricted capacity to buffer such losses. Given the intrinsic problems of small population size, we conclude that the limited nesting female abundance is a major factor in the extinction risk of this DPS.

Productivity

The SW Indian DPS exhibits a slightly decreasing nesting trend. We base our conclusion on data consistently collected in a standardized approach in the 56 km South African monitoring area (Ezemvelo, unpublished data, 2018), where nest counts decreased by −0.3 percent annually (sd = 2.1 percent; 95 percent CI = −4.5 to 4.1 percent; f = 0.557; mean annual nests = 301) between the 1973/1974 and 2016/2017 nesting seasons. The trend in South Africa is likely representative of the entire DPS, as 80 to 90 percent of nesting is estimated to occur there (Wallace *et al.* 2013; Nel *et al.* 2015) and the 44-year time series is quite robust.

Our trend estimates yield similar results to other published findings for the population. The IUCN concluded that this population has declined slightly, by 5.6 percent over the past three generations, with an annual decline of −0.1 percent in South Africa and −0.7 percent in Mozambique (Wallace *et al.* 2013). Hamann *et al.* (2006) also identified a declining trend in the nesting population of the SW Indian Ocean. Studies focused on the South African monitoring area (*i.e.,* the source of data for our trend analysis), however, disagree on the whether the trend has declined recently (Hamann *et al.* 2006; Nel *et al.* 2013) or is stable (Nel *et al.* 2015; Saba *et al.* 2015). The nest trend may be stable if nesting in unmonitored areas has increased over time (Thorson *et al.* 2012; Harris *et al.* 2015). Different datasets lead to different conclusions due to different methods of calculation, different time frames, incomplete monitoring of all nesting areas, and therefore uncertainty in the precise number of nesting females. We find that Nel *et al.* (2013) provide the best available published data, which are based on the most recent, primary data, and we agree with their characterization of the trend as declining or recently declining.

Despite the recent decline in nesting, productivity parameters remain relatively high for the SW Indian DPS, which has the largest body size, largest clutch size, and highest reproductive output of all leatherback turtles, likely due to the close proximity between their nesting beaches and highly productive foraging areas (Saba *et al.* 2015). Nel *et al.* (2015) reports that most metrics (*i.e.,* female size, egg size, incubation time, and hatching success) are above average for this DPS. Nesting females produced 1,171 to 53,139 hatchlings each season in the South Africa monitoring area between 1965 and 2009, with an average of 36,583 to 51,610 hatchlings per season, which was calculated by multiplying 480 hatchlings per nesting female by 69.4 ± 38.1 nesting females per season (Nel *et al.* 2013).

The recent nesting decline may reflect the effects of past and current threats that overwhelm the population's high productivity metrics. We conclude that the slightly declining nest trend places the DPS at risk of extinction, which is further exacerbated by the limited nesting female abundance.

Spatial Distribution

The SW Indian DPS comprises, in essence, a single nesting aggregation, with nesting females moving freely between South African and Mozambican beaches (Hughes 1996; Luschi *et al.* 2006; Nel *et al.* 2015). Nesting is limited to a total distance of approximately 900 km along South African and Mozambican coasts (Nel *et al.* 2015). While 80 to 90 percent of nesting is concentrated in South Africa, nesting is somewhat concentrated in the southern section of the South African monitoring area, although most characterize nesting as low density throughout South Africa (Hughes 1974; Lambardi *et al.* 2008; Botha 2010; Nel *et al.* 2013; Harris *et al.* 2015; Nel *et al.* 2015).

The DPS exhibits a broad foraging range that extends into coastal and pelagic waters of the eastern Atlantic and western Indian Oceans (Luschi *et al.* 2006; Lambardi *et al.* 2008; Girondot 2015). There is limited evidence that leatherback turtles may remain in South African waters throughout the year, as suggested by year-round fisheries bycatch records (Luschi *et al.* 2003, 2006; Petersen *et al.* 2009). Some forage off the coast of Madagascar (Robinson *et al.* 2016; Harris *et al.* 2018). Some turtles follow the Agulhas and Benguela Currents into foraging areas in the southeast Atlantic Ocean, off the coasts of Angola and Namibia (Girondot 2015; Robinson *et al.* 2016; Harris *et al.* 2018). Others follow the Agulhas Retroflection and deep-sea eddies into the SW Indian Ocean (Luschi *et al.* 2006; Lambardi *et al.* 2008; Robinson *et al.* 2016; Harris *et al.* 2018). Leatherback turtles, possibly from this DPS, have also been observed in the Red Sea, presumably foraging (Hamann *et al.* 2006). The use of various foraging areas may be influenced by the prevalent currents encountered off the nesting beaches (Luschi *et al.* 2006; Lambardi *et al.* 2008; Robinson *et al.* 2016).

The wide distribution of foraging areas likely buffers the DPS somewhat against local catastrophes or environmental changes that would limit prey availability. Nesting occurs along one coastline, which is 3,000 km in length and may be similarly affected by environmental variation and directional changes (*e.g.,* sea level rise). Because the DPS is essentially a single nesting aggregation, it has limited capacity to withstand other catastrophic events. Thus, spatial distribution likely has little net effect on the extinction risk of the SW Indian DPS.

Diversity

Within the SW Indian DPS, genetic diversity is low, with only two mtDNA haplotypes found in 41 nesting females in South Africa (haplotype diversity = 0.298 ± 0.078 and nucleotide diversity = 0.0004 ± 0.0004; Dutton *et al.* 2013). Nesting habitat is mainly restricted to beaches along the same coast, with a few nests on Mozambican islands. The DPS does not exhibit temporal or seasonal nesting diversity, with most nesting occurring between October and March. The foraging strategies are diverse, however, with turtles using coastal and pelagic waters in the Atlantic and Indian Oceans. Diverse foraging strategies may provide some resilience against local reductions in prey availability or catastrophic events, such as oil spills, by limiting exposure. Low genetic diversity indicates the DPS may lack the raw material necessary for adapting to long-term environmental changes, such as cyclic or directional changes in ocean environments due to natural and human causes (McElhany *et al.* 2000; NMFS 2017). We conclude that limited overall diversity increases the extinction risk of this DPS by reducing its resilience to threats.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Coastal erosion, foot and vehicle traffic, and artificial lighting modify the available, suitable nesting habitat and

thus are threats to the SW Indian DPS. Angel *et al.* (2014) identifies coastal erosion as the main beach-based threat to this population and one that is likely to increase with climate change.

Coastal erosion removes sand from nesting beaches, inundating nests and destroying eggs. Because leatherback turtles nest lower on the beach than other sea turtles, they have greater exposure to tidal erosion and deposition (Boyes *et al.* 2010). At South African nesting beaches over a duration of 70 days, Boyes *et al.* (2010) found an average of 0.62 m deposition (S.D. 0.15 m; range 0.34–0.85 m) and 0.42 m erosion (S.D. 0.17 m; range 0.14– 0.71 m). Because the average depth of leatherback nests was 0.66 m (S.D. 0.19 m; range 0.15–1.07 m), eggs are at some risk of being exposed and destroyed (Boyes *et al.* 2010). Nel *et al.* (2006) concludes that coastal erosion is a threat in South Africa, where the high-energy coastline varies seasonally. During two nesting seasons (2009/2010 and 2010/2011), de Wet (2012) found that 6.3 percent of nests in the South African monitoring area were destroyed by erosion. In Bazaruto Archipelago, Mozambique, coastal erosion and rising sea levels destroyed approximately 12 percent of nests over 10 seasons of monitoring (Videira and Louro 2005; Louro 2006). Despite nest loss due to erosion, hatching success remains high in South Africa (70 to 80 percent; Nel *et al.* 2015; Santidrián Tomillo *et al.* 2015). Though the introduction of *Casuarina* trees do not necessarily increase the risk of erosion, they obstruct nesting females' access to and from beaches and alter nest incubation environments (de Vos *et al.* 2019). Evolving in a high-energy coastline environment with seasonal variation has likely provided the DPS with some resilience to nesting losses due to coastal erosion. Sea level rise as a result of climate change, however, is likely to increase the rate and magnitude of this natural process.

In Mozambique, Louro (2006) describes beach driving as a ''very serious problem.'' Tourism and beach driving are increasing in Ponta Malongane and Bazaruto Island, nesting areas in Mozambique, where there is no legislation regarding beach driving (Louro 2006). Foot and vehicular traffic, for tourism and recreational purposes, have been found to impact nesting beach habitat and turtles in several ways. Beach activities can deter females from using a nesting beach. Beach driving causes sand compaction, which may lower nest success. It also creates ruts that slow hatchlings' crawl to the surf, increasing their vulnerability to predators. Beach driving occurs to a lesser extent in South Africa. Recreational beach driving is allowed on a 1.5 km stretch of beach, and tourism driving (for concession, management, and media) involves a maximum of 10 vehicles per night across 40 km of beach (Nel 2006).

Artificial lighting modifies the quality of nesting beaches because lights over land disorient nesting females and hatchlings. Instead of crawling toward the surf and their marine habitat, they crawl further inland, where they may become dehydrated and die or become susceptible to predation. Within the 280 km of coastline within the iSimangaliso Wetland Park, South Africa, there are only four areas of less than 100 m each that contain artificial lighting (Nel 2006). We were unable to find data on artificial lighting in Mozambique.

The majority of nesting habitat occurs within the 280 km coastline of the iSimangaliso Wetland Park in South Africa, which has been a World Heritage Site since 1999 (UN Educational, Scientific and Cultural Organization 1999; Hughes 2010; Robinson *et al.* 2016). From 1979 to 1999, much of the nesting habitat and nearshore marine habitat was protected, first as the St. Lucia Marine Reserve, then the Maputaland Marine Reserve (Hughes 1996). Such protections contributed to the prevention of dredging a deep water harbor through turtle nesting beaches and mining heavy minerals in the adjacent dunes (Hughes 2009, 2010). In Mozambique, the Ponta do Ouro Partial Marine Reserve has provided beach and marine habitat protection since 2009. Additional protection is provided to Mozambican nesting beaches in: The Ponto du Ouro—Kosi Bay Transfrontier Marine Conservation Area; the Maputo Special Reserve; the Bazaruto Archipelago National Park; and the Quirimbas Archipelago National Park. However, nest protection only occurs over nine percent of the Mozambique coastline (Videira *et al.* 2008; Garnier *et al.* 2012). Such protections have minimized vehicular traffic at nesting beaches in South Africa, but beach driving remains a threat in Mozambique. Erosion is a threat to nesting beaches in both South Africa and Mozambique. Thus, we conclude that the present modification of nesting habitat is a threat to the SW Indian DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is a threat to the SW Indian DPS (Bourjea 2015; Williams *et al.* 2016; Williams 2017). Two of nine leatherback turtles equipped with satellite tags between 1996 and 2006 were incidentally or intentionally captured in Mozambique and Madagascar and likely retained for food or sale (de Wet 2012). In Mozambique, eggs and turtles were once legally harvested and are now illegally poached for consumption (Nel 2012; Wallace *et al.* 2013; Fernandes *et al.* 2018). Turtle poaching includes turtles taken on the beaches and at sea (Williams *et al.* 2016; Williams 2017). We do not have recent, quantitative estimates of egg or turtle poaching in Mozambique. However, significant usage has been documented at various points in time. Hughes (1995) reported that nearly every nesting female was killed during the civil war (1977 to 1992). An estimated 32 loggerhead and leatherback turtles were killed at Ponta Malongane in 11 years (Louro 2006). Recent egg and turtle poaching rates in Mozambique have been qualitatively described as ''alarming,'' ''significant,'' ''widespread,'' ''prominent,'' and ''prevalent'' (Fernandes *et al.* 2015; Williams *et al.* 2016; Williams 2017; Pereira and Louro 2017; Fernandes *et al.* 2017; Fernandes *et al.* 2018). Nest monitoring programs in Mozambique have provided some protection since the 1990s (Garnier *et al.* 2012). Pereira *et al.* (2014) reports that as a result of the monitoring program at the Ponta do Ouro Partial Marine Reserve, where the majority of nesting in Mozambique occurs, turtle mortalities are very rare. Egg poaching has been reduced in the Bazaruto Archipelago, where it was previously prevalent (Louro 2006). National legislation in Mozambique include: Diploma Legislativo 2627 (7 August 1965), Forest and Wildlife Regulation (Decree 12/2002 of 6 June 2002) and Conservation Law (Law 5/2017 of 11 May). These laws protect turtles and eggs and impose fines for poaching or possession. However, the laws are poorly implemented and enforced (Costa *et al.* 2007; Louro 2006; Williams *et al.* 2016; Fernandes *et al.* 2018). We conclude that the poaching of turtles and eggs remains a significant threat in Mozambique.

Poaching of turtles is also a threat in Madagascar, where leatherback turtles caught in gillnets are taken back to local villages and consumed, which is documented to have occurred twice in 2016 (Williams 2017). Leatherback turtles were caught and consumed or sold in five of eight Malagasy villages surveyed between October 2004 and March 2004. Fishers reported that leatherback turtles were uncommon but large, possibly indicative of mature individuals (Walker and Roberts 2005).

No leatherback turtles were reported caught during a 2007 Malagasy village survey (Humber *et al.* 2010). Although protected by Presidential Decree (2006–400), fishers target turtles at sea for consumption (Ratsimbazafy 2003; Epps 2006; Humber *et al.* 2010). Humber *et al.* (2010) report that the Malagasy law is not adequately implemented due to lack of enforcement, a reluctance to manage the local, cultural fishery, and the size of the coastline (Rakotonirina and Cooke 1994; Okemwa *et al.* 2005). We conclude that the poaching of turtles remains a significant threat in Madagascar.

Egg and turtle poaching does not appear to be a significant threat in South Africa. Prior to the ban on egg harvest in 1963, substantial numbers of leatherback eggs in South Africa were harvested, likely contributing to the critically low number of nesting females at that time (Nel *et al.* 2015). Hughes *et al.* (1996) concluded that nesting females were not harvested. As a result of the ban, and with a lucrative tourism industry centered on the nesting turtles, egg and turtle harvest has been nearly eliminated (Hughes *et al.* 1996). Nesting females and hatchlings receive ''intensive and effective'' protection, as most nesting beaches fall within the iSimangaliso Wetland Park (Nel *et al.* 2015). Such beach protections have been key to recovering the number of nesting females to current levels (Hughes *et al.* 1996; Saba *et al.* 2015; Nel *et al.* 2015). We conclude that the poaching of turtles and eggs is not a significant threat in South Africa.

Exposure to poaching is low in South Africa, where the majority of females nest. Few females nest in Mozambique, reducing the DPS's overall exposure to egg and nesting female poaching during nesting. However, turtles regularly forage in the Mozambique Channel, where they may be poached along the coasts of Mozambique and Madagascar. Poaching of nesting females or post-nesting females (*i.e.,* on land or at sea) reduces both abundance (through loss of nesting females) and productivity (through loss of reproductive potential). Such impacts are high because they directly remove the most productive individuals from DPS, reducing current and/or future reproductive potential. Egg poaching reduces productivity. We conclude that overutilization, as a result of poaching of turtles and eggs, poses a threat to the DPS.

Disease or Predation

While we could not find any information on disease for this DPS, predation is a threat to the SW Indian DPS. In South Africa, nest predators include feral dogs, side-striped jackals, honey badgers, and ghost crabs (Hughes 1996; Nel 2006). In the 1960s, the removal of feral dogs greatly reduced nest predation. Similarly, jackals were once a threat (Hughes 1996). However, nest predation by jackals has not been observed for 17 years (R. Nel, pers. comm. April 15, 2019). Nel (2006) reports current rates of predation as relatively low. Nel *et al.* (2013) reports that there is no evidence for significant beach predation on South African beaches. Describing nest predation as minimal in South Africa, de Wet (2012) found that 15.7 percent of nests were depredated in the 2009/2010 and 2010/2011 nesting seasons; ants and ghost crabs were the main cause of egg mortality. During the two seasons, ghost crabs consumed 3.2 percent of hatchlings as they made their way to the sea (de Wet 2012).

While all eggs and hatchlings have some exposure to predation, the species compensated for a certain level of natural predation by producing a large number of eggs and hatchlings. For this DPS, the primary impact is to productivity (*i.e.,* reduced egg and hatching success). We conclude that, though much reduced, predation still poses a threat to the SW Indian DPS.

Inadequacy of Existing Regulatory Mechanisms

The SW Indian DPS is protected to some degree by several regulatory mechanisms. For each, we review the objectives of the regulation and to what extent it adequately addresses the targeted threat.

Despite efforts to reduce impacts, fisheries bycatch continues to be the primary threat to this DPS (Petersen *et al.* 2009; Nel *et al.* 2013; Wallace *et al.* 2013; Fossette *et al.* 2014; Angel *et al.* 2014; Nel *et al.* 2015; Harris *et al.* 2018). To minimize the impacts from longline fisheries, the FAO published guidelines for sea turtle protection, entitled Technical Consultation on Sea Turtle-Fishery Interactions (FAO 2004; Huang and Liu 2010). The UN 1995 Code of Conduct for Responsible Fisheries (FAO 2004) provides guidelines for the development and implementation of national fisheries policies, including gear modification (*e.g.,* circle hooks, fish bait, deeper sets, and reduced soak time), new technologies, and management of areas where fishery and sea turtle interactions are more severe. The guidelines stress the need for mitigation measures, data on all fisheries, fishing industry involvement, and education for fishers, observers, managers, and compliance officers (FAO 2004; Honig *et al.* 2007). These guidelines, however, are rarely enacted in full. The ICCAT has adopted a resolution for the reduction of sea turtle mortality (Resolution 03–11), encouraging States to submit data on sea turtle interactions, release sea turtles alive wherever possible, and conduct research on mitigation measures. The responsibility to implement mitigation measures remains within each nation, and many nations have not implemented such measures (Honig *et al.* 2007). South Africa, Namibia, and Angola signed the Memoranda of Understanding concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa. Though South African vessels are required to carry a dehooker and line-cutter (Honig *et al.* 2007) and has instituted an observer program (Petersen *et al.* 2009), few other at-sea conservation measures have been implemented (Honig *et al.* 2007). For Taiwanese fishing vessels operating within the range of this DPS, Taiwan has regulations to limit the number of vessels in the area and to require vessels to carry de-hookers. However, bycatch and mortality remain high (Huang and Liu 2010). Similarly, though the extent of shark nets off South African beaches has been reduced from 44 km in the early 1990s to 23 km in 2007, bycatch and mortality continue to occur (Brazier *et al.* 2012), and Nel *et al.* (2015) identify bather protection nets, together with boat strikes, as the second greatest threat to the DPS, after longline fisheries. Regarding shark nets, Brazier *et al.* (2012) concludes that bycatch is low and rates are stable, but because the leatherback population is small, a further reduction in bycatch is desirable. Because the offshore longline fishery contributes more than the shark nets to leatherback mortality, Brazier *et al.* (2012) also recommends further introduction of bycatch reduction techniques in the longline fishery. Because longline threats are proportionally large and possibly increasing, Harris *et al.* (2018) concludes that bycatch mitigation measures in this industry remain first and most important management action. Thus, existing regulations have been inadequate to meet their objectives.

Beach habitat is protected throughout a portion of the nesting range of this DPS. In South Africa, approximately 280 km of nesting beaches benefit from intensive and effective protection as part of the iSimangaliso Wetland Park, a World Heritage Site since 1999 (UN Educational, Scientific and Cultural Organization 1999; Nel *et al.* 2015). iSimangaliso includes 280 km of beaches, rocky shores, mangroves, lakes,

estuaries, and coastal waters out to three nautical miles (5 km) and 200 m depth. Regulations prevent coastal development and commercial fishing within this area. However, Harris *et al.* (2015) estimated that 66 percent of leatherback turtles nest outside of the protected monitoring area (*i.e.,* only 300 km of the 900 km nesting area is monitored and protected). In addition, leatherback turtles use coastal waters that are not protected under the marine reserve. In Mozambique, much of the nesting habitat is protected, including: The Ponto du Ouro—Kosi Bay Transfrontier Marine Conservation Area; the Maputo Special Reserve; the Bazaruto Archipelago National Park; and the Quirimbas Archipelago National Park. However, nest protection only occurs over nine percent of the Mozambique coastline (Videira *et al.* 2008; Garnier *et al.* 2012). Thus, regulations to protect the nesting habitat of the DPS have been successful. However, leatherback turtles nesting outside these areas receive no protection.

In addition, South Africa hosts several marine protected areas and has proposed to add 20 new marine protected areas to expand protection to five percent of its EEZ (*https://www.marineprotectedareas.org.za/*). Two of these were proposed in order to protect leatherback marine habitat: The 1200 km² iSimangaliso Marine Protected Area (off nesting beaches); and the 6200 km² Agulhas Front Marine Protected Area (encompassing core foraging habitat). These initiatives are likely to protect leatherback turtles within the proposed areas. However, the DPS has a large range that extends well beyond protected areas. Harris *et al.* (2018) identifies the Mozambique Channel as an additional key priority area to protect.

In South Africa, a 1963 ban on egg and turtle harvest has been effective in virtually eliminating overutilization (Hughes 1996). The current law, Regulation 58(7) of the MLRA (1998), provides full protection to sea turtles and their products. In Mozambique, national legislation includes: Diploma Legislativo 2627 (7 August 1965), Forest and Wildlife Regulation (Decree 12/2002 of 6 June 2002) and Conservation Law (Law 5/2017 of 11 May). These laws protect turtles and eggs and impose fines for poaching or possession. For example, the Forest and Wildlife regulation prohibits the killing of turtles and the possession of their eggs, with fines up to US $1,000 (Decree 12/2002 of 6 June 2002; Costa *et al.* 2007). In 2008, there were at least 13 conservation programs focusing on protection and education. Despite these efforts, illegal poaching of eggs and turtles remains prevalent in Mozambique (Fernandes *et al.* 2014) due to limited implementation and enforcement of the environmental legislation (Costa *et al.* 2007; Louro 2006; Williams *et al.* 2016; Fernandes *et al.* 2018). In Madagascar, all sea turtles are protected from exploitation by Presidential Decree (2006–400). However, fishers continue to target and consume turtles captured at sea (Ratsimbazafy 2003; Epps 2006; Humber *et al.* 2010). The effectiveness of the Malagasy law is limited due to lack of enforcement, a reluctance to manage the local, cultural fishery, and the size of the coastline (Rakotonirina and Cooke 1994; Okemwa *et al.* 2005; Humber *et al.* 2010). Thus, while regulations to prevent the harvest of turtles and eggs have been adequate in South Africa, regulatory protections in Mozambique and Madagascar are inadequate.

In summary, numerous regulatory mechanisms protect leatherback turtles, eggs, and nesting habitat throughout the range of this DPS. Though the regulatory mechanisms provide some protection to the species, many do not adequately reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. As a result, bycatch, incomplete nesting habitat protection, and poaching in Mozambique and Madagascar remain threats to the DPS. In summary, we consider the inadequacy of the regulatory mechanisms to be a threat to the SW Indian DPS.

Fisheries Bycatch

Fisheries bycatch is the primary threat to the SW Indian DPS (Wallace *et al.* 2013; Fossette *et al.* 2014; Angel *et al.* 2014; Nel *et al.* 2015; Harris *et al.* 2018). Bycatch occurs in commercial and artisanal, coastal and pelagic fisheries. Gear types include: Longline, purse seine, pelagic trawl, shrimp trawl, gillnets, and beach seines (Honig *et al.* 2007; Petersen *et al.* 2009; Nel *et al.* 2013; Nel *et al.* 2015).

Of all gear types, longline fisheries likely have the largest impact on the DPS (Petersen *et al.* 2009; Nel *et al.* 2013; Angel *et al.* 2014; Nel *et al.* 2015; Harris *et al.* 2018). Leatherback turtles are exposed to longline fisheries throughout their foraging range, including the Benguela Current in the Atlantic Ocean, the Agulhas Current in the Indian Ocean, and coastal waters off South Africa, Mozambique, and Madagascar (Honig *et al.* 2007; Peterson *et al.* 2009; Huang and Liu 2010; Harris *et al.* 2018). Flag states include: South Africa, Mozambique, Japan, and Taiwan (Honig *et al.* 2007; Peterson *et al.* 2009; Huang and Liu 2010).

Harris *et al.* (2018) found a positive, significant relationship between the longline fisheries' extent of overlap with leatherback migratory corridors and threat intensity ($F_{1,8}$ = 184.7, P <0.001, $R2$ = 0.95), which was defined as a product of the turtles utilization distribution and the normalized fishing effort. They concluded that incidental capture in longline fisheries was the most important offshore threat to leatherbacks and supports the hypothesis that longlining is suppressing growth of this DPS (Nel *et al.* 2013; Harris *et al.* 2018). Harris *et al.* (2018) calculated longline bycatch rates, around Southern Africa, to be 1,500 leatherback turtles annually. Though this estimate likely includes turtles from other DPSs (SE Atlantic and NE Indian), the authors concluded that even low absolute bycatch has a disproportionately large effect in slowing population growth rates, due to the small nesting female abundance of the SW Indian DPS (Harris *et al.* 2018). Additional reason for concern is that the threat intensity of longlining was especially high in the last 5 years of the study (ICCAT and IOTC data from 2004 to 2013), suggesting that the threat and its impacts on the DPS are increasing (Harris *et al.* 2018). Throughout the SE Atlantic and SW Indian Oceans, Harris *et al.* (2018), Wallace *et al.* (2013), deWet (2012), Thorson *et al.* (2012), and Peterson *et al.* (2009) analyze longline bycatch over a large portion of the DPS's foraging range. Wallace *et al.* (2013) categorize the longline fishing effort as medium to high and conclude that such effort leads to a high risk and high bycatch impact for the SW Indian DPS. Thorson *et al.* (2012) used data from the IOTC (1954 to 2009) and South African fishery (2006 to 2009) in a model of leatherback turtle survival and availability. Their model did not find that leatherback survival declined during the period when longline fishing effort increase. However, the authors state that their null result could be explained by an imprecise index of longline effort or using newer bycatch rates for the South African longline fishery (*i.e.,* Petersen *et al.* 2009). For example, based on fisheries data from 30 South African and Asian pelagic longline vessels operating in the South African EEZ between 2006 and 2010, De Wet (2012) estimates the mean annual bycatch to be 7.8 (±7.8 S.D.) leatherback turtles, based on 39 leatherback turtle captures reported over 5 years. Other studies estimate bycatch to be higher. Based on extrapolations from

independent observer bycatch reports from 1998 to 2005 (n = 2,256 sets), Peterson *et al.* (2009) estimates that the South African pelagic longline fishery for tunas and swordfish captures 50 leatherback turtles annually, many of which likely belong to the SW Indian DPS (the remainder belong to the SE Atlantic DPS). Though most (84 percent) were caught alive, Peterson *et al.* (2009) estimates the long-term survival of affected turtles at 50 percent (based on an estimated range of 25 to 75 percent; Aguilar *et al.* 1995). Peterson *et al.* (2009) thus estimates total mortality from the South African pelagic longline fishery to be 25 turtles annually, or around two percent of the total population (based on a total population size of 1,200 leatherback turtles), which they conclude is enough to hamper recovery of the SW Indian population. Nel *et al.* (2013) agrees with this conclusion, citing a 30 year (1965 to 1995) increasing trend in nesting female abundance that stalled as the longline fishery expanded from 1990 to 1995. Huang and Liu (2010) come to a similar conclusion. They report that the longline fishery operated at a relatively low level until 1995, when South Africa, Japan, and Taiwan started a joint venture fishing program.

In the Indian Ocean, Huang and Liu (2010) evaluated the Taiwanese longline fishery bycatch, and Louro (2006) described illegal longlining in Mozambique waters. Huang and Liu (2010) evaluated observer data from 77 trips (4,409 sets) on Taiwanese large-scale longline fishing vessels. They identified 84 leatherback turtles captured from 2004 to 2008, with 48 mortalities (57 percent; Huang and Liu 2010). Extrapolating to the entire Taiwanese longline fishery in the Indian Ocean, they estimated an average bycatch of 173 leatherback turtles between 2004 and 2007. This number likely included individuals from the SW and NE Indian DPSs. In addition to commercial longlining, artisanal longlining also occurs in the SW Indian Ocean. Illegal longlining off Mozambique targets sharks and leatherback turtles. The level of take and mortality is unknown. A program called Eyes on the Horizon reports such events, when observed (Louro 2006).

In the SE Atlantic Ocean, Honig *et al.* (2007) and Angel *et al.* (2014) evaluate longline bycatch. Honig *et al.* (2007) evaluated turtle bycatch by longline fisheries in the Benguela Large Marine Ecosystem by using data from observer reports, surveys, and specialized trips from the coastal nations of South Africa, Namibia and Angola. They estimated bycatch at 672 leatherback turtles annually (based on an annual bycatch estimate of 4,200 turtles, of which approximately 16 percent are leatherback turtles) in the southern and central regions and as many as 5,600 leatherback turtles (based on an annual bycatch estimate of 35,000 turtles) for the entire Benguela Large Marine Ecosystem (Honig *et al.* 2007). These estimates likely include many leatherback turtles from the much larger SE Atlantic DPS, but telemetry studies indicate that the turtles of the SW Indian DPS use this foraging area too (Luschi *et al.* 2006; Robinson *et al.* 2016). Evaluating ICCAT data, Angel *et al.* (2014) confirms exposure to high longline fishing effort but reports that bycatch of this population is low relative to other leatherback populations. Although Thorson *et al.* (2012) found that increased fishing effort had no explanatory power regarding changes in leatherback survival, other studies identify longline fisheries as the primary threat to the DPS (Petersen *et al.* 2009; Nel *et al.* 2013; Angel *et al.* 2014; Nel *et al.* 2015; Harris *et al.* 2018). Based on the weight of evidence, we agree with the latter and conclude that longline fisheries pose a major threat to the DPS throughout its foraging range.

Other fisheries also impact the SW Indian DPS, possibly resulting in substantial mortalities. However, these fisheries are not as well studied, and mortality estimates are not available (Honig *et al.* 2007; Nel *et al.* 2013). Leatherback turtles are caught in artisanal and commercial shrimp trawl, pelagic trawl, gillnet, purse seine, and beach seine fisheries (Honig *et al.* 2007; Petersen *et al.* 2009; Nel *et al.* 2013). Citing Walker (2005) and Rakotonirina (1994), Nel (2013) reports that the number of sea turtles (all species) caught in artisanal fisheries of the Mozambique Channel could exceed commercial fishery catches. Honig *et al.* (2007) echoes this concern for the Benguela Current Large Marine Ecosystem, citing high mortality rates for these fisheries in other regions. The Mozambican shrimp trawl fishery operates in the Sofala Bank of the Mozambique Channel, near leatherback nesting, migrating, and foraging areas (Luschi *et al.* 2006; Robinson *et al.* 2016). The fishery supports 50 to 96 vessels that employ standard otter trawl nets in a single or quad-net configuration with an average tow-time of three hours (Brito 2012). It does not employ TEDs and incidentally captures several (*i.e.,* at least two to six but possibly many more) leatherback turtles annually (Louro 2006; Videira *et al.* 2010; SWOT 2017). In 2001, one shrimp trawler captain reported capturing more than six leatherback turtles since fishing season opened; all were captured alive (Gove *et al.* 2001). Based on 39 interviews with observers, enforcement officers, and vessel operators, the fleet (n = 50) captures approximately 56 (±40) leatherback turtles; the overall estimated mortality rate for bycaught turtles is 14 percent (Brito 2012). Given the overlap between the fishery and an important foraging area, M. Pereira (CTV, pers. comm., 2019) concludes that the Mozambican shrimp trawl fishery may be one of the main threats to this DPS. The South African shrimp trawl fishery has been reduced to two vessels, with an average annual bycatch of less than one leatherback (Honig *et al.* 2007; Petersen *et al.* 2009; Nel *et al.* 2013). Domestic shrimp trawling in Eritrea is considered a major threat to sea turtles, and bycatch is underreported. However, leatherback turtles are relatively rare in these waters, as demonstrated by the foreign trawl fleet, which has 100 percent observer coverage and bycatch records indicating 39 leatherback turtles between 1996 and 2005 (Pilcher *et al.* 2006).

During a small random sampling exercise in 2013 by onboard observers from the Research Division of Eritrea, one leatherback turtle (of 48 sea turtles total) was captured and released (Mebrahtu 2015). On June 20, 2019, the European Union passed a regulation (PE–CONS 59/1/19 Rev 1) that requires shrimp trawl fisheries to use a turtle excluder device in European Union waters of the Indian and West Atlantic Oceans.

Gillnets in Macaneta, Mozambique, killed two leatherback turtles during the 2010 nesting season (Videira *et al.* 2010) and captured one in the 2003 nesting season (Louro 2006). In Madagascar, leatherback turtles are a ''common'' bycatch of the set gillnet shark fishery (Robinson and Sauer 2013); mortality is likely high given the 24-hour soak time and propensity for consuming turtle meat. Purse seine fisheries have a much lower impact than longline fisheries (Angel *et al.* 2014); two leatherback turtles were captured (alive) between 1995 and 2010 in the Indian Ocean (Clermont *et al.* 2012). In the EEZ of all Indian Ocean French Territories (mostly from the Mozambique Channel), 40 leatherback turtles were captured in unspecified fisheries from 1996 to 1999; 92 percent were released alive (Ciccione 2006).

Shark or bather nets, which are gillnets installed off beaches in South Africa to limit human-shark interactions, incidentally capture

leatherback turtles. According to Nel *et al.* (2015), bather protection nets and boat strikes together present the second greatest threat to the DPS, after fisheries. Three of nine leatherback turtles equipped with satellite tags between 1996 and 2006 were caught in shark nets (de Wet 2012). Between 1981 and 2008, 150 leatherback turtles were captured (mean = 5.36; SE = 0.60), of which 20 were mature females and 39 were mature males (Brazier *et al.* 2012). Total mortality was 62.7 percent, with an annual range of 1 to 12 mortalities (mean = 3.4; SE = 0.47; Brazier *et al.* 2012). Most turtles were captured in December, the peak month for nesting, which together with the prevalence of mature individuals, suggests that bycatch is dominated by adults from nearby nesting and breeding areas (Brazier *et al.* 2012). Analyzing these data over an additional 2 years (1981 to 2010), de Wet (2012) found that 157 leatherback turtles (mean = 5.26; SD = 2.7) were captured in the nets, with a 62.4 percent mortality rate (mean = 3.3; SD = 1.8).

To reduce bycatch mortality in longlines, South African regulations require vessels to carry a dehooker and line cutter (Honig *et al.* 2007). To reduce bycatch in the shark nets, effort was reduced from 44 km of nets in the early 1990s to 23 km in 2007 (Brazier *et al.* 2012). Despite these efforts, a previously increasing trend in nesting female abundance has stalled and ''declined recently'' (Nel *et al.* 2013).

Individuals (immature and adult turtles) of this DPS are exposed to high fishing effort throughout their foraging range. Estimates of bycatch rates, when available, range considerably. For example, Harris *et al.* (2018) estimated the annual longline bycatch rates around Southern Africa to be 1,500 leatherback turtles annually; whereas, de Wet (2012) estimated the mean annual bycatch to be 7.8 (±7.8 S.D.) leatherback turtles. We have annual mortality estimates for few individual fisheries: n = 25 for South African longline (Peterson *et al.* 2009); n = 12 for Taiwanese longline (Huang and Liu 2010); n = 1 to 12 for shark nets (Brazier *et al.* 2012). Adding in other longline fisheries and additional gear types may result in more than 100 mortalities annually. These estimates likely include individuals from other DPSs (*i.e.,* the SE Atlantic and NE Indian). However, because of the small nesting population, even small levels of mortality have the potential to slow population growth (Harris *et al.* 2018). Mortality reduces abundance, by removing individuals from the population; it also reduces productivity, when potential nesting females are killed. Several studies conclude that bycatch has prevented continued population growth and/or contributed to the recent slight decline in nesting (Petersen *et al.* 2009; Huang and Liu 2010; Brazier *et al.* 2012; Nel *et al.* 2013; Harris *et al.* 2018). We conclude that fisheries bycatch is the primary threat to the SW Indian DPS.

Vessel Strikes

Vessel strikes are a threat to the SW Indian DPS. According to Nel *et al.* (2015), vessel strikes and bather protection nets together present the second greatest threat to the DPS, after fisheries. Together these threats kill up to 10 leatherback turtles annually (Nel *et al.* 2015). One of 24 leatherback turtles stranded along the South African coastline between 1972 and 2010 was struck by a boat propeller (Nel 2008). However, additional mortalities or injuries may go unnoticed or unreported. Vessel strikes affect adult females returning to nest, removing individuals and their future reproductive potential. Thus, this threat reduces the abundance and productivity of the DPS. We conclude that vessel strikes pose a threat to the DPS.

Pollution

Pollution includes contaminants, marine debris, and ghost fishing gear. As with all leatherback turtles, entanglement in and ingestion of marine debris and plastics are threats that likely kill several individuals a year. For six stranded hatchlings and 24 stranded adults over the past 40 years, the cause of death was generally unknown. However, fishery-related injuries, ghost-fishing (*i.e.,* entanglement in discarded fishing gear), disease, or pollution may be responsible (de Wet 2012). Plastic pollution may be a main threat in the waters off Mozambique (M. Pereira, pers. comm., 2019). Outer accumulation of the Indian Ocean ''garbage patch'' (Cozar *et al.* 2014) overlaps with foraging areas in the Mozambique Channel and occurs in waters offshore from nesting areas in South Africa and Mozambique. Though we were unable to find ingestion or entanglement data for SW Indian leatherback turtles, 51.4 percent of gut and fecal samples from loggerhead turtles (n = 74) captured as bycatch in the Reunion Island longline fishery contained marine debris, of which plastic comprised 96.2 percent (Hoarau *et al.* 2014). Ryan *et al.* (2016) found that 24 of 40 loggerhead turtle post-hatchlings had ingested plastics or other anthropogenic debris. Based on the foraging behavior of leatherback turtles and the proximity of the ''garbage patch,'' we conclude that the ingestion and entanglement of marine debris are threats to this DPS.

In addition, State of the World's Sea Turtles (SWOT 2017) identifies hydrocarbon extraction along the eastern African seaboard, including northern Mozambique, as the greatest emerging concern for this DPS. They report that the impact of such activities remain to be seen (SWOT 2017). However associated oil spills are likely to modify habitat off nesting beaches and reduce prey availability for all life stages. Harris *et al.* (2018) found that the hydrocarbon industry poses a moderate threat to the DPS because of its spatial overlap with migratory corridors (second in extent, after longline fisheries). They expressed concern over the expansion of the hydrocarbon extraction along the coasts of southern Mozambique and northeastern South African and the possibility of an oil spill in these areas (Harris *et al.* 2018). Pretorius (2018) identified 28 significant impacts to sea turtles as a result of hydrocarbon exploration and production; these included: Potential water pollution, light pollution, noise pollution, and habitat destruction. However, Du Preez *et al.* (2018) reports that metal and metalloid contaminants do not appear to be a problem for this DPS. We conclude that pollution poses a threat to the DPS.

Climate Change

Climate change is a threat to the SW Indian DPS. The impacts of climate change include: Increases in temperatures (air, sand, and sea surface); sea level rise; increased coastal erosion; more frequent and intense storm events; and changes in ocean currents.

Angel *et al.* (2014) identifies coastal erosion as the main beach-based threat to this population and one that is likely to increase with climate change. Though coastal erosion is a natural process, sea level rise (as a result of climate change) increases the rate of erosion and the amount of beach affected. In Bazaruto Archipelago, Mozambique, coastal erosion and rising sea levels destroyed approximately 12 percent of nests over 10 seasons of monitoring (Videira and Louro 2005; Louro 2006). Because leatherback turtles nest lower on the beach than other sea turtles, their eggs are more at risk of being exposed and destroyed by increases in sea level and coastal erosion (Boyes *et al.* 2010). Thus, erosion and rising sea level as a result of climate change are a threat to the DPS.

Sand temperatures influence leatherbacks' egg viability and sex determination. Temperatures over 32 °C

result in death and temperatures below 29.2 °C produce only males (Rimblot *et al.* 1985; Rimblot-Baly *et al.* 1986). Temperature probes on South African beaches reveal that nests are already close to pivotal temperatures, with an average of 29.04 °C (S.D. 0.86 °C; range 27.62 to 29.69 °C; Boyes *et al.* 2010). A modeling study suggests that even if South African beaches experience a temperature increase of 5 °C, hatching success and emergence success may not be significantly reduced (Santidrián Tomillo *et al.* 2015). Instead, nesting females may shift their nesting season to months (*e.g.,* July through October) when temperature and precipitation would be similar to current conditions of the current nesting season (*i.e.,* October through January). However, the authors cautioned that because nesting females do not change their nesting habits in response to oceanographic conditions, they may not change their nesting habits in response to climate change either (Santidrián Tomillo *et al.* 2015). In addition, a shift in the nesting season could have impacts beyond hatching success, such as reduced post-hatchling survival and suboptimal foraging conditions for post-nesting females. We therefore conclude that increased temperatures may be a threat to the DPS, and will likely result in impacts ranging from nesting season shifts to significant nest losses.

The threat of climate change may modify the nesting conditions for the entire DPS. Impacts likely range from small, temporal changes in nesting season to large losses of productivity. Because we are already seeing small impacts due to coastal erosion and sea level rise, we conclude that climate change is a threat to the SW Indian DPS.

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply to the SW Indian DPS (for a description of each effort, please see the section on conservation efforts for the overall taxonomic species): African Convention on the Conservation of Nature and Natural Resources (Algiers Convention), Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention on the Conservation of European Wildlife and Natural Habitats, Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention) and Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa (Abidjan Memorandum), Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), FAO Technical Consultation on Sea Turtle-Fishery Interactions, Indian Ocean Tuna Commission, The Indian Ocean Tuna Commission, Indian Ocean—South-East Asian Marine Turtle Memorandum of Understanding, MARPOL, IUCN, Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, Ramsar Convention on Wetlands, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the SW Indian DPS is at high risk of extinction. The DPS exhibits a total index of nesting female abundance of 149 females. Such a limited nesting population size places this DPS in danger of stochastic or catastrophic events that increase its extinction risk. This DPS exhibits a slightly decreasing nest trend at monitored nesting beaches in South Africa. This declining trend has the potential to further lower abundance and thereby increase the risk of extinction. With only one nesting aggregation, the DPS lacks spatial structure, and its genetic diversity is low. Thus, stochastic events could have catastrophic effects on nesting for the entire DPS, with no potential source subpopulations to buffer losses or provide additional diversity. However, the DPS uses multiple, distant, and diverse foraging areas, providing some resilience against reduced prey availability. Based on these factors, we find the DPS to be at risk of extinction, likely as a result of past threats.

Current (ongoing) threats further contribute the risk of extinction of this DPS. The primary threat to this DPS is bycatch in commercial and artisanal, pelagic and coastal, fisheries. Longline fisheries constitute the greatest threat. Though poorly studied, other fisheries together may have overall mortality rates for affected turtles from this DPS that rival those from longline fisheries. Fisheries bycatch reduces abundance by removing individuals from the population. Because several fisheries operate near nesting beaches, productivity is also reduced when nesting females are prevented from returning to nesting beaches. Exposure and impact of this threat are high. Poaching is also a threat to the DPS. Egg and turtle poaching, while no longer a threat in South Africa, likely continues in Mozambique. In Madagascar, turtles are illegally captured at sea and consumed in local villages. Vessel strikes also pose a threat. Vessel strikes kill several leatherback turtles each year, including females returning to beaches to nest. While exposure is low, impacts are high, affecting both abundance and productivity. Coastal erosion and beach driving in Mozambique modify nesting habitat and are believed to result in minor reductions in productivity currently. However, these threats are likely to increase over time as climate change and tourism increases. Climate change is likely to result in reduced productivity due to greater rates of coastal erosion and nest inundation. Predation of eggs and hatchlings is also a threat. However, although predation has the potential to reduce productivity, the DPS has likely adapted to predation by native species, which account for most of the predation at present. Ingestion of plastics and entanglement in marine debris are threats to all leatherback turtles, most likely resulting in injury and reduced health, though sometimes mortality. Though many regulatory mechanisms are in place, they do not reduce the impact of these threats to levels that allow the DPS to continue its previous increasing nesting trend.

Thus, the Team unanimously concluded, that the SW Indian DPS is at high risk of extinction. The total index of nesting female abundance of 149 females makes the DPS highly vulnerable to threats. We determine, consistent with the team's findings, that the DPS is currently ''in danger of extinction.'' The slightly declining nest trend and lack of spatial structure and diversity further contribute to its risk of extinction. While this small population had an increasing or stable nesting trend for decades, the lack of continued population growth and recent decline may indicate that threats have outpaced productivity. Past egg and turtle harvest initially reduced the nesting female abundance of this DPS and likely confined its nesting habitat to a relatively small geographic area, with little diversity or spatial structure. Currently, fisheries bycatch is the primary present, ongoing threat. It reduces abundance and productivity (*i.e.,* imminent and substantial demographic risks) by removing mature and immature individuals from the

population at rates exceeding replacement. Though numerous conservation efforts apply to this DPS, they do not adequately reduce the risk of extinction. We conclude that the SW Indian DPS is in danger of extinction throughout its range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is at risk of extinction currently (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

NE Indian DPS

The Team defined the NE Indian DPS as leatherback turtles originating from the NE Indian Ocean, south of 71° N, east of 61.577° E, and west of 120° E. The western boundary occurs at the border between Iran and Pakistan, where the Somali Current begins. This current, and the cold waters of the Antarctic Circumpolar Current, likely restrict the nesting range of this DPS. We placed the eastern boundary at 120° E to approximate the Wallace and Huxley lines, which are established biogeographic barriers to gene flow between Indian and Pacific Ocean populations of numerous species. While the genetic differences between the NE Indian and West Pacific DPSs demonstrate discreteness, genetic sampling is unavailable from areas where the nesting range of the DPSs likely meet, preventing us from defining the boundary more specifically.

The range of the DPS (*i.e.,* all areas of documented occurrence) extends throughout the Indian Ocean and possibly into the Pacific Ocean. Records indicate that the species occurs in the waters of the following nations: India, Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia, Indonesia, Vietnam, China, and Philippines (Hamann *et al.* 2006). Given the range of the DPS, leatherbacks may also occur in the waters of Pakistan, Australia, Brunei, Cambodia, Philippines, and Taiwan.

Leatherback turtles of the NE Indian DPS nest on beaches scattered throughout the NE Indian Ocean. The largest abundance of nesting occurs on beaches of the Andaman and Nicobar Islands in India. The sandy beaches of the Andaman and Nicobar Islands consist of soft limestone formed of coral and shell (Lal 1976; Bandopadhyay and Carter 2017). A moderate amount of nesting occurs in Sri Lanka, and even less occurs in Thailand and Sumatra, Indonesia (Hamann *et al.* 2006; Nel 2015).

Information on this DPS is limited, but foraging appears to occur throughout the Indian Ocean (Andrews *et al.* 2006; Hamann *et al.* 2006). The foraging range extends throughout the Bay of Bengal, south of Sri Lanka, and along the west coast of Sumatra, Indonesia, as indicated by satellite telemetry data and fisheries reports (NMFS and FWS 2013). Nesting females at Little Andaman Island likely use a variety of foraging areas and have been tracked to: South and east of the Andaman and Nicobar Islands; along the coast of Sumatra; beyond Cocos (Keeling) Island towards Western Australia; and across the Indian Ocean towards Madagascar and the African continent (Namboothri *et al.* 2012; Swaminathan *et al.* 2017; Swaminathan *et al.* 2019). Stranding data also indicate the use of diverse foraging areas: 15 individuals stranded or were caught in fishing gear along the mainland coast of India (Shanker 2013). Leatherback turtles have also stranded along the coasts of Mindanao, Philippines and Pakistan (Firdous 2006; Lucero *et al.* 2011).

Abundance

The total index of nesting female abundance of the NE Indian DPS is 109 females. We based this total index on the nesting aggregations at South and West Bays, Little Andaman Island, India (K. Shanker pers. comm., 2018). Our total index does not include 14 unquantified nesting aggregations in Bangladesh, India, Indonesia, Malaysia, Myanmar, Sri Lanka, Thailand, Philippines, and Vietnam. To calculate the index of nesting female abundance, we divided the total number of nests at South and West Bays, Little Andaman Island between the 2015/2016 and 2017/2018 nesting seasons (*i.e.,* a 3-year remigration interval; Andrews 2002) by the clutch frequency (3.8 clutches/season; Andrews 2002; Eckert *et al.* 2015). This number represents an index of abundance for this DPS, and is likely to be an underestimate, because it only includes available data from recently and consistently monitored nesting beaches. Additional nesting occurs at other locations but is unquantified.

Published estimates of total nesting female abundance are not available for this DPS. The IUCN Red List assessment did not provide an estimate of the total number of mature individuals because monitoring was not sufficient (Tiwari *et al.* 2013). Currently, the largest nesting aggregations occur in the Andaman and Nicobar Islands of India. Nesting in Sri Lanka may consist of about 100 to 200 nesting females per year, and low levels of nesting occur in Thailand and Sumatra, Indonesia (Hamann *et al.* 2006; Nel 2012). Low and scattered nesting occurs in Indonesia: 1 to 14 nesting females annually at Alas Purwo in East Java; and one to three nesting females annually on three beaches in Bali. There are also rare reports of nesting in the Philippines (Lucero *et al.* 2011; Arguelles 2013), Vietnam, and Malaysia. In Myanmar, nesting is rare, and only one confirmed nesting event has been recorded in recent years (*i.e.,* December 2016; Platt *et al.* 2017). Historically, there may have been nesting in Bangladesh, but no current reports exist (Hamann *et al.* 2006).

Malaysia once hosted the DPS's largest nesting aggregation (Chan and Liew 1996). It is now considered functionally extinct or extirpated (Pilcher *et al.* 2013), as a result of continuous, large-scale egg harvest and fisheries bycatch (Chan and Liew 1996; Eckert *et al.* 2012). The major nesting site in Malaysia, Rantau Bang in Terengganu, decreased drastically from 10,000 nests in the 1950s to 10 or fewer nests in the 2010s (reviewed by Eckert *et al.* 2012), and to one or no nests annually, more recently. The number of nesting females in Vietnam has also decreased dramatically, from approximately 500 nesting females in the 1960s to two to three nests in 2005 and 2007 (The Chu and Nguyen 2015). In the late 1970s, females nested in multiple locations of Thailand, including: along the airport beach in Changwat Phuket; in the Laem Phan Wa marine reserve; and in coastal Changwan Phangnga (Bain and Humphry 1980). Settle (1995) recorded about 30 nests on the Phuket and Phangnga coastlines from 1992 to 1993. Aureggi *et al.* (1999) found nine nests between 1997 and 1998, during a survey of Phra Thong Island in the south.

Our total index of nesting female abundance (109 females) places the DPS at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). These processes, working alone or in concert, place small populations at a greater extinction risk than large populations, which are better able to absorb losses in individuals. Due to its small size, the DPS has restricted capacity to buffer such losses. Historic abundance estimates indicate that the DPS was once much larger. The current abundance is likely a result of past and current threats, which we describe below. Given the intrinsic problems of small population size, we conclude that the limited nesting female abundance is a major factor in the extinction risk of this DPS.

Productivity

The NE Indian DPS has exhibited a drastic population decline with extirpation of its largest nesting aggregation in Malaysia. Nest counts from Malaysia exhibited a steep decline of 17.9 percent annually (sd = 4.2 percent; 95 percent CI = −25.5 to −8.4 percent; f = 0.998; mean annual nests = 1,166) over the 44-year period of data collection (1967 to 2010). The drastic decline of nests observed in Malaysia is likely representative of the overall trend for the DPS given the magnitude of historical abundance for that site and the high confidence in the trend estimate.

Despite the dramatic population decline, driven by the extirpation of the largest nesting aggregation (*i.e.,* Malaysia), productivity parameters are similar to the species averages. However, we have a low degree of confidence in these estimates due to limited monitoring of existing nesting aggregations. We conclude that the NE Indian DPS exhibits a declining nesting trend, which increases its extinction risk.

Spatial Distribution

For the NE Indian DPS, nesting is limited to a few, scattered nesting beaches. Currently, the majority of the nesting occurs on beaches of the Andaman and Nicobar Islands and Sri Lanka, with small numbers of nests on the western coast of Thailand, Sumatra, and Java (Nel *et al.* 2015).

Spatial structure is unknown but presumed to be low. There are no estimates of genetic population structure within this DPS because published genotypes only exist for Malaysia (Dutton *et al.* 1999, 2007). Genetic samples were taken from nesting females at Little Andaman Island from 2008 through 2010, but the results are not yet available (Namboothri *et al.* 2010).

The wide distribution of foraging areas likely buffers the DPS somewhat against local catastrophes or environmental changes that would limit prey availability. Remaining nesting is limited to a few, scattered but broadly distributed nesting sites. The largest nesting aggregations are clustered, thus rendering the DPS susceptible to environmental catastrophes (*e.g.,* tsunamis), and directional changes (*e.g.,* sea level rise). Thus, despite widely distributed foraging areas, the somewhat limited nesting distribution increases the extinction risk of the NE Indian DPS.

Diversity

Genetic diversity of the NE Indian DPS is potentially relatively high, based on analyses of samples collected from the previously large, but now functionally extinct, nesting aggregation in Malaysia (Dutton *et al.* 1999, 2007); genetic diversity has not been assessed at other nesting sites. The diversity of nesting sites is low, given that the majority of the nesting currently occurs on islands (Sivasundar and Prasad 1996). We conclude that existing diversity provides little resilience to the DPS.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

Erosion, coastal development, and artificial lighting have destroyed or modified the available, suitable nesting habitat and thus are threats to the NE Indian DPS.

Erosion reduces the available nesting habitat for the DPS. Some erosion occurs as a result of natural disasters. In 2004, a major earthquake occurred off the west coast of Sumatra, Indonesia, resulting in the 2004 tsunami, which destroyed many of the beaches that once hosted over 1,000 nests (Subramaniam *et al.* 2009). As a result of the tsunami, the width of the coastline was reduced by one meter, severely modifying the beaches of South Bay, Little Andaman Island, and resulting in very low leatherback nesting in 2005 and 2006 (Namboothri 2010). The tsunami also caused drastic changes at other leatherback nesting beaches (Alfred *et al.* 2005; Ramachandran *et al.* 2005; Murugan 2005; Andrews *et al.* 2006). It caused erosion at some beaches and accretion at others, especially in the Andaman and Nicobar Islands, which lie closest to the epi-center of the earthquake and host the largest numbers of nesting females in the DPS (Subramaniam *et al.* 2009). In addition, the beaches in Indonesia are being lost due to erosion from high tides and monsoons (Obermeier 2002).

Sand mining and tourism-related development are the main threats to nesting habitat (Fatima *et al.* 2011). While we were unable to find specific information regarding sand mining, coastal development is increasing in Sri Lanka, India, and Bangladesh. The beaches of Sri Lanka are under high threat from tourism development (*e.g.,* large hotels and restaurants), urban and industrial development, and artificial lighting (Kapurisinghe 2006). Along the mainland of India, granite blocks and embankments prevent turtles from approaching many beaches (Andrews *et al.* 2006). Intense coastal development, stemming from the tourism industry, occurs in Bangladesh without environmental review (Pilcher 2006), resulting in the alteration of sand dunes and other activities that reduce the quality of nesting habitat (Islam 2002; Islam *et al.* 2011). In Vietnam, increasing tourism is expected to result in coastal development on the beaches of Son Tra Peninsula, QuanLan, and Minh Chau (Ministry of Fisheries 2003). In addition, most Vietnam beaches are affected by a large amount of marine debris (*e.g.,* glass, plastics, polystyrenes, floats, nets, and light bulbs), which can entrap turtles and impede nesting activity.

Artificial lighting modifies the quality of nesting beaches because lights over land disorient nesting females and hatchlings. Instead of crawling toward the surf and their marine habitat, they crawl further inland, where they may become dehydrated and die or are susceptible to predation. Nests moved to hatcheries as part of conservation efforts may be subject to inadequate hatchery practices, which have resulted in skewed sex ratios and low hatching success (Chan and Liew 1996; Kapurisinghe 2006; Rajakaruna *et al.* 2013; Phillott *et al.* 2018).

Some areas are protected. Of the 306 islands in the Andaman and Nicobar Islands of India, 94 are designated as wildlife sanctuaries, six of which are national parks, and two of which are marine national parks (Andrews *et al.* 2006). In Sri Lanka, in 2006, sea turtle sanctuaries were established at Rekawa (4.5 km stretch) and Godawaya (3.8 km stretch), where high frequency leatherback nesting is observed; the area is bounded 500 meters towards the sea and 100 meters towards the land from the high tide level in both sites (Phillott *et al.* 2018). Although laws protect sea turtles throughout Sri Lanka, most nesting areas are not protected and hence, local communities can disturb nesting beaches by removing sand, lighting the beaches, and cutting the beach vegetation (Phillott *et al.* 2018). In Malaysia, turtle sanctuaries have been established in Terengganu, Sabah, and Sarawak. However, nesting habitat modification and destruction continue in many areas.

We conclude that nesting females, hatchlings, and eggs are exposed to the reduction and modification of nesting habitat, as a result of erosion, coastal development, and artificial lighting. These threats impact the DPS by reducing nesting and hatching success, thus lowering its productivity. The most abundant remaining nesting aggregations are protected from

development, but they experience high rates of erosion; other nesting beaches are subject to anthropogenic threats. Thus, we conclude that habitat loss and modification pose a threat to the NE Indian DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is a threat to the NE Indian DPS. The harvest of turtles and eggs led to the historical decline of the DPS, and poaching continues in several areas (Phillott *et al.* 2018).

Regular, nearly complete egg harvest caused the functional extinction of the once large nesting aggregation in Malaysia (Chan and Liew 1996). In the early 1960s, the Terengganu, Malaysia nesting beaches were leased to the highest bidder, and nearly all leatherback eggs were harvested. In the 1980s, the State Fisheries Department tried to buy back about 10 percent of the harvested eggs to be incubated in a hatchery (Siow and Moll 1982; Chan and Liew 1996; Stiles 2009). However, such efforts could not prevent the extirpation. Excessive egg harvest, both legal and illegal, also caused declines in India, Sri Lanka, and Thailand (Ross 1982).

The harvest of turtles and eggs continues but has not been quantified (Nel 2012). In Sri Lanka, almost all eggs are taken from the beach and sold at markets or to hatcheries for ecotourism (Kapurusinghe 2000, 2006; Rajakaruna *et al.* 2013; Phillott *et al.* 2018). The conservation benefit provided by hatcheries in Sri Lanka is debatable (Phillott *et al.* 2018) because they do not follow the hatchery practices established by the IUCN (Hewavisenthi 1994; IUCN 2005; Namboothri *et al.* 2012; Rajakaruna *et al.* 2013; Phillott *et al.* 2018). Egg harvest also continues in Thailand. Commercial egg harvest is illegal in the Andaman and Nicobar Islands, and in the Andaman Islands, a ban on hunting and harvesting of turtles came into force in 1977. However, the original inhabitants of the Andaman and Nicobar Islands are exempt from the Indian Wildlife Protection Act (Shanker and Andrews 2004), and Namboothri *et al.* (2012) observed intense egg harvest at Delgarno, Trilby, and East Turtle Islands. In Myanmar, despite regulations prohibiting the consumption of turtle meat and eggs (Hamann *et al.* 2006), there is illegal trade of turtles caught at sea, including leatherback turtles (Murugan 2007). In Sri Lanka, the historically high direct take of turtles at sea has been reduced (Kapurushinghe 2006). Records indicate that turtle meat and parts were once regularly exported from Tamil Nadu, India, to Sri Lanka, and then to other nations such as the United States, Singapore, and Belgium (Kuriyan 1950; Chari 1964; Shanmughasundarun 1968 as cited in Agastheesapillai and Thiagarajan 1979).

Exposure to egg and turtle poaching remains high throughout the range of the DPS. Poaching of nesting females or post-nesting females at sea reduces both abundance (through loss of nesting females) and productivity (through loss of reproductive potential). Such impacts are high because they directly remove the most productive individuals from the DPS, reducing current and future reproductive potential. Egg harvest reduces productivity only, but, as previously demonstrated within this DPS, can have devastating population-level impacts. We conclude that overutilization, as a result of egg and turtle harvest, poses a major threat to the NE Indian DPS.

Disease or Predation

While we could not find any information on disease for this DPS, the best available data indicate that predation is a threat to the NE Indian DPS. Multiple predators prey on eggs and hatchlings at several nesting beaches (Andrews 2000). During a 2016 survey of the Nicobar Islands, approximately 57 percent (n = 1,223) of leatherback nests were lost to depredation by feral dogs, water monitor lizards, or feral pigs (*Sus domesticus;* Swaminathan *et al.* 2017). In the South Bay of Great Nicobar Island, wild boars and dogs prey on eggs, while fiddler crabs, dogs, and raptors prey on hatchlings (Sivakumar 2002). Sivasundar and Prasad (1996) documented that Asian water monitor lizards took 68.6 percent of leatherback nests in the Andaman Islands. In Sri Lanka, egg predators include feral dogs, water and land monitor lizards, jackals, wild boars, mongooses, and ants. Egg predation by feral pigs is a major threat in Indonesia (Maturbongs *et al.* 1993; Maturbongs 1995, 1996; Sivasundar and Prasad 1996).

A large number of eggs and hatchlings are exposed to predation. Though leatherback turtles produce a large number of eggs and hatchlings, published rates of predation (57 to 69 percent) are high. The predation of eggs and hatchlings mainly impacts productivity. We conclude that predation poses a threat to the NE Indian DPS.

Inadequacy of Existing Regulatory Mechanisms

Turtles of the NE Indian DPS are protected by several regulatory mechanisms. For each, we review the objectives of the regulation and to what extent it adequately addresses the targeted threat. Nearly all nations that host nesting aggregations have legislation to protect sea turtles.

In India, the leatherback turtle is included on Schedule I, Part II of the Wildlife (Protection) Act, 1972 (Entry No. 11) updated by Wild Life (Protection) Amendment Act, 2002 (No. 16 of 2003). India also bans the hunting and trade of wild animals (India National Report to CMS, 1991 and 1994). However, the indigenous people of the Andaman and Nicobar Islands are exempt from these laws. India has regulations to require TEDs and minimize fisheries interactions; and much of the Andaman and Nicobar Islands are protected as wildlife sanctuaries, including two marine national parks (Andrews *et al.* 2006).

In Indonesia, Order No. 301/1991 lists leatherback turtles as a protected species. Pursuant to the Act of 10 August 1990 on the Conservation of Living Resources and Their Ecosystems, it is prohibited to kill, capture, possess, transport, trade in or export protected animals whether alive or dead, or parts of such animals. The taking, destruction, trade or possession of the eggs or nests of protected animals are also prohibited (ECOLEX 2003). There are no habitat protections and no regulations to minimize fisheries interactions or require TEDs in Indonesia.

In Sabah, Malaysia, the leatherback turtle is not listed as a totally protected or partially protected species in the Wildlife Conservation Enactment (No. 6 of 1997). In Sarawak, Malaysia, leatherback turtles have been fully protected since 1958. Under the Wildlife Protection Ordinance 1998, all marine turtles in Malaysia are protected from hunting, killing, capture, sale, import, export, possession of any animal, recognizable part or derivative or any nest, except in accordance with the permission in writing of the Controller of Wildlife for scientific or educational purposes or for the protection or conservation of a species (Tisen and Bali 2002). The nesting beach at Rantau Abang, Terengganu is protected. However, the nesting aggregation that once used this beach has been extirpated. In 1994, the waters surrounding 38 offshore islands of Peninsular Malaysia and Labuan became protected as marine parks. In

addition, one national park in Sarawak, three in Sabah, and one state park in Terengganu protect coastal and marine ecosystems (Malaysia National Biodiversity Policy 1998). Additional habitat protections include: The Turtle Trust Ordinance 1957; Land Code 1958; Turtle Protection Rules 1962; Fisheries Prohibited Areas under section 61 of the Fisheries Act 1985; and the Wildlife Protection Ordinance 1998 (Tisen and Bali 2002). The use of TEDs will be required in Malaysia by 2020.

In Myanmar, the Burma Wildlife Protection Act 1936 (Act No. VII of 1936) requires licenses to hunt, possess, sell, or buy wild animals with closed hunting seasons (FAOLEX 2003). The Burma Wildlife Protection Rules of 1941 states that the import or export of any reptile (including parts or products) into or from Myanmar is prohibited.

In Pakistan, the leatherback turtle is protected in Baluchistan, Azad Kashmir and Sind (Baluchistan Wildlife Protection Act 1974 No.19/1974; The Azad Jammu and Kashmir Wildlife Act 1975 No.23/1975; The Sindh Wildlife Protection Ordinance 1972 No.5/1972). Possession, transport, and/or national trade are prohibited or regulated (ECOLEX 2003).

In Sri Lanka, the leatherback turtle is protected under the Fauna and Flora Protection Ordinance (Sri Lanka National Report to CMS 1994), which makes it an offense to kill, wound, harm or take a turtle, or to use a noose, net, trap, explosive or any other device for those purposes, to keep in possession a turtle (dead or alive) or any part of a turtle, to sell or expose for sale a turtle or part of a turtle, or to destroy or take turtle eggs. The minister of Fisheries and Aquatic Resources may also prohibit or regulate the import and export of turtles or their derivatives (Parliament of the Democratic Socialist Republic of Sri Lanka 1993). The nesting beach in Yala Reserve is also protected.

In Thailand, the Leatherback Turtle is protected under the Animals Protection Act B.D 2535 (The Zoological Park Organization 2003).

In summary, numerous regulatory mechanisms protect leatherback turtles, their eggs, and nesting habitat throughout the range of this DPS. Although these regulatory mechanisms provide some protection, many do not adequately reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. As a result, bycatch, nesting habitat protection, and legal and illegal harvest remain threats to the DPS. We conclude that the inadequacy of the regulatory mechanisms is a threat to the NE Indian DPS.

Fisheries Bycatch

Fisheries bycatch is a threat to the NE Indian DPS. Capture in gillnet, trawl, purse seine, and longline fisheries is a significant cause of leatherback mortality for this DPS (Wright and Mohanty 2002; Hamann *et al.* 2006; Project GloBAL 2007; Bourjea *et al.* 2008; Abdulqader 2010; Wallace *et al.* 2010).

Gillnet fisheries pose a major threat to the DPS. A survey conducted at 16 main fishing ports in Sri Lanka estimated that 431 leatherback turtles were caught in gillnets between 1999 and 2000 (Kapurusinghe and Cooray 2002). In Malaysia, Chan *et al.* (1988) reported an average of 742 and 422 sea turtles, most of which were leatherback turtles, caught in drift gillnets and bottom longlines, respectively. In Bangladesh, gillnets, set bag nets, trawl nets, seine nets, hook and line and other net types of gear capture turtles (Hossain and Hoq 2010). Gillnet and purse seine fisheries are common off the coasts of the Andaman and Nicobar Islands, where the largest nesting aggregations occur (Shanker and Pilcher 2003; Chandi *et al.* 2012).

Trawl fisheries also pose a large threat to the DPS. In India, TEDs are required for trawl nets. However, fishers are reluctant to use them (Murugan 2007). Trawl fishing is also common in Bangladesh, and the use of TEDs is not required (Ahmed *et al.* 2006).

Longline fisheries occur in coastal and pelagic waters. Huang and Liu (2010) evaluated observer data from 77 trips (4,409 sets) on Taiwanese large-scale longline fishing vessels in the Indian Ocean. They identified 84 leatherback turtles captured from 2004 to 2008, with 48 mortalities (57 percent; Huang and Liu 2010). Extrapolating to the entire Taiwanese longline fishery in the Indian Ocean, they estimated an average bycatch of 173 leatherback turtles between 2004 and 2007. This number likely includes individuals from both the SW and NE Indian DPSs (Louro 2006). In Vietnam, longline fisheries continue to capture leatherback turtles. However, a circle hook program has been implemented to minimize the impact (WWF 2013).

Purse seine fisheries have a much lower impact than longline fisheries (Angel *et al.* 2014); two leatherback turtles were captured (alive) between 1995 and 2010 in the Indian Ocean (Clermont *et al.* 2012). In the EEZ of all Indian Ocean French Territories (mostly from the Mozambique Channel), 40 leatherback turtles were captured in unspecified fisheries from 1996 to 1999; 92 percent were released alive (Ciccione 2006).

In Thailand, one of the main causes of decline in the turtle population is bycatch in trawl, drift gillnet, and purse seine fisheries. The rapid expansion of fishing operations is largely responsible for the increase in adult turtle mortality due to bycatch (Settle 1995).

In Malaysia, the Fisheries Act of 1985 prohibited capture of sea turtles by any type of fishery. However, this merely reduced the reporting of interactions (Yeo *et al.* 2011 in Dutton *et al.* 2011). The 1991 Regulations prohibit fishing in waters adjacent to Rantau Abang during the leatherback nesting season (Chan 1993).

We conclude that juveniles and adults are exposed to high fishing effort throughout their foraging range and in coastal waters near nesting beaches. Mortality rates are likely high, especially in areas where turtle meat is consumed. Mortality reduces abundance, by removing individuals from the population. It also reduces productivity, when nesting females are incidentally captured and killed. We conclude that fisheries bycatch is a major threat to the NE Indian DPS.

Pollution

Pollution includes contaminants, marine debris, and ghost fishing gear. Ghost fishing gear can drift in the ocean and fish unattended for decades and kill numerous individuals (Wilcox *et al.* 2013). The main sources of ghost fishing gear are gillnet, purse seine, and trawl fisheries (Stelfox *et al.* 2016). In one collection event, volunteers collected over 600 nets, ropes, and buoys from India, Maldives, Oman, Pakistan, Sri Lanka, and Thailand (Stelfox *et al.* 2016). Though educational programs created in 2014 focus on reusing and recycling fishing gear, the threat continues throughout the range of the DPS. Ghost nets in the Maldives primarily drift from fisheries in the Bay of Bengal (*e.g.,* Sri Lanka and India; Stelfox *et al.* 2016). Around the Andaman and Nicobar Islands and Sri Lanka, plastics and other garbage are washed from polluted beaches and inland waters to the sea, where they can kill or harm sea turtles through ingestion or entanglement (Kapurusinghe 2006; Das *et al.* 2016). Pollution has been identified as a main threat to sea turtles in Iran (Mobaraki 2007) and Pakistan (Firdous 2001). However, no specific information about the type of pollution was provided. In Gujarat, India, increased port and shipping traffic have resulted in oil spills and the release of other

pollutants, such as fertilizers and cement (Sunderraj *et al.* 2006). Heavy metals and *E. coli* were found at relatively high levels in the waters of Malaysia (including Terengganu) and in the pancreases and livers of leatherback turtles (Caurant *et al.* 1999; Ngah *et al.* 2012). It is not known how these pollutants affect leatherback physiology (Jakimska *et al.* 2011).

As with all leatherback turtles, entanglement in and ingestion of marine debris and plastics are threats that likely kill several individuals a year. However, data specific to this DPS were not available. We conclude that pollution is a threat to the NE Indian DPS, albeit with effects that are unquantifiable on the basis of the best available information.

Climate Change

Climate change is a threat to the NE Indian DPS. A significant rise in sea level would further reduce nesting habitat, which is already affected by erosion. The DPS is also likely to be affected by increases in sand temperatures (Hawkes *et al.* 2009; Poloczanska *et al.* 2009). Sand temperatures prevailing during the middle third of the incubation period determine the sex of hatchling sea turtles (Mrosovsky and Yntema 1980). Incubation temperatures near the upper end of the tolerable range produce only female hatchlings, while incubation temperatures near the lower end of the tolerable range produce only males. As temperatures increase, incubation temperatures may exceed the thermal tolerance for embryonic development, thus increasing embryo and hatchling mortality.

In addition, the frequency and intensity of severe storm events and cyclones in the Bay of Bengal are predicted to increase with climate change (Balaguru *et al.* 2014).

Climate change is likely to modify nesting conditions for the entire DPS. Impacts likely range from small changes in nesting metrics to large losses of productivity. As the DPS is already experiencing nesting habitat loss due to coastal erosion, we conclude that climate change is a threat to the NE Indian DPS.

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply to the NE Indian DPS (for a description of each effort, please see the section on conservation efforts for the overall species): Association of Southeast Asian Nations Ministers on Agriculture and Forestry, Andaman and Nicobar Island Environmental Team, The Centre for Herpetology/Madras Crocodile Bank Trust, Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), FAO Technical Consultation on Sea Turtle-Fishery Interactions, The Indian Ocean Tuna Commission, Indian Ocean—South-East Asian Marine Turtle Memorandum of Understanding, MARPOL, IUCN, Memorandum of Agreement between the Government of the Republic of the Philippines and the Government of Malaysia on the Establishment of the Turtle Island Heritage Protected Area, Memorandum of Understanding on Association of South East Asian Nations Sea Turtle Conservation and Protection, The Memorandum of Understanding of a Tri-National Partnership between the Government of the Republic of Indonesia, the Independent State of Papua New Guinea and the Government of Solomon Islands, National Sea Turtle Conservation Project in India, Ramsar Convention on Wetlands, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the NE Indian DPS is at high risk of extinction. The once large nesting aggregation in Malaysia is now functionally extirpated. The total index of nesting female abundance is 109 females at all monitored beaches. This estimate is likely low because several nesting sites were not included in the calculation due to lack of consistent, standardized monitoring over multiple and entire nesting seasons. Still, the low nesting female abundance places this DPS at risk of stochastic or catastrophic events that increase its extinction risk. The DPS once exhibited much greater nesting female abundance, which has dramatically declined in recent decades. It currently exhibits a slightly declining nest trend at monitored nesting beaches in India. The DPS exhibits average productivity metrics, such as body size, clutch size and frequency. Though it exhibits some spatial distribution and diversity, with multiple foraging sites and relatively high genetic diversity at the sampled locations, nesting only occurs on islands. Based on these factors, we find the DPS to be at risk of extinction as a result of past threats.

Current threats further contribute to the risk of extinction of this DPS. Major threats to the DPS include fisheries bycatch and the harvest of turtles and eggs. There are not many nests to exploit, but evidence suggests that if such nests are found by humans, the eggs are at risk of being harvested. Egg harvest led to the extirpation of the largest nesting aggregation (*i.e.,* Malaysia), and current overexploitation occurs in Thailand, Vietnam, and Sri Lanka. The poaching of turtles is also a threat in Myanmar. Fisheries bycatch is a major threat, with turtles being captured in trawl and gillnet fisheries in Malaysia, India, Thailand, Sri Lanka, Bangladesh, and Indonesia. Erosion on the Andaman and Nicobar Islands, as a result of tsunami damage, has significantly reduced available nesting habitat. Additional habitat modifications include coastal development and artificial lighting, as a result of increases in tourism. Pollution and climate change are threats that likely affect the DPS by reducing abundance and productivity, though the best available data do not allow for quantification of those effects. Though many regulatory mechanisms are in place, they do not reduce the impact of threats to levels that ensure the continued existence of the DPS.

We conclude, consistent with the team's findings, that the NE Indian DPS is currently in danger of extinction. Its low nesting female abundance makes the DPS highly vulnerable to threats. Dramatic declines in over the past several decades contribute to our concern over the continued persistence of the DPS. Past egg and turtle harvest initially reduced the nesting female abundance of this DPS and likely confined its nesting habitat to a few island beaches, with little diversity and reduced spatial distribution. The present, ongoing threats include: overutilization (*i.e.,* turtle and egg harvest); fisheries bycatch; loss of habitat; and predation. Overutilization and fisheries bycatch reduces abundance and productivity (*i.e.,* imminent and substantial demographic risks) by removing mature and immature individuals from the population at rates exceeding replacement. The loss of nesting habitat and predation (of eggs) reduces productivity and the DPS's ability to recover to its previous abundance. Though numerous conservation efforts apply to this DPS, they do not adequately reduce the risk of extinction. We conclude that the NE Indian DPS is in danger of extinction throughout its

range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is at risk of extinction currently (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

West Pacific DPS

The Team defined the West Pacific DPS as leatherback turtles originating from the West Pacific Ocean, south of 71° N, north of 47° S, east of 120° E, and west of 117.124° W. The northern and southern boundaries reflect the highest latitude occurrences of leatherback turtles in each hemisphere (Goff and Lien 1988; Carriol and Vader 2002; McMahon and Hayes 2006; Shillinger *et al.* 2008; Benson *et al.* 2011; Eckert *et al.* 2012). We placed the western boundary at 120° E to approximate the Wallace and Huxley lines, which are established biogeographic barriers to gene flow between Indian and Pacific Ocean populations of numerous species. While the genetic differences between the Northeast Indian and West Pacific DPSs demonstrate discreteness, genetic sampling is unavailable from areas where the nesting ranges of the DPSs likely meet, preventing us from defining the boundary more specifically. We placed the eastern boundary at the border between the United States and Mexico to reflect the DPS's wide foraging range throughout the Pacific Ocean. We chose this border because the West Pacific DPS crosses the ocean to forage in the eastern Pacific Ocean, including in waters of the United States, whereas the East Pacific DPS forages primarily off the coasts of Central and South America. The two DPSs overlap in foraging habitats off waters of Chile and Peru (Donoso and Dutton 2010).

The range of the DPS (*i.e.,* all areas of occurrence) extends throughout the Pacific Ocean with specific coastal and pelagic areas in the Indo-Pacific basin providing important foraging and migratory habitats. Documented nesting occurs on beaches of the following nations: Indonesia, Papua New Guinea, Solomon Islands, and Vanuatu. Leatherback turtles of the West Pacific DPS migrate through the EEZs of at least 32 nations including in the U.S. EEZs of California and Hawaii, spending between 45 and 78 percent of the year on the high seas (Harrison *et al.* 2018). Of the 32 nations, the West Pacific DPS migrates through at least 18 nations or territories of the western and southwestern Pacific Ocean: Indonesia, Papua New Guinea, Solomon Islands, Philippines, Malaysia, Vietnam, Japan, Palau, Micronesia, Marshall Islands, Northern Mariana Islands and Guam, Fiji, Vanuatu, Australia, New Caledonia, New Zealand, Line Islands, and Kiribati (Harrison *et al.* 2018). Foraging occurs in seven ecoregions: South China/Sulu and Sulawesi Seas, Indonesian Seas, East Australian Current Extension, Tasman Front, Kuroshio Extension of the Central North Pacific, equatorial Eastern Pacific, and California Current Extension (Benson *et al.* 2011). Individuals demonstrate fidelity to these foraging areas, likely as a result of their post-hatchling dispersal patterns and nesting season (Benson *et al.* 2011; Gaspar *et al.* 2012; Gaspar and Lalire 2017; Harrison *et al.* 2018).

Leatherback turtles of the West Pacific DPS nest in tropical and subtropical latitudes primarily in Indonesia, Papua New Guinea, and Solomon Islands, and a lesser extent in Vanuatu (Dutton *et al.* 2007; Benson *et al.* 2007a; Benson *et al.* 2007b; Benson *et al.* 2011). The majority of nesting occurs along the north coast of the Bird's Head Peninsula, Papua Barat, Indonesia at Jamursba-Medi and Wermon Beaches (Dutton *et al.* 2007). A recent discovery of a previously undocumented nesting area on Buru Island, Maluku Province, Indonesia (WWF 2018) suggests that additional undocumented nesting habitats may exist on other remote or infrequently surveyed islands of the western Pacific Ocean. This DPS nests year round, and exhibits a bimodal nesting strategy whereby a proportion of females nest during November through February (*i.e.,* ''winter'' nesting females) and other females nest May through September (*i.e.,* ''summer'' nesting females; Benson *et al.* 2007a; Benson *et al.* 2007b; Dutton *et al.* 2007; Tapilatu and Tiwari 2007; Benson *et al.* 2011).

Nesting beach habitats throughout the West Pacific are generally dynamic, high profile beaches associated with deep water approaches and strong waves. Beaches can be quite narrow as in parts of the Solomon Islands or Papua New Guinea, or broad as in the case of Jamursba-Medi, Indonesia during the summer months. Nesting females appear to prefer coarse-grained sand free of rocks, coral, or other abrasive substrates (reviewed by Eckert *et al.* 2012).

While West Pacific leatherback turtles do not have distinct ''migratory corridors,'' several areas are considered ''areas of passage'' used by turtles traveling between nesting and foraging locations, and there is clear separation of migratory and foraging destinations based on nesting season (Benson *et al.* 2007a, b; Benson *et al.* 2011; Harrison *et al.* 2018). Post-nesting, winter nesting females from Papua New Guinea, Indonesia, and Solomon Islands migrate through the Halmahera, Bismarck, Solomon, and Coral Seas, towards Southern Hemisphere temperate and tropical foraging areas in the Tasman Sea, East Australian Current, and western South Pacific Ocean (Benson *et al.* 2011; Harrison *et al.* 2018; Jino *et al.* 2018). Genetic analyses of leatherback turtles caught in fisheries off Peru and Chile indicates that approximately 15 percent of sampled individuals originate from the West Pacific DPS, likely winter nesting females that have migrated across the Southern Hemisphere to the productive waters off South America (Donoso and Dutton 2010; NMFS unpublished data 2018). It is unclear what proportion of the West Pacific DPS might utilize this area and how important it might be to this DPS.

Leatherback turtles migrate through and forage in the waters of the Philippines (Benson *et al.* 2007a, 2011; MRF 2010, 2014). In 2005, Salinas *et al.* (2009) found a female in San Fernando (close to El Nido) that had been previously tagged at Jamursba-Medi in July 2003. The Marine Research Foundation (MRF) utilized aerial transects to assess leatherback foraging area use in Palawan waters and off the coast of Borneo (MRF 2010, 2014). They found leatherback turtles (n = 28 in 2010 and 2013/2014) foraging in nearshore waters around the NE and SE coasts of Palawan, potentially linked to large jellyfish aggregations from February to May, and overlapping with high density fishing activity in Taytay Bay, off NE Palawan (MRF 2010, 2014). Additionally, numerous leatherback turtle marine sightings, strandings, and fishery bycatch (typically entangled in gillnet gear) exist for locations throughout the Philippines including Marine Wildlife Watch of the local NGO, Marine Wildlife Watch of the Philippines, from 2010 to 2018 (Bagarinao 2011; Cruz 2006; MRF 2010; MWWP unpublished data 2018).

Abundance

The total index of nesting female abundance of the West Pacific DPS is 1,277 females. We based this total index on two nesting aggregations in Jamursba-Medi and Wermon, Indonesia (Tapilatu *et al.* 2013; Tiwari *et al.* in prep). Our total index does not include 18 unquantified nesting aggregations in Indonesia, Papua New Guinea, Solomon Islands, and Vanuatu. To calculate the index of nesting female abundance (723 females) for Jamursba-Medi (*i.e.,* a 18 km stretch of beach that has been monitored since 1981), we divided the total number of nests between the 2015/2016 and 2017/2018 nesting seasons (*i.e.,* a 3-year remigration interval) by the clutch frequency (5.5 clutches per

season; Tapilatu *et al.* 2013). We performed a similar analysis for data from Wermon (index = 554 females), a 6 km beach that has been monitored since 2002.

Based on the Tapilatu *et al.* (2013) study, the IUCN Red List assessment estimated the total number of mature individuals (including females and males) utilizing Jamursba-Medi and Wermon beaches to be 1,438 leatherback turtles (Tiwari *et al.* 2013). The IUCN estimate includes males and thus is higher than ours. Curtis *et al.* (2015) provided a minimum annual nesting female estimate of 318 females (or 954 total nesting female abundance over a 3-year remigration interval). Dutton *et al.* (2007) estimated that 1,113 females may have nested annually, or conservatively 2,700 total nesting females, in the entire western Pacific population. At that time, they estimated 75 percent of the population originated from Bird's Head Peninsula (or approximately 2,025 females; Dutton *et al.* 2007). Our total index is within the range of published estimates of abundance for this DPS, taking into account differences in survey methods over time, and is based on the best available data for the DPS at this time.

Within the nesting range of this DPS, nest monitoring activities have occurred relatively recently, with standardized methods in Papua Barat first implemented in 2002 (Hitipeuw *et al.* 2007; Tapilatu *et al.* 2013). Outside the Bird's Head Peninsula, monitoring has been sporadic, opportunistic, and spatially limited because the region is vast, remote, and logistically challenging to access. Often nesting beaches are located far from towns or cities, where there are no roads to, or electricity in, adjacent villages. Cultural and socio-economic dynamics confound monitoring programs, which are dependent upon fiscal sponsorship, incentives, community buy-in, and the degree of familiarity of local communities with concepts of sustainability or conservation (Kinch 2006; Gjersten and Pakiding 2012). While Jamursba-Medi and Wermon beaches have been monitored fairly consistently over time, less is known about the status and trends of nesting beaches in Papua New Guinea, Solomon Islands, and Vanuatu. Records are further confounded by changes in place names and jurisdictional boundaries over recent decades (*e.g.* the Indonesian province formerly known as Irian Jaya is currently two provinces of Papua and Papua Barat). Village names or location descriptions have also changed over time, and geographic coordinates were not recorded historically. Therefore, all estimates of abundance in this DPS carry substantial uncertainty.

In Indonesia, aerial surveys provided the first indication of leatherback nesting in Papua (*i.e.,* Irian Jaya; Salm 1982). At that time, Salm (1982) did not provide location details out of concern that public disclosure prior to protection would be detrimental. Follow-up studies during the 1980s and 1990s indicated that a large nesting population was located along the coastal beaches of northern Papua or Papua Barat, Bird's Head Peninsula (Bhaskar 1985). Systematic monitoring of leatherback turtles began during the early 1990s, primarily in the form of annual nest counts (Hitipeuw *et al.* 2007). On the Bird's Head Peninsula of Papua Barat, nesting occurs mainly at Jamursba-Medi and Wermon, where a total of 1,371 nesting females were tagged between 2002 and 2011 (Tapilatu *et al.* 2013). The primary nesting season at Jamursba-Medi occurs during the summer (May to September), while nesting occurs year round at Wermon with a small peak in July and primary nesting activity during the winter, between November and February (Hitipeuw *et al.* 2007). Historically, approximately 60 percent of nesting activity occurs at Jamursba-Medi with 40 percent of activity at Wermon (Tapilatu *et al.* 2013). While a few females have been documented nesting at both beaches during a nesting season (Tapilatu *et al.* 2013), the vast majority of females do not appear to utilize both Jamursba-Medi and Wermon Beaches during a single nesting season (Tapilatu and Tiwari 2007; Tapilatu *et al.* 2013; Lontoh 2014). Based on nest counts and clutch frequency per season (mean = 5.5 +/− 1.6 nests per female), approximately 464 to 612 females nested at Jamursba-Medi and Wermon in 2011 (Tapilatu *et al.* 2013). Additional low-level nesting activity in Indonesia occurs in the Manokawari region of the Bird's Head Peninsula to the east of the Jamursba-Medi and Wermon Beaches (Suganuma *et al.* 2012). Between 2008 and 2011, 84 to 135 nests were recorded, or a mean of about 117 nests annually (Suganuma *et al.* 2012). However, survey effort was limited and not consistent across years and may underestimate total nesting activity. Further it is unknown whether interchange occurs between turtles nesting in the Manokawari region and those of the Bird's Head Peninsula index beaches. In 2016, nesting activity was identified in Central Maluku at Buru Island, west of Bird's Head Peninsula. In 2017, a monitoring program to quantify nesting activity was initiated on three north coast beaches of Buru Island (totaling 10 km) which documented 203 nests, and preliminary data indicates that there might be two nesting peaks: May through July and November through February (WWF 2018). Nesting activity in other areas of Indonesia are known or suspected, but unquantified (Dutton *et al.* 2007; Tapilatu 2017).

In Papua New Guinea, the majority of known nesting activity occurs during the winter months (November to February) along the Huon Coast on the northeastern coast of the Morobe Province, where 576 females were tagged between 1999 and 2013 (Pilcher 2006, 2008, 2009, 2010, 2011, 2012, 2013; Pilcher and Chaloupka 2013). Aerial surveys along the Huon Coast in January and December between 2004 and 2006 documented 276 nests, with an estimate of 500 nests per season (Benson *et al.* 2007b; Dutton *et al.* 2007). During the Huon Coast Leatherback Turtle Project, which took place between 2005 and 2012, an average of 258 nests were laid per season (range: 193 to 527) at seven beaches which comprised approximately 35 km of nesting habitat along the Huon Coast (Pilcher 2013; WPRFMC 2015). One challenge in estimating nesting activity in Papua New Guinea is that leatherback site fidelity appears to be variable, with some satellite tagged animals seen visiting a number of areas during one nesting season (Benson *et al.* 2007b). For example, a number of Huon Coast nesting females visited other nearby beaches and east-facing beaches of the Huon Peninsula, including Bougainville and Woodlark Islands during a single nesting season (Benson *et al.* 2007b). Therefore, for assessment purposes, we consider the Huon Coast to be one nesting beach complex.

Additional nesting activity occurs in other areas of Papua New Guinea, such as along the north coast of the Madang Province and on several islands including Manus, Long, New Britain, Bougainville, New Ireland, and Normanby (Prichard 1982; Spring 1982; Benson *et al.* 2007b; Dutton *et al.* 2007). In these areas nesting activity has not been quantified via standardized or consistent methods, but information has been obtained via community surveys, aerial surveys, or rapid assessments. Nesting occurs primarily in the winter months, although low-level year-round nesting may also occur (Spring 1982; Dutton *et al.* 2007). Approximately 50 nests may be laid annually along the north coast of the Madang Province (Benson *et al.* 2007b; TIRN 2017). The Islands of New Britain and Bougainville may host approximately 140 to 160

nests per year, respectively (Benson *et al.* 2007b; Dutton *et al.* 2007; Kinch *et al.* 2009). On Bougainville Island, aerial surveys conducted during the 2005 and 2007 nesting seasons documented a mean of 68 nests (range: 41 to 107 nests) or an extrapolated estimate of 160 to 415 nests per year (Dutton *et al.* 2007; Benson *et al.* 2007b). In 2009, a one week full-island ground survey (conducted by boat and foot) recorded 46 leatherback nests (Kinch *et al.* 2009).

In the Solomon Islands nesting activity is distributed throughout the country with the majority of nesting activity at Sasakolo and Litogarhira beaches on Isabel Island, and on Rendova and Tetepare Islands in the Western Province (Pita 2005; Dutton *et al.* 2007; Benson *et al.* 2018a). The nesting season occurs primarily during winter (November through February), although some year-round nesting has been documented (Pilcher 2010b; Williams *et al.* 2014; Jino *et al.* 2018; TNC-Solomon Islands 2018 unpublished). Leatherback turtle monitoring was begun by the Solomon Island Department of Fisheries in 1989 (Pita 2005). Between 1999 and 2006, an estimated 640 to 700 nests were laid annually in the Solomon Islands, representing approximately eight percent of the total western Pacific leatherback nesting at that time (Dutton *et al.* 2007). At Sasokolo Beach, Isabel Island, during a 54 day monitoring period between November 28, 2000 and January 21, 2001, 132 nests were documented with an additional 35 nests present when monitoring began (Ramohia *et al.* 2001). Between December 27, 2006 and January 2, 2007, aerial surveys provided seasonal estimates of 207 nests laid on Isabel Island, and an additional 312 nests on other islands (Benson *et al.* 2018a). A January 2011 site visit resulted in 315 nests identified at Sasakolo and Litogahira (Tiwari 2011 unpublished). Recently, nesting activity has also been documented at the southeastern side of Isabel, where approximately 52 females may nest annually (TNC-Solomons 2018 unpublished). Since 2002, the Tetepare Descendants' Association (TDA) has monitored nesting activity opportunistically in the Solomon Islands, where approximately 30 to 50 leatherback nests are laid seasonally on two beaches (Goby *et al.* 2010). Between July 1, 2012 and April 30, 2013, TDA undertook 257 beach surveys and found 44 leatherback nests (TDA 2013). While monitoring efforts may be ongoing, data management and analysis remains a key challenge for these isolated communities (TDA 2013; Pilcher 2010b). At Rendova Island during the 2003/2004 winter nesting season, 235 leatherback turtle nests were recorded, and during the 2009/2010 season, 79 nests were laid (Pilcher 2010b; Goby *et al.* 2010). Likely the most comprehensive surveys occurred from September 1, 2012 to April 30, 2013 (91 patrols, 3 days per week), which documented a total of 74 nests (TDA 2013). During the 2017/2018 winter nesting season, 29 nests were documented (Solomon Islands Community Conservation Partnership 2018 unpublished data). The community on Vangunu Island documented a total of 23 nests and 11 females between June 2011 and July 2014 (Jino *et al.* 2018). Nesting occurred during two distinct seasons from May to July and from November to January, and of the females tagged, one nested successfully six times and another nested five times (Jino *et al.* 2018). The other nine turtles were only observed nesting once or twice, and it is likely that either some nesting events were not recorded or the females nested on surrounding unmonitored beaches (Jino *et al.* 2018). On Malaita Island at Waisurione beach, nesting activity occurs during the summer (June to August), but only a few females were determined to use the area, with five and seven nests documented in 2014 and 2015, respectively (Williams *et al.* 2014).

Nesting occurs in low numbers at other islands in the western Pacific Ocean. In Vanuatu, 30 to 40 nests are laid annually on Epi and Ambrym Islands (Dutton *et al.* 2007; Petro *et al.* 2007; WSB 2011), although fewer nests (n = 15) were documented during the 2014/2015 nesting season (WSB 2016). Leatherback turtles have been reported in Fiji (Rupeni *et al.* 2002; NMFS and USFWS 2013; Jino *et al.* 2018), but these accounts involved foraging or in-water capture of animals, and it is unclear if historic reports included nesting activity (Guinea 1993; Benson *et al.* 2013). Historical nesting records also exist for the eastern coast of Queensland, in New South Wales, and in the Northern Territories from December to February (Dobbs 2002; Limpus 2009). However, current information was not available at the time of the study, and no nests have been observed since 1995 despite regular monitoring (Flint *et al.* 2012). Since the 1980s, there have also been reports of leatherback turtles nesting in the Philippines (Cruz 2006; MRF 2010). Of recent reports, two documented cases have been confirmed by sea turtle experts (*i.e.,* staff of the Marine Wildlife Watch of the Philippines). On July 15, 2013, at Barangay Yawah, Legazpi City, Albay, NAVFORSOL (the Philippines Naval facility) personnel observed a leatherback nesting, but the eggs failed to hatch. On August 6, 2013 at Camp Picardo beach, Barangay, Eastern Samar, a nesting event was aborted due to disturbance on the beach, but according to the social media report (*i.e.,* a Facebook post), the female was tagged and led back to sea (MWWP unpublished 2018). Given the low-site fidelity of the turtles in this DPS (Benson *et al.* 2007b), it is not surprising that leatherbacks might distribute nests among various areas throughout the region.

The total index of nesting female abundance of the West Pacific DPS (*i.e.,* 1,277 females) places it at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). These processes, working alone or in concert, place small populations at a greater extinction risk than large populations, which are better able to absorb impacts to habitat or losses in individuals. Due to its small size, the DPS has restricted capacity to buffer such losses. Given the intrinsic problems of small population size, we conclude that the nesting female abundance is a major factor in the extinction risk of this DPS.

Productivity

The West Pacific DPS exhibits a declining nesting trend. We conducted trend analyses for the two index beaches in Indonesia, which were the only two beaches with 9 or more recent years of standardized data, with the most recent data collection in 2014 or more recently (the standards for conducting a trend analysis in this report). The median trend in annual nest counts estimated for Jamursba-Medi (data collected from 2001 to 2017) was −5.7 percent annually (sd = 5.4 percent; 95 percent CI = −16.2 to 5.3 percent; f = 0.867; mean annual nests = 2,063). While data are available for the period starting in 1999, the best available information indicates that beach monitoring and nest protection practices improved in 2001; therefore, we used the time series starting in 2001. For Wermon (data collected from 2006 to 2017, excluding 2002–2005 and 2013–2015 due to low or insufficient effort), the median trend was −2.3 percent annually (sd = 8.4 percent; 95 percent CI = −19.8 to 14.9 percent; f = 0.643; mean annual nests = 1,010). As Jamursba-Medi and Wermon currently represent approximately 75 percent of nesting for this DPS, we

consider these declining trends to be representative of the entire DPS.

Our trend data for Indonesia yield similar results to other published findings. The IUCN Red List assessment found a decreasing trend of −7 percent annually (Tiwari *et al.* 2013). Tapilatu *et al.* (2013) identified a −5.5 percent annual rate of decline at Jamursba-Medi between 1984 and 2011 and a −11.6 percent annual rate of decline at Wermon between 2002 and 2011. Between 1986 and 2010, Benson *et al.* (2013) highlighted drastic declines in the annual number of nests at Jamursba-Medi and Wermon. Additionally, a 27-year aerial survey study indicates a decline in the number of leatherback turtles foraging off central California (Benson *et al.* 2018b). From 1995 to 2003, an estimated 12 to 379 individuals (mean = 178) foraged in this area (Benson *et al.* 2007), while from 2004 to 2017, an estimated 23 to 112 individuals foraged in this area, representing a decline of 5.6 percent annually (Benson *et al.* 2018b).

At Jamursba-Medi, nesting data have been collected for some years since 1981. However, no data were collected during many years in the mid-1980s and late 1990s (Tapilatu *et al.* 2013). There is considerable uncertainty in the early estimates, with over 4,000 nests estimated in 1981, 14,522 nests in 1984, and a dramatic drop to 3,261 nests in 1985 (Tapilatu *et al.* 2013). It is unclear if there was sampling inconsistency between years or if there was an actual decline in nesting activity. However, if analyses are based on the 1984 data, during which the greatest number of nests was recorded, there was a 78.3 percent decline over the past 27 years (1984 to 2011), or 5.5 percent annual rate of decline (Tapilatu *et al.* 2013). Alternatively, if analysis is based on 2005 to 2011 when the Tapilatu *et al.* (2013) study ensued, nesting activity declined 29 percent from 2,626 nests (in 2005) to 1,596 nests (in 2011; Tapilatu *et al.* 2013). Since the Tapilatu *et al.* (2013) study, University of Papua scientists have continued to engage with local communities to monitor nesting activity. The overall nesting trend has continued to decline by 5.6 percent per year between 2003 and 2017. However, there appears to be an increase in nesting since 2013 (Tiwari *et al.* in prep).

The first comprehensive surveys at Wermon beach in 2002 found almost as many nests laid on Wermon as on Jamursba-Medi (Hitipeuw *et al.* 2007). At that time, it was hypothesized that the decline at Jamursba-Medi may have been offset by an increase at Wermon (Hitipeuw *et al.* 2007). However, Tapilatu *et al.* (2013) found a significant decline in nesting at Wermon from 2,994 nests in 2002 to 1,096 nests in 2011 (62.8 percent total or 11.6 percent annual rate of decline). Unfortunately, no monitoring activities occurred at Wermon between 2013 and 2015 due to community discord, which prevented beach access. Between 2006 and 2017, nesting has continued to decline at approximately 2.3 percent (Tiwari *et al.* in prep). However, there may have been a slight increase in recent nesting, similar to Jamursba-Medi (Tiwari *et al.* in prep).

Local residents stated that leatherback turtles were the dominant sea turtle species nesting in Maokawari prior to the 1980s, but that the population has declined significantly since the 1990s due to village development and exploitation of turtles and eggs (Tapilatu *et al.* 2017).

Data collection in Papua New Guinea spanned 8 years and ended prior to 2014. Because these data did not meet our criteria for ''recent,'' we did not perform a trend analysis, but included a bar graph in the Status Review Report. In Papua New Guinea, nesting activity along the Huon Coast was relatively stable between 2005 and 2013, with 193 to 527 nests per year (mean annual nests = 258) and with most nesting activity occurring at two primary areas, Busama and Kamiali (Pilcher 2013; Benson *et al.* 2015; WPRFMC 2015). Given the exchange of females and evidence of multiple beach use among females in Papua New Guinea (Benson *et al.* 2007b), we consider the Huon Coast to be one nesting area and not individual nesting beaches. Though there have been several independent studies of abundance over time, we determined that these data are inadequate to incorporate into a trend analysis because these data do not meet our criteria (*i.e.,* nest count data consistently collected in a standardized approach for at least 9 years). For historical perspective, leatherback turtle nesting along the Huon Coast was first identified south of the city of Lae near the Buang River, at an area likely between Labu Tale and Busama villages (*i.e.,* Maus Buang or Buang-Buassi; Bedding and Lockhart 1989; Quinn and Kojis 1985; Hirth *et al.* 1993). Estimates of leatherback turtle nesting at Maus Buang during the 1980s ranged from five to 10 turtles per night from November to January (Quinn and Kojis 1985) or 300 nests laid annually (Bedding and Lockhart 1989). Quinn and Kojis (1985) estimated that 300 to 500 females may nest annually in Papua New Guinea, although it is unclear if estimates were for the Maus Buang area specifically or the Huon Coast at large. Hirth *et al.* (1993) undertook the most standardized survey at that time and recorded 76 nests and 34 females nesting at ''Piguwa'' (*i.e.,* Maus Buang) on 725 meters of beach during a 15-day period in December 1989. During the Huon Coast leatherback turtle nesting beach program, an average of 35 and 114 nests were laid annually during the 4-month nesting season in this similar area at Labu Tale and Busama beaches, respectively (Pilcher 2013; WPRFMC 2015). Kamiali Beach lies approximately 30 km south of the city of Lae. In 1996, the Kamiali Wildlife Management Area was declared a protected area for leatherback turtles, and the harvest of nests was prohibited along 2 km of beach. In 1999, village rangers began opportunistic tagging of nesting females at Kamiali. A community-based nesting beach monitoring program was established in 2003, which soon grew into the Huon Coast Leatherback Turtle Conservation Program (Benson *et al.* 2007b; Pilcher and Chaloupka 2013; Kinch 2006). By 2005, monitoring activities expanded from Kamiali Beach (approximately 7 km) to seven beaches encompassing approximately 35 km of nesting beaches, which included an agreement by participating villages to no longer harvest eggs (Kinch 2006; Pilcher 2013). Of these seven beaches, Kamiali was the nesting beach with the longest running, most consistent monitoring within the Huon Coast nesting beach complex. At Kamiali, 194 females were tagged between 1999 and 2012, and an average of 77 nests laid per winter nesting season between 2005/2006 and 2012/2013 (Pilcher 2010, 2011, 2012, 2013; Pilcher and Chaloupka 2013). While we are unable to interpret an overall trend from these studies, anecdotal reports from villagers and historic information indicates that leatherback nesting activity was significantly greater in past decades (Benson *et al.* 2007b, 2015; Hirth *et al.* 1993; Kinch 2006; Bellagio Sea Turtle Conservation Initiative 2008).

In the Solomon Islands, it is not possible to estimate nesting trends due to non-standardized methods and opportunistic monitoring efforts over time. Available datasets cannot be compared due to differences in methodology and do not meet our criteria (*i.e.,* nest count data consistently collected in a standardized approach for at least 9 years). Historically, nesting was reported at more than 15 beaches in the Solomon Islands, which may have totaled several hundred nests per season (McKeown 1977; Vaughan 1981). Currently, nesting activity occurs

primarily in eight locations (Pita 2005; Dutton *et al.* 2007; Benson *et al.* 2018a; Jino *et al.* 2018). However, due to the remoteness of these areas and lack of systematic surveys, and likely additional undocumented nesting beaches, additional low numbers of nesting leatherback turtles are likely to exist in Solomon Islands. For example, nesting activity was recently identified on Vanugnu Island, where 23 nests were recorded and 11 females nested between 2011 and 2014 (Jino *et al.* 2018). Additionally, it is unknown to what extent females use multiple beaches throughout the Solomon Islands, or those in Papua New Guinea, and what proportion of females nest in the summer versus winter (Benson *et al.* 2007b; Jino *et al.* 2018; TNC-Solomons 2018 unpublished). While we are unable to interpret an overall trend, local villagers indicate that leatherback nesting was greater in past decades (Bellagio Sea Turtle Conservation Initiative 2008; Benson *et al.* 2007b; Benson *et al.* 2015).

In Vanuatu, anecdotal information suggests that nesting has declined over time (Petro *et al.* 2007). During the 2010/2011 winter nesting season, 41 nests were laid at Votlo Beach, Epi Island, and, during the 2014/2015 nesting season, three females laid 15 nests (WSB 2011, 2016). It is not possible to estimate nest trends due to non-standardized methods and opportunistic monitoring efforts over time, which render existing data incomparable and do not meet our criteria (*i.e.,* nest count data consistently collected in a standardized approach for at least 9 years).

In addition to an overall declining nest trend, the West Pacific DPS exhibits low reproductive output (*i.e.,* low hatching success), due in part to a combination of past and current threats (*e.g.,* beach erosion, predation, and beach temperatures).

The DPS exhibits low productivity (*i.e.,* low hatching success), and the overall nest trend is declining, likely due to anthropogenic and environmental impacts at nesting beaches and in foraging habitats (Tiwari *et al.* 2013). We conclude that the declining nest trend and low reproductive output place the DPS at elevated extinction risk, especially given the low nesting female abundance.

Spatial Distribution

The West Pacific DPS nests throughout four countries with a broad, diverse foraging range. It exhibits metapopulation dynamics and fine-scale population structure.

Aerial surveys conducted between 2004 and 2007 identified Indonesia, Papua New Guinea and Solomon Islands as the core nesting areas for the DPS (Benson *et al.* 2007a; Benson *et al.* 2007b; Benson *et al.* 2011; Benson *et al.* 2018b). During the nesting season, nesting females generally stayed within 300 km or less of these nesting beaches, although a few females were documented visiting multiple beaches during a nesting season (Benson *et al.* 2007b). Distributing nesting activity among various habitats may help to buffer some of the population from impacts at a single nesting area, but the majority of females utilize one nesting area during a nesting season (Benson *et al.* 2011).

Migration and foraging strategies vary based on nesting season, likely due to prevailing offshore currents and seasonal monsoon-related effects experienced by the turtles as hatchlings (Gaspar *et al.* 2012). The lack of crossover among seasonal nesting populations suggests that leatherback turtles develop fidelity for specific foraging regions, likely based on juvenile dispersal patterns (Benson *et al.* 2011; Gaspar *et al.* 2012; Gaspar and Lalire 2017). Oceanic currents help to structure the spatial and temporal distribution of juveniles and lead them to foraging and developmental habitats (*e.g.,* the North Pacific Transition Zone) and to undertake seasonal migrations seeking favorable oceanic habitats/temperatures and abundant foraging resources, such as the central California ecoregion (Gaspar and Lalire 2017). Inter-annual or long-term variability in dispersal patterns can influence population impacts or resilience to regional or Pacific Ocean perturbations (*e.g.,* exposure to fisheries, ENSO events, etc.). Stable isotopes, linked to particular foraging regions, confirm nesting season fidelity to specific foraging regions (Seminoff *et al.* 2012). Size differences are also apparent, with slightly larger adults appearing to exploit distant temperate foraging habitats regardless of nesting season (Benson *et al.* 2011; Lontoh 2014).

Summer nesting females forage in Northern Hemisphere habitats in Asia and the Central North Pacific Ocean, while winter nesting females forage in tropical waters of the Southern Hemisphere in the South Pacific Ocean (Benson *et al.* 2011; Harrison *et al.* 2018). This variance in foraging strategy results in a foraging range that covers much of the Pacific Ocean: Tasman Sea; East Australian Current; eastern and western South Pacific Ocean; Indonesian, Sulu and Sulawesi, and South China Seas; North Pacific Transition Zone; equatorial currents; and central California ecoregion (Benson *et al.* 2011; Lontoh 2014; Harrison *et al.* 2018; Jino *et al.* 2018). Different strategies result in demographic differences within the DPS which may affect productivity and reproductive output. For example, leatherback turtles that exploit distant temperate foraging habitats (*e.g.,* central California) may require multiple years of seasonal foraging before returning to nesting beaches, due to greater energetic demands. In contrast, leatherback turtles exploiting geographically closer, year-round prey resources in more tropical habitats (*e.g.,* Sulu Sulawesi and South China Seas) may remigrate annually (Lontoh 2014).

The DPS also exhibits genetic population structure. While mtDNA analyses of 106 samples from Indonesia, Papua New Guinea, and Solomon Islands did not detect genetic differentiation among nesting aggregations (Dutton *et al.* 2007), microsatellite DNA analyses indicate fine-scale genetic structure (Dutton 2019; NMFS SWFSC unpublished data).

The wide distribution and variance in foraging strategies likely buffers the DPS to some degree against local catastrophes or environmental changes that would limit prey availability. The distribution of nesting beaches throughout four countries, although primarily concentrated in three, helps to buffer the entire DPS from major environmental catastrophes, because disturbances are not likely to similarly affect all countries during the same seasons. Additionally, the fine-scale genetic structure among nesting aggregations is indicative of metapopulation dynamics, which may also provide the DPS with some resilience.

Diversity

The West Pacific DPS exhibits genetic diversity, with six haplotypes identified in 106 samples from Solomon Islands, Papua Barat Indonesia, and Papua New Guinea (Dutton 2006; Dutton *et al.* 2007; Dutton and Squires 2008). This may provide the DPS with the raw material necessary for adapting to long-term environmental changes, such as cyclic or directional changes in ocean environments due to natural and human causes (McElhany *et al.* 2000; NMFS 2017). The population also exhibits temporal nesting diversity, with various proportions of the population nesting during different times of the year (summer versus winter) which helps to increase resilience to environmental impacts. The foraging strategies are also diverse, with turtles using seven

ecoregions of the Pacific Ocean. Diverse foraging strategies likely provide some resilience against local reductions in prey availability or catastrophic events, such as oil spills or typhoons, by limiting exposure from a single event to only a portion of the DPS. We conclude that diversity within the DPS provides it with some level of resilience to threats.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

The destruction or modification of habitat is a threat to this DPS. Primary impacts to nesting beaches include erosion and ocean inundation, which may be caused by natural processes.

Nesting beaches of the West Pacific DPS are dynamic, high profile beaches that are subject to erosion, such as during King Tides (naturally occurring, predictable highest tides), which are common seasonal occurrences. In Indonesia, the Bird's Head Peninsula beaches are also subject to seasonal patterns of erosion and accretion. Changes in the currents brought on by monsoons beginning in September cause major erosion at Jamursba-Medi that often removes the entire beach, making the habitat unsuitable for nesting until accretion begins again in March (Hitipieuw *et al.* 2007). This natural erosion has been documented to impact many nests at Jamursba-Medi (Hitipeuw *et al.* 2007). Arguably, western Pacific leatherbacks have been dealing with such changes in beach habitats over time, and a turtle's long reproductive lifespan in general is designed to sustain nest loss during a few bad years or seasons. For example, during the 2003/2004 nesting season, 80 percent of marked nests at Jamursba-Medi (Warmamedi beach) washed away before they hatched (Hitipeuw *et al.* 2007). However, given the low abundance of the population, the loss (or continued loss over time) of nests is a concern.

At Wermon, the inundation of nests from high tides is a threat during the winter months. During the 2008/2009 winter nesting season, 26 percent of nests laid at Wermon were inundated by tidal activity (Wurlianty and Hitipeuw 2009). During the 2004/2005 nesting season, 23 percent of nests were lost to inundation (Wurlianty and Hitipeuw 2005). During the 2003/2004 nesting season, 10.7 percent of all nests at Wermon were below the high water mark and were subsequently washed away by high tides (Hitipeuw *et al.* 2007). Tapilatu and Tiwari (2007) stressed that any management plan developed for Papua will need to address the impact of inundation and beach erosion.

Beach erosion is also a threat to nests in Papua New Guinea, where strong storms and tidal surges result in substantial erosion and changes to beaches throughout the Huon Coast. For example, much of the Labu Tale nesting beach was lost to erosion during the 2012/2013 nesting season (Pilcher 2013). The differences in beach width along the Huon Coast place some beaches at more risk of inundation and erosion, such as Kamiali Beach, which is half the width and significantly narrower than Busama Beach (Pilcher 2008). At Kamiali, the average distance of nests to the sea was 3.2 m, compared to 6.2 m at Busama; the distances to the vegetation line were comparable across sites (1.3 m and 1.7 m, respectively; Pilcher 2013).

In Vanuatu, there has been low hatching success in some years due to storms, floods, and high water (Petro *et al.* 2007; WSB 2016).

In recent years, management and conservation practices have included relocating erosion-prone nests to bolster hatchling production. However, these projects are funding-dependent throughout the range of the West Pacific DPS. At Jamursba-Medi, ''doomed'' nests (*i.e.,* those that are likely to be lost to erosion or inundation) are sometimes relocated to a more stable section of beach; 15 nests were relocated during the 2017 summer nesting season (Tiwari *et al.* in prep.). At Wermon, nests are relocated to avoid erosion and tidal inundation, and increasingly due to *Ipomea* root invasion (Tiwari *et al.* in prep), but beach management activities are project-dependent. At Wermon during the 2017/18 winter nesting season, nests could not be relocated because of the lack of permission from the beach owners, and all but three nests washed away (Tiwari *et al.* in prep). In Papua New Guinea, 22 of 47 nests (47 percent) at Kamiali beach were relocated to protect them from storm surge and erosion during the 2011/2012 nesting season, and 41 percent of nests were relocated during the 2009/2010 season (Pilcher 2012). In the Solomon Islands, efforts to relocate ''doomed'' nests is an ongoing and necessary management strategy to help bolster hatchling production, given that a large proportion of nests are inundated or have very low hatching success (Goby *et al.* 2010; TDA 2013; Jino *et al.* 2018).

A large, significant portion of nests (*i.e.,* 10.7 percent to nearly all) are exposed to the reduction and modification of nesting habitat, as a result of erosion and inundation. This threat impacts the DPS by reducing nesting and hatching success, which has been documented throughout the nesting range of the DPS (NMFS and USFWS 2013; Bellagio Sea Turtle Conservation Initiative 2008). While West Pacific leatherback turtles have undoubtedly evolved to sustain changes in beach habitats given their proclivity to select highly dynamic and typically narrow beach habitats, and therefore at the population level can sustain some level (albeit unquantified level) of nest loss. However, the increasing frequency of storms and high water events perhaps as a result of climate change can result in increased and perhaps unnatural loss of nests. Such impacts may lower the productivity of the DPS. Based on the information presented above, we conclude that habitat loss and modification is a threat to the DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The primary threat to the West Pacific DPS is the harvest (both legal and illegal) of leatherback turtles and their eggs. Leatherback turtles are protected by regulatory mechanisms in all four nations where the DPS nests, but laws are largely ignored and not consistently enforced. This is due to the extreme remoteness of beaches, customary and traditional community-based ownership of natural resources (which includes sea turtles), and overall lack of institutional capacity and funding for enforcement. Furthermore, the cultural and socio-economic dynamics in these nations confound community buy-in and conservation efforts (Kinch 2006; Gjersten and Pakiding 2012; von Essen *et al.* 2014). Additionally, there are nuances related to indigenous harvest (and the definition thereof), some of which is permitted in these nations.

Turtle poaching affects both nesting females on beaches and turtles in their foraging habitats (Bellagio Sea Turtle Conservation Initiative 2008; Kinch 2009; Suarez and Starbird 1996; Tiwari *et al.* 2013; WWF 2018). Turtle poaching has been documented in all four countries where this DPS nests. Egg poaching is a well-documented threat (past and current) and is widespread throughout the range of the DPS (Bellagio Sea Turtle Conservation Initiative 2008; NMFS and USFWS 2013; Tiwari *et al.* 2013; Tapilatu *et al.* 2017).

In Indonesia, the poaching of turtles and eggs continues to occur, though egg harvest and exploitation of females has been minimized at Jamursba-Medi and Wermon beaches due to the presence of monitoring programs and educational outreach. Large-scale egg poaching

occurred at Jamursba-Medi between 1980 and 1993, whereby approximately 4 to 5 boats per week (from May to August) collected 10,000 to 15,000 eggs per boat (Tapilatu *et al.* 2013). Commercial egg harvest has been effectively eliminated since beach monitoring was established at that beach in 1993 (Hitipeuw *et al.* 2007). However, recent survey efforts indicate that most, if not all, sea turtle eggs (including leatherback turtles) are poached at other Bird's Head Peninsula beaches and sold in local markets (Tapilatu *et al.* 2017). At Buru Island, Indonesia, between 2016 and 2017, eight females were poached (WWF 2018), and over the past 20+ years, three to five nesting females have likely been taken annually (J. Wang, NMFS, pers. comm., 2018). In 2017, 114 of 203 leatherback nests were harvested at Buru Island (WWF 2018). In 2018, due to education provided by the newly established WWF program on Buru Island, local community-based efforts in four villages now prohibit female and egg harvest. While protective laws exist in Indonesia, enforcement is largely lacking in areas where monitoring programs do not exist.

In Indonesia, foraging leatherback turtles are also harvested in the waters of the Kei Islands, Maluku Province, where a recognized indigenous subsistence harvest of immature and adult turtles (average size 145 to 170 cm; range 52 to 203 cm) occurs and has likely been a key feature of the local traditional culture for centuries (Compost 1980; Hamman *et al.* 2006; Hitipeuw and Lawalata 2006, 2008). Within the Kei Islands, customary law (''*hak adat*'') authorizes a ritual leatherback turtle hunt in the nine villages of the traditional kingdom of the Nufit people. Starbird and Suarez (1994) brought attention to this hunt when they reported that approximately 200 turtles were harpooned in three months (October to December) of 1994, with as many as 13 taken in one day. Over the past three decades, sporadic monitoring efforts have estimated that up to 100 individuals are harvested annually (Suarez and Starbird 1996; Hitipeuw and Lawalata 2008; WWF 2018). At one point, it was assumed that harvest pressure had declined and was no longer an issue (NMFS and USFWS 2013). However, recent surveys indicate that harvest continues, with conservative estimates of 431 turtles killed over an 8-year period (an average of 53.9 turtles annually), typically between August to February (Hitipeuw and Lawalata 2008), and at least 103 turtles harvested in 2017 (WWF 2018). Most concerning perhaps is that some of the turtle meat harvested may be commercially sold as dried meat (*i.e.,* leatherback ''jerky'' locally known as dendeng), which is illegal to sell and inconsistent with indigenous traditional practices. Of four genetic samples acquired in 1995 from turtles harvested in the Kei Islands, three were assigned to Birds Head Indonesian region and the fourth sample was not definitive (66 percent probability, with 34 percent probability to Solomon Islands), although it could also be from the Indian Ocean or from an undetermined location (NMFS SWFSC unpublished data 2018).

In Papua New Guinea, turtle and egg poaching is a major threat despite the fact that leatherback turtles have been protected since the 1976 Fauna (Protection and Control) Act. The illegal take of both eggs and turtles likely continues throughout the country due to lack of community-based awareness, reliance on traditional community-based practices, institutional capacity, and law enforcement (Bellagio Sea Turtle Conservation Initiative, 2008). The killing of nesting females has also been well documented throughout Papua New Guinea (Bellagio Sea Turtle Conservation Initiative 2008; Kinch 2009; Pilcher 2013). For example, at Bougainville Island, surveys of community members identified that 21 nesting females were poached during the last decade (Kinch 2009). However, the harvest of eggs is likely the most prolific threat in Papua New Guinea. If unprotected, egg harvest (compounded by intense dog predation described below) resulted in the loss of 70 to 100 percent of nests (Quinn and Kojis 1985; Hirth 1993; Bellagio Sea Turtle Conservation Initiative 2008; Pilcher 2013). For example, during a one week survey in January 2009 at Bougainville Island, almost 100 percent of the 46 documented nests were poached (Kinch 2009). It is likely that near total egg collection occurred throughout the Huon Coast between World War II and the establishment of the Huon Coast Leatherback Turtle Monitoring and Conservation Program in 2003 (Bellagio Sea Turtle Conservation Initiative 2008; Pilcher and Chaloupka 2013; Pilcher 2013). The Huon Coast Project, which operated between 2003 and 2013, helped to reduce egg and turtle harvest due to program involvement and community incentive funds received in exchange for non-harvest agreements (Pilcher 2013). As a result of the program, hatchling production (*i.e.,* percent of eggs yielding hatchlings) increased from zero to approximately 60 percent (Pilcher 2009, 2011, 2013; WPRFMC 2015). The Project ended in 2013, and unfortunately egg harvest resumed since there was no incentive for communities to maintain their no-harvest agreements (John Ben, Huon Coast Leatherback Turtle Project, pers. comm., 2020).

In Vanuatu and the Solomon Islands, the poaching of females and collection of eggs is also well documented (Bellagio Sea Turtle Conservation Initiative 2008; NMFS and USFWS 2013). In Vanuatu, MacKay *et al.* (2014) reported the harvest of five nesting females between 1999 and 2008. However there is a general understanding that nesting females were typically harvested (Petro *et al.* 2007). Of the 315 nests documented on Isabel Island, Solomon Islands during a January 2011 site visit at Sasokolo and Litogahira beaches, the majority of nests had been poached (Tiwari 2011 unpublished data). Historically, nearly all nesting females and eggs were poached on Redova for consumption (Tiwari 2011 unpublished data). In response, financial incentive programs have been established to protect nests and females whereby villagers are paid a financial reward for each nest that hatches successfully (TDA 2013). On Vangunu Island, 10 to 20 nesting females were poached annually, in addition to near-total egg collection (Jino *et al.* 2018). In response to declining population trends, the community declared a moratorium on the harvest of leatherback turtles in 1999 (Jino *et al.* 2018), and a community incentive program providing financial awards has helped to reduce harvest pressure (TDA 2013). Despite these efforts and protective legislation, the poaching of females and eggs likely persists throughout the Solomon Islands (TDA 2013: Tiwari 2011 unpublished; MacKay *et al.* 2014).

Within the West Pacific DPS, many nesting females, foraging turtles, and eggs are exposed to both illegal poaching and legal harvest. The taking of turtles reduces abundance. The taking of nesting females reduces both abundance and productivity. Such impacts are high because they directly remove the most productive individuals from the DPS, reducing current and/or future reproductive potential. Egg harvest reduces productivity; the persistent, and near-total (at some locations) collection of eggs guarantees that future population recruitment (*i.e.,* nesting female abundance) will be reduced or eliminated. Given the declining nesting trend and current nesting female abundance of this DPS, the continued and unregulated poaching

or harvest of leatherback turtles and eggs is unsustainable. Further, the harvest of approximately 100 foraging leatherback turtles annually at the Kei Islands, Indonesia is likely an unsustainable practice given the current low abundance of the population. We conclude that overutilization is a major, and the primary, threat to the West Pacific DPS, accelerating its risk of extinction.

Disease or Predation

While we could not find any information on disease for this DPS, predation of eggs is a major and well-documented threat to the West Pacific DPS, likely second to poaching (*i.e.,* nests not taken by humans are typically predated; Bellagio Sea Turtle Conservation Initiative 2008).

In Indonesia, predation of eggs by feral pigs, feral dogs, and monitor lizards has been documented, with feral pig predation being the most detrimental (Hitipeuw and Maturbongs 2002; Tapilatu and Tiwari 2007; Bellagio Sea Turtle Conservation Initiative 2008). Nest predation by domestic and/or feral dogs has been recorded in both Jamursba-Medi and Wermon. Predation of nesting females by crocodiles has also been documented at Wermon beach (Bellagio Sea Turtle Conservation Initiative 2008; UNIPA, pers. comm., 2018). At Jamursba-Medi, between June and July of 2005, 29.3 percent of nests were destroyed by pigs (Tapilatu and Tiwari 2007). Intensive management effort at Jamursba-Medi reduced feral pig predation of nests to five percent during the 2016 and 2017 nesting seasons (Tiwari *et al.* in prep). Feral pigs and dogs depredated 17.5 percent of all nests at Wermon during the 2003 and 2004 winter nesting season (Hitipeuw *et al.* 2007). At Wermon, 21 percent of nests were lost to predation during the 2004/2005 nesting season (Wurlianty and Hitipeuw 2005). At Buru Island in 2017, 16 nests were lost to predation by dogs, wild boar, lizards, or saltwater crocodiles (WWF 2018).

In Papua New Guinea, predators of eggs include feral dogs, monitor lizards, and ghost crabs (Kinch 2009). Depredation of nests by village dogs was determined to be an intense threat to nests, with dogs consuming all nests laid during the 2003/2004 and 2004/2005 nesting seasons at Kamiali beach (Pilcher 2006; I. Kelly, NMFS, pers. comm., 2018). Predation of nesting females by crocodiles has also been documented in a number of locations in Papua New Guinea (Bellagio Sea Turtle Conservation Initiative 2008; Kinch 2009). To protect nests, Huon Coast communities developed and placed bamboo grids over nests to prevent dogs from preying on the eggs (Pilcher 2006; 2009). This, along with efforts to reduce egg harvest by humans, resulted in increased hatching production from zero to approximately 60 percent between 2006 and 2013, with over 2,300 nests saved producing approximately 100,000 hatchlings (Pilcher 2009; 2011; 2013; WRFMC 2015). However, this project ended in 2013, and it is unknown if egg protection continues, or if nest predation has resumed.

In this DPS, a large proportion of eggs are exposed to predation, especially by dogs and pigs. Predation primarily results in the loss of eggs, and the impact of this threat is a reduction of productivity. Though leatherback turtles generally produce a large number of eggs and hatchlings, predation is widespread throughout the range of the DPS, and in some areas, predation rates are as high as 100 percent. We conclude that predation poses a threat to the West Pacific DPS.

Inadequacy of Existing Regulatory Mechanisms

The West Pacific DPS is protected by several regulatory mechanisms. For each, we review the objectives of the regulation and to what extent it adequately addresses the targeted threat.

Leatherback turtles are protected by legislation in all four of the nations where the West Pacific DPS nests (Indonesia, Papua New Guinea, Solomon Islands, and Vanuatu). It is generally illegal to harvest leatherback turtles and their eggs. However, laws are not typically enforced or followed given customary marine tenure systems that dictate near-shore rights. Lack of enforcement or implementation of protective laws may be due to: Overall lack of in-country institutional capacity and funding for enforcement; the extreme remoteness of beaches; customary marine tenure or traditional community-based ownership of natural resources in these nations (which includes sea turtles; Kinch 2006; McDonald 2006) and regulatory government-led legislation, which may be incompatible with traditional practices (von Essen *et al.* 2014). There are also nuances related to indigenous harvest (and the definition thereof), which is not prohibited in these nations. As a result, most leatherback nesting beaches with the exception of Jamursba-Medi and Wermon (*i.e.,* beaches with established long-term monitoring programs) are not currently protected (or only minimally protected) from harvest or poaching of eggs, nesting females, or other anthropogenic threats.

In Indonesia, all sea turtles are protected by law, but there are allowances for indigenous peoples (although indigenous provisions are not clearly defined). The 1990 Government Regulation Act number 5 concerning the Conservation of the Natural Resources and the Ecosystem, makes the trade of protected wildlife illegal, and those found liable can be punished to a maximum of 5-year prison term and fined 100 million Indonesia Rupiah (approximately 6,500 USD). The protection of all sea turtle species (Government Regulation No. 7 on Preserving Flora and Fauna Species) came into effect in 1999 (Zainudin *et al.* 2007). The use of protected wildlife is allowed for the purposes of research, science, and rescue of the wildlife itself. While the trade and exploitation of turtles is illegal in Indonesia, there still exists a documented harvest of green turtles in Bali, which contributes to public confusion regarding sea turtle protections (Westerlaken 2016).

In Papua New Guinea, the leatherback turtle is the only species protected under the 1976 Fauna (Protection and Control) Act, which makes killing of leatherback turtles or taking of leatherback turtle eggs illegal, with fines of 500 to 1000 kina (approximately 100 to 300 USD). Any person who buys or sells or offers for sale, or has in possession leatherback turtle eggs or meat can also be fined. The Act makes provisions for persons with customary rights to take turtles, but states that sea turtles cannot be taken, killed, or sold from May through July (Kinch 2006). This is typically the nesting season for hard-shelled sea turtle species, but leatherback turtles nest primarily during the winter months (November to February). As with most Melanesian countries, lands are locally-owned and managed, and the national government has little influence outside major cities (Kinch 2006).

The Solomon Islands Fisheries Act (1993) regulations protect nesting turtles and eggs during the breeding season (June to August and November to January); prohibit the sale, purchase, or export of sea turtle species or their parts; and contain specific protections for leatherback turtles. In the Solomon Islands, more than 85 percent of the land is held under customary (locally-managed) marine tenure, and the vast majority of the population still lives in rural areas making a living from the natural resources on those lands. For centuries, communities have practiced traditional models of resource stewardship, making implementation and enforcement of national regulations nearly impossible. Instead, natural

resource governance must originate from chiefs and village leaders, which requires extensive educational outreach to encourage traditional approaches that may be supported by legal or 'modern' enforcement measures (McDonald 2006).

Fisheries Regulations under the Vanuatu Fisheries Act (2009) prohibit the take, harm, capture, disturbance, possession, sale, purchase of or interference with any turtle nest (or any turtle in the process of nesting) and the import, or export of green, hawksbill, and leatherback turtles or their products (shell, eggs, or hatchlings). The Act also prohibits the possession of turtles in captivity. A person may apply in writing to the Director of Fisheries for an exemption from all or any of these provisions for the purposes of carrying out customary practices, education, and/or research. Similar to Papua New Guinea and the Solomon Islands, natural resource governance in Vanuatu is best directed, realized, and implemented at the community level and not via national legislation. Fortunately, traditional practices are experiencing a renaissance in Vanuatu and may complement current regulatory marine resource management efforts (Hickey *et al.* 2006).

Throughout the foraging range of the DPS, there are numerous regulatory mechanisms that protect turtles within the DPS. These include: RFMOs such as the Western and Central Pacific Fisheries Commission (WCPFC) and the IATTC and fisheries management regulations in 32 nations where this DPS may occur (Harrison *et al.* 2018). The WCPFC adopted a Sea Turtle Conservation and Management Measure (CMM 2008–03) to mitigate the impacts on turtles from commercial shallow-set fisheries operating in the Western and Central Pacific Ocean. The measure included the adoption of FAO (2009) guidelines to reduce sea turtle mortality through safe handling practices and to reduce bycatch by implementing one of three methods by January 2010. The three methods to choose from are: (1) Use only large circle hooks with offsets of ≤10°; (2) use whole finfish bait; or (3) use any other mitigation plan or activity that has been approved by the Commission. This sea turtle conservation measure is specific to self-identified shallow-setting, swordfish-targeting fleets. It does not apply to the international Pacific longline deep-set tuna-targeting fisheries, which comprise the majority of the longline fisheries and are also known to interact with leatherback turtles (Lewison *et al.* 2004; Beverly and Chapman 2007; Roe *et al.* 2014; Wallace *et al.* 2013). Technical analysis of the sea turtle conservation measure found a very small percentage of shallow-set fisheries to be in compliance, with less than one percent of Western and Central Pacific Ocean longline effort implementing mitigation measures, even though approximately 20 percent of longline effort consists of shallow sets (Clarke 2017). Further, many RFMO members are not meeting the five percent observer coverage requirement resulting in limited bycatch reporting (Clarke 2017).

In summary, regulatory mechanisms exist to protect leatherback turtles and their eggs throughout the range of this DPS. However, most are inadequate to reduce the threat that they were designed to address due to a lack of implementation or enforcement or inclusion of provisions for indigenous harvest. Regulations are also misaligned with established traditional practice and management systems. As a result, poaching and bycatch remain major threats to the DPS. In summary, we consider the inadequacy of the regulatory mechanisms to be a threat to the DPS.

Fisheries Bycatch

Fishery bycatch in coastal and pelagic fisheries is a major threat to the West Pacific DPS, which is exposed to domestic and international fisheries throughout its extensive foraging range. At-sea bycatch of leatherback turtles has been documented for a variety of gillnet and longline fisheries in the Pacific Ocean, but little is known about the total magnitude or full geographic extent of mortality. Satellite telemetry studies have identified movements and revealed fidelity to foraging regions of the DPS, specifically in habitats of the North Pacific Ocean, southwestern Pacific Ocean, and Indo-Pacific tropical seas (Bailey *et al.* 2012; Benson *et al.* 2011, Seminoff *et al.* 2012; Roe *et al.* 2014). The summer nesting component of the population exhibits strong site fidelity to the central California foraging area (Benson *et al.* 2011) which puts them at risk during migrations of interacting with U.S. and international pelagic longline fleets operating throughout the Central and North Pacific Oceans. For example, several of the turtles tagged in Papua Barat, Indonesia were known or suspected to have been killed in fisheries operating off Japan, Philippines, and Malaysia (Benson *et al.* 2011).

Historically, significant leatherback bycatch was documented in the North Pacific high seas driftnet fishery, which expanded rapidly during the late 1970s but was banned in 1992 by a UN resolution (summarized in Benson *et al.* 2015). Wetherall *et al.* (1993) estimated that over 750 leatherback turtles were killed in Japanese, Korean, and Taiwanese driftnet fisheries during the 1990 to 1991 season, with potentially 5,000 to 10,000 leatherback turtles bycaught between the late 1970s and 1992. Based on current knowledge of movement patterns (Benson *et al.* 2011), the majority of these bycaught turtles would have originated from western Pacific nesting beaches after their boreal summer nesting period. Thus, high seas driftnet fishery bycatch was likely a significant contributor to the population declines observed at nesting beaches during the 1980s and 1990s (Benson *et al.* 2015).

Many nations are involved in longline fishing in the Pacific Ocean, where two types of vessels are used: (1) Large distant-water freezer vessels that undertake long (months) voyages and operate over large areas of the region; and (2) smaller offshore vessels with ice or chill capacity that typically undertake trips of about one month. Target species are yellowfin, bigeye, albacore tuna, and swordfish. The total annual number of longline vessels in the western and central Pacific region has fluctuated between 3,000 and 6,000 for the last 30 years, including the 100 to 140 vessels in the Hawaii longline fisheries (NMFS 2018).

Pelagic Fisheries

International longline fisheries are characterized by inconsistent reporting and traditional gear configurations, including J-style hooks with squid bait, which result in higher interaction and mortality rates than for modified gear (Beverly and Chapman 2007; Lewison *et al.* 2004; Swimmer *et al.* 2017). For example, the Taiwan and China tuna longline fisheries are estimated to have bycatch rates several times higher than Hawaii longline fisheries (Bartram and Kaneko 2008; Chan and Pan 2012). Analyzing multi-national turtle bycatch data from 1990 to 2004, Molony (2005) found that the purse seine fishery and the deep, shallow, and albacore longline fisheries (operating between 15° N and 31° S) take an average of about 100 leatherback turtles annually. Lewison *et al.* (2004) collected fish catch data from 40 nations and turtle bycatch data from 13 international observer programs to estimate global longline bycatch of loggerhead and leatherback turtles in 2000. In the Pacific Ocean, they estimated 1,000 to 3,200 leatherback turtle (juvenile and adult) mortalities from pelagic longlining in 2000 (Lewison *et al.* 2004). Using effort data from Lewison *et al.* (2004) and bycatch data from Molony (2005), Beverly and

Chapman (2007) estimated sea turtle longline bycatch to be approximately 20 percent of that estimated by Lewison *et al.* (2004), approximately 200 to 640 leatherback turtles annually. These estimates include turtles from the East and West Pacific DPS. While the results of each of these studies may be feasible, the Lewison *et al.* 2004 estimates were based on available data at that time (*i.e.,* less than 30 percent of longline fishing effort) that was skewed toward fishing fleets with relatively better management and data reporting systems, and hence extrapolations may have overestimated interaction rates (Clarke *et. al.* 2014). However, Beverly and Chapman (2007) applied different catch per unit effort (CPUE) estimates in calculations differentiated between deep-set and shallow-set fisheries which have different interaction rates and, hence, their estimates may be more realistic.

Despite scientific evidence showing that use of circle hooks and finfish bait significantly reduces leatherback turtle bycatch rates in longline fisheries (Gilman *et al.* 2007; Swimmer *et al.* 2017), nations are not required to use this hook/bait combination. The WCPFC Sea Turtle Conservation and Management Measure (CMM 2008–03) only applies to fleets using shallow-set gear targeting swordfish. Additionally, observer program coverage levels in WCPFC longline fisheries have not reached the required five percent coverage rate, resulting in limited bycatch reporting and likely underreporting (Clarke 2017). Further, existing sea turtle mitigation measures are currently only being applied to approximately one percent of shallow-set longline fisheries in the Convention Area, even though approximately 20 percent of the longline effort consists of shallow-sets (Clarke 2017).

A workshop convened to assess the effectiveness of WCPFC's Sea Turtle Conservation and Management Measure found limited reductions in interactions and mortalities (Clarke 2017). Fishery observer data collected between 1989 and 2015 of 34 purse seine and longline fleets across the Pacific documented a total of 2,323 sea turtle interactions, of which 331 were leatherback turtles (Clarke 2017). Two bycatch hotspot areas were identified: One in central North Pacific (which likely reflects the 100 percent observer coverage in the Hawaii shallow-set longline fishery) and a second hotspot in eastern Australia (Clarke 2017). However, analysis of the data also found that overall conservation benefits would have been greater had mitigation measures also been applied to deep-set gear and not only to shallow-set swordfish fisheries (Clarke 2017).

While bycatch in pelagic shallow-set swordfish-targeting longline fisheries has received the most attention to date, comparable studies for deep-set tuna-targeting fisheries are not available due to the more complex nature of these fisheries. There may be fewer interactions because deep-set fisheries (operating at depths more than 60 m) generally have lower bycatch rates, but they also have higher mortality rates than shallow-set gear (Lewison *et al.* 2004; Kaplan 2005; Gilman *et al.* 2007). Pelagic deep-set tuna-targeting fisheries cannot be ignored because they also have the potential to interact with leatherback turtles and constitute four times greater effort than shallow-set fisheries yet do not have RFMO gear mitigation requirements (Clarke 2017).

Wallace *et al.* (2013), and a global review based on that study (FAO 2014), categorized longline and gillnet fisheries interactions with West Pacific leatherback turtles as high risk but low impact for longline and gillnet gear, likely due to insufficient data from this data-poor region. Bycatch in small-scale coastal fisheries has been a significant contributor to population declines in many regions (Kaplan 2005; Peckham *et al.* 2007; Alfaro-Shigueto *et al.* 2011), yet there is a significant lack of information from coastal and small-scale fisheries, especially from the Indian Ocean and Southeast Asian region (Lewison *et al.* 2014).

Southeast Asian Fisheries

Waters of Southeast Asia are heavily fished by a variety of gillnets, trawls, fish traps, and a range of different hook and line gears, involving hundreds of thousands of fishers (FAO 2011). The West Pacific DPS nests, migrates, and forages throughout this densely populated and heavily exploited coastal region (Bellagio Sea Turtle Conservation Initiative 2008; Benson *et al.* 2011; Lewison *et al.* 2014; Roe *et al.* 2014; Harrison *et al.* 2018).

There are few quantitative estimates of fisheries interactions near nesting beaches of this DPS, and existing reports provide only brief snapshots of impacts or are outdated. In Indonesia, between 1980 and 1993, shark gillnets off the nesting beaches of Jamursba-Medi killed two to three nesting females weekly (Tapilatu *et al.* 2013). As a member of the WCPFC and the IOTC, Indonesia must comply with reporting requirements and conservation measures as required by these RFMOs. In 2006, of the 85 sea turtle interactions observed in 539 sets on 10 tuna longline vessels, 3 were adult leatherback turtles (Zainudin *et al.* 2007). Leatherback turtles are known to migrate through and forage within Philippine waters (Benson *et al.* 2011), and in 2014, aerial surveys observed leatherback turtles foraging in high density fishing areas (130 to 381 boats; MRF 2010, 2014). Leatherback turtles have also stranded dead or injured on Philippine beaches as a result of fishery interactions, typically with gillnet gear (Bagarinao 2011; Cruz 2006; MRF 2010; MWWP 2018 unpublished). In Malaysia, bycatch studies using an interview-based approach revealed that four leatherback turtles were caught in gillnets the prior year (Pilcher *et al.* 2008).

Fisheries operating out of Australia and New Zealand may result in high bycatch and mortality rates for the winter nesting component of the DPS that migrates into the Southern Hemisphere (MacKay *et al.* 2014; Harrison *et al.* 2018). In Australia, some bycatch records exist for pelagic longline fisheries (Robins *et al.* 2002; Stobutzki *et al.* 2006), prawn trawls off Queensland and Northern Territory, gillnet fisheries off Queensland and Tasmania, and pot gear off Tasmania (Limpus 2009). Gillnet sea turtle bycatch is reported as widespread and includes anecdotal reports of leatherback turtles taken in Tasmanian tuna gillnet fisheries (Limpus 2009).

Between 2004 and 2014, the Australian shallow-set fishery had an estimated 29 to 178 leatherback interactions, based on two to 10 observations (average = 4.6 interactions) and four to 10 percent observer coverage (MacKay *et al.* 2014). These data are similar to bycatch information extrapolated from interviews with Australian fishers (Robins *et al.* 2002) which identified 162 leatherback turtles interactions in 2001 (MacKay *et al.* 2014). Australia has a sea turtle mitigation plan for its Eastern Tuna and Billfish Fishery which sets ''trigger level'' interaction rates of ≤0.0048 turtles per 1,000 hooks for each turtle species or 0.0172 turtles per 1,000 hooks overall (DAFF 2009 in Clarke *et al.* 2014). In 2013, Australia reported that the trigger levels had been exceeded for the third year in a row and as a consequence the Australian Fisheries Management Authority required that shallow-set vessels in these fisheries use large circle hooks consistent with the WCPFC sea turtle measure (CMM 2008–03; Clarke *et al.* 2014).

In New Zealand, records document 288 instances of stranding or commercial and recreational bycatch of leatherback turtles from 1892 to 2015 (Godoy *et al.* 2016). New Zealand's surface longline fishery captured 90

leatherback turtles between 2008 and 2015 (Godoy *et al.* 2016). This is likely an underestimate because data were based on low observer coverage (5.8 percent overall), with limited observer overage during the peak time of leatherback abundance in New Zealand waters (January to March). Strandings can also provide opportunities for researchers to identify fisheries interactions. MacKay *et al.* (2014) identified 19 mortalities in New Zealand and 29 mortalities in Australia. Although the cause of most strandings was often unknown, leatherback turtles have been found entangled in crab pot gear and monofilament fishing nets and ropes. Longline fishing is concentrated off southern Queensland and New South Wales, Australia and is the suspected cause of 41 percent of strandings (n = 12). In Victoria, Tasmania and South Australia, 61 percent of strandings (n = 17) involved suspected entanglement in inshore fishing gear and crab pots (MacKay *et al.* 2014).

U.S. Pacific Pelagic Fisheries

Detailed bycatch data are available for U.S.-managed pelagic fisheries operating in the central and eastern Pacific Ocean due to regulatory mandates and high levels of observer coverage. Longline fisheries, based out of Hawaii and American Samoa, may interact with foraging turtles of the West Pacific DPS. However, only two interactions involved individuals of the East Pacific DPS in 1995 and 2011 (P. Dutton, NMFS, pers. comm., 2018). Prior to 2001, the Hawaii longline fishery was estimated to capture about 110 leatherback turtles annually, resulting in approximately 9 annual mortalities (McCracken 2000). Since 2005, the fishery has reduced its estimated mortality to seven leatherback turtles annually, and data confidence increased significantly due to increased observer coverage (NMFS 2018). The fishery was closed in 2001 under court order and re-opened in 2004 as two separate fisheries: A shallow-set swordfish-targeting fishery and a deep-set tuna-targeting fishery. Management requirements include: Gear modification (*e.g.,* circle hooks and fin-fish bait) and handling measures designed to reduce sea turtle bycatch rates and post-hooking mortality in both fisheries; an annual hard-cap limit on the number of allowable interactions in the shallow-set fishery; 100 percent observer coverage in the shallow-set fishery; and 20 percent observer coverage in the deep-set fishery (50 CFR 665 (Subparts A–C); NMFS 2012, 2014, 2015). The shallow-set fishery has been closed three additional times since reopening in 2004: In 2006, after reaching the hard cap for loggerhead turtle interactions (n = 17); in 2011, after reaching the hard cap for leatherback turtle interactions (n = 16); and in 2018 under a stipulated settlement after the Ninth Circuit Court of Appeals held that NMFS' no jeopardy determination for loggerheads in the 2012 biological opinion (9th Circuit 2017) was arbitrary and capricious. *See Turtle Island Restoration Network* v. *U.S. Dep't. of Commerce,* 878 F.3d 725 (9th Cir. 2017). Since 2004, leatherback turtle interactions in the shallow-set component of the fishery have been reduced by 84 percent from 0.03 to 0.01 BPUE as a result fisheries regulations (Swimmer *et al.* 2017). Between 2004 and 2017, there have been 99 total leatherback turtle interactions in the shallow-set fishery (or approximately 8 turtles annually), based on 100 percent observer coverage (WPRFMC 2018). Between 2002 and 2016, an estimated 168 interactions may have occurred in the Hawaii deep-set fishery (or approximately 12 annually), based on an extrapolation of data collected at a level of 20 percent observer coverage (WPRFMC 2018). Observer coverage of the American Samoa longline fishery has varied over time from 5 to 40 percent and has had an estimated 59 interactions between 2010 and 2017 (WPRFMC 2018).

The U.S. tuna purse seine fishery operating in the Western and Central Pacific Ocean anticipates up to 11 leatherback turtle interactions annually (NMFS 2006). However, the fishery had fewer interactions, with approximately 16 leatherback turtle interactions between 2008 and 2015 based on observer coverage ranging from 20 to 100 percent (NMFS unpublished data).

From 1990 to 2009, there were 24 observed leatherback turtle interactions in the California drift gillnet fishery based on 15.6 percent per year observer coverage (Martin *et al.* 2015). Genetic analyses indicated that almost all originated from the West Pacific DPS (Dutton *et al.* 1999; NMFS SWFSC unpublished). In 2001, NMFS implemented regulations (*i.e.,* a large time/area closure in Central California) that reduced interactions by approximately 80 to 90 percent, with only two leatherback turtle interactions (both alive) observed based on 20 to 30 percent observer coverage since regulations were implemented (NMFS West Coast Region unpublished). Drift gillnet fishing is prohibited annually from August 15 to November 15 within the California leatherback turtle conservation area. Currently, NMFS anticipates up to 10 interactions (or 7 mortalities) over a 5-year period (NMFS 2013).

In addition, nine fixed gear fisheries operate off the U.S. West Coast, including the Federally-managed sablefish pot fishery and the state-managed California Dungeness crab fishery. Since 2008, only one leatherback interaction has been documented in the sablefish fishery (NMFS 2013). The state-managed Dungeness crab fishery may be a newly emerging threat: Two documented leatherback entanglements in pot gear (mainline or surface buoy) occurred in 2015 and 2016. Fishing effort was high, and the fishery had shifted into the Central California region, which overlaps somewhat with leatherback foraging habitat (S. Benson, NMFS, pers. comm., 2018). In 2019, the State of California settled with a non-profit organization in response to a complaint that the commercial Dungeness crab fishery was taking leatherback sea turtles (and other large whales) without authorization under section 10 of the ESA. The California Dungeness crab fishery closed in mid-April 2019 as part of the settlement agreement and again on May 15, 2020 (just the Central Management Area), due to significant risk of marine life entanglement. The northern part of California remains open until mid-July unless CDFW decides to take further management action (*i.e.,* if risks to large whales and/or leatherbacks is elevated in that area).

East Pacific Pelagic Fisheries

The West Pacific DPS has a vast trans-Pacific range. Some individuals forage in the East Pacific Ocean, where leatherback turtles are caught in fisheries of Peru and Chile (Donoso and Dutton 2010; Alfaro-Shigueto *et al.* 2007, 2011, 2018). Of 59 leatherback turtles caught in East Pacific fisheries, an estimated 15 percent of individuals sampled originated from the West Pacific DPS (Dutton *et al.* 2000; Donoso and Dutton 2010). Information compiled by IATTC on sea turtle interactions with pelagic longline fisheries operating in the East Pacific is limited, given that requirements for longline observer coverage of five percent was only implemented in January 2013 (Clarke *et al.* 2014). Additional information on East Pacific fisheries are presented in the bycatch section for the East Pacific DPS.

Summary of Fisheries Bycatch

We conclude that individuals of this DPS are exposed to high fishing effort throughout their foraging range, in coastal waters near nesting beaches, and when migrating to and from nesting

beaches, though very little fisheries data are available for coastal areas. Bycatch rates in international pelagic and coastal fisheries are high, and these fisheries have limited management regulations despite hotspots of high interactions in Southeast Asia (Lewison *et al.* 2004, 2014; Alfaro-Shigueto *et al.* 2011; Wallace *et al.* 2013; Clarke 2017). Annual interaction and mortality estimates are only available for U.S.-managed pelagic fisheries, which operate under extensive fisheries regulations that are designed to minimize the capture and mortality of endangered and threatened sea turtles (NMFS 2013; Swimmer *et al.* 2017; NMFS 2018). Mortality reduces abundance, by removing individuals from the population; it also reduces productivity, when nesting females are killed. We conclude that fisheries bycatch is a major threat to the West Pacific DPS.

Vessel Strikes

Vessel strikes are a threat to the West Pacific DPS. Between 1981 and 2016, there were 11 documented vessel strikes in central California (NMFS West Coast Region, unpublished data 2018). Many vessel strikes are not reported, and turtles are not recovered.

The range of the DPS overlaps with many high-density vessel traffic areas. Though the potential for exposure is high, we are only aware of 11 vessel strikes in recent decades. Vessel strikes resulting in mortality would lower the abundance of the DPS. However, available data does not support characterizing this as a high or moderate impact. We conclude that vessel strikes pose a threat to the DPS, albeit of less concern than other impacts such as overutilization and fisheries interactions.

Pollution

Pollution includes contaminants, marine debris, and ghost fishing gear. Leatherback turtles can ingest small debris, causing internal damage and blockage. Larger debris can entangle animals, leading to reduced mobility, starvation, and death. Given the amount of floating debris in the Pacific Ocean (Lebreton *et al.* 2018), marine debris has the potential to be a significant threat to the DPS. Presently available data do not allow for quantifying the precise extent of the threat.

Leatherback turtles feed exclusively on jellyfish and other gelatinous organisms and as a result may be prone to ingesting plastics resembling their food source (Schuyler *et al.* 2013). Lebreton *et al.* (2018) estimated plastic debris accumulation to be at least 79,000 (45,000 to 129,000) tonnes in the Great Pacific Garbage Patch, a 1.6 million km² of subtropical waters between California and Hawaii. This figure is four to 16 times greater than previously reported. Entanglement in ghost fishing gear is also a concern (Gilman *et al.* 2016), and derelict nets made up approximately 46 percent by piece, and 86 percent by weight, of debris floating in this area (Lebreton *et al.* 2018). The highest risk areas within the range of the West Pacific DPS where animals may encounter significant amounts of debris includes the north Pacific gyre, the South China Sea, and off of the east coast of Australia (Schuler *et al.* 2015). However, Wedemeyer-Strombel *et al.* (2015) found no plastics in the gastrointestinal tracts of two leatherback carcasses from American Samoan and Hawaiian longline fisheries from 1993 to 2011. Clukey *et al.* (2017) found no plastics in the gastrointestinal tracts of three leatherback carcasses from Pacific longline fisheries captured between 2012 and 2016. However, it is very difficult to obtain dead leatherback turtles to study these effects, and given the great amount of plastics within environment, such results may underestimate ingestion impacts.

Few studies of pollutants and their effect on leatherback turtles were available within the range of this DPS. Harris *et al.* (2011) found the heavy metal exposure in leatherback turtles foraging off the coast of California to be nine times higher than the St. Croix nesting population, although levels were not expected to be lethal. We do not know if there were sub-lethal effects. Stewart *et al.* (2011) found that PCBs are more likely to be transferred from females to their eggs than from the environment to eggs.

Given the large amount of marine debris within the range of the DPS, we expect exposure to be high for all life stages despite low sample sizes of leatherback turtles with ingested marine debris. Potential impacts include death and injury. However, quantitative estimates of such impacts are not available. We conclude that pollution may be a threat to the DPS.

Natural Disasters

The best available scientific and commercial data indicate that natural disasters are a threat to the DPS but do not allow the impact to be quantified. Natural disasters within the range of this DPS include: Tsunamis, typhoons, earthquakes, and flash floods. Such environmental events are periodic, with localized impacts that do not persist over time. These events may reduce nest incubation and hatching success in one season or at few locations. While leatherback turtles have undoubtedly evolved to sustain such natural impacts, the increasing frequency of environmental events as a result of a changing climate, which can affect the frequency and intensity of high tides and large storms, may hamper productivity and conservation activities (Goby *et al.* 2010; S. Benson, NMFS, pers. comm., 2018). Such events may pose additional threats by depositing marine debris on nesting beaches and in occupied waters. The 2011 Japan tsunami and the 2006 Indonesian earthquake and resulting tsunami likely deposited large amounts of debris (*i.e.,* millions of tons) into the foraging and migrating habitats of the DPS (Hafner *et al.* 2014; NOAA 2015). We conclude that natural disasters pose a potential threat to the West Pacific DPS.

Climate Change

Climate change is a threat to the West Pacific DPS. A warming climate and rising sea levels can impact leatherback turtles through changes in beach morphology, increased sand temperatures leading to a greater incidence of lethal incubation temperatures, changes in hatchling sex ratios, and the loss of nests or nesting habitat due to beach erosion (Benson *et al.* 2015).

Elevated egg incubation temperatures can lead to mortality. During the 2009/2010 nesting season at the Huon Coast (Papua New Guinea), Pilcher (2010) found higher incubation temperatures (32 to 33 °C) in exposed nests compared to shaded nests (29 to 30 °C). Sea turtles exhibit temperature-dependent sex determination. The incubation temperature determines sex ratios and the duration of incubation (*i.e.,* thermosensitive period). Along the Huon Coast, incubation duration decreased during the nesting season as beach temperatures warmed. During the 2006/2007 nesting season, nests laid in November hatched in 61.8 ± 4.2 days, and nests laid in February hatched in 55.8 ± 3.4 days (n = 171 nests; Steckenreuter *et al.* 2010). Assuming that hatchlings were male at temperatures less than 29.2 °C and female at temperatures greater than 30.5 °C, Steckenreuter *et al.* (2010) estimated that only 7.7 percent of the hatchlings were female, indicating a highly male-skewed sex ratio. However, given the Pilcher (2010) results, sex ratios are likely variable over time and space.

Climatic change may also alter rainfall levels, which may cool beaches and offset increases in sand temperature. At Wermon, the sand is black, yet beach temperatures are lower, perhaps because

peak nesting coincides with the monsoon season (Tapilatu and Tiwari 2007). Sand temperatures fluctuate between 28.6 and 34.9 °C at Jamursba-Medi and between 27.0 and 32.7 °C at Wermon (Tapilatu and Tiwari 2007). Hatching success of nests undisturbed by feral pig predation was significantly lower in Jamursba-Medi (25.5 percent) than Wermon (47.1 percent). Although there was significant variation between beaches, Tapilatu and Tiwari (2007) concluded that high sand temperatures may exceed the thermal tolerance of leatherback embryos, resulting in high embryo mortality and low hatching success at Jamursba-Medi. Further, Tapilatu and Tiwari (2007) concluded that high average sand temperatures may suggest a female-biased population at Jamursba-Medi. However, the mean incubation period of 61.5 ± 4.7 days (Tapilatu and Tiwari 2007) was similar to the length of incubation recorded in Papua New Guinea during the cooler November period, which Steckenreuter *et al.* (2010) suggested produced a male-biased sex ratio.

Tapilatu *et al.* (2013b) found that the daily average sand temperatures during the boreal summer (from 2005 to 2012) ranged from 26.5 to 34.9 °C, suggesting the production of female-biased sex ratios and potentially lower hatching success. Further, histological examination of dead hatchlings from both summer and winter nesting seasons from 2009 to 2019 produced a female-biased sex ratio, which is consistent with the relatively warm thermal profiles of the nesting beaches (Tapilatu *et al.* 2013b). Additional impacts of climate change include increased sea level rise and storm frequency, resulting in greater nest inundation and beach erosion. As sea level rises, King Tides are likely to have a greater effect on nests. Climate change may also affect prey availability. Saba *et al.* (2007, 2012) identified a correlation between the reproductive frequency of the East Pacific DPS and ENSO events. Because the West DPS also forages in the East Pacific Ocean, it too may be exposed to variability in productivity.

The threat of climate change is likely to modify the nesting and foraging conditions for turtles of the DPS. Impacts are likely to affect productivity. Negative impacts and low hatching success due to high beach temperatures and coastal erosion have already been documented and are likely to become worse, and thus we conclude that climate change is a threat to the West Pacific DPS.

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply to turtles of the West Pacific DPS (for a description of each effort, please see the section on conservation efforts for the overall species): Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (Lima Convention), Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention), Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), Eastern Pacific Leatherback Network, Eastern Tropical Pacific Marine Corridor Initiative, FAO Technical Consultation on Sea Turtle-Fishery Interactions, IAC, MARPOL, IUCN, The Memorandum of Understanding of a Tri-National Partnership between the Government of the Republic of Indonesia, the Independent State of Papua New Guinea and the Government of Solomon Islands, Ramsar Convention on Wetlands, RFMOs, Secretariat of the Pacific Regional Environment Programme, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the West Pacific DPS is at high risk of extinction. The DPS exhibits a total index of nesting female abundance of 1,277 females at two currently monitored beaches over the most recent remigration interval. These beaches may represent 75 percent of total DPS nesting activity. This abundance makes the DPS vulnerable to stochastic or catastrophic events that increase its extinction risk. This DPS exhibits low hatching success and decreasing nest and population trends due to past and current threats, which are likely to further lower abundance and increase the risk of extinction. The DPS exhibits genetic diversity and metapopulation structure, with nesting aggregations distributed throughout four nations. Nesting occurs during two seasons (winter and summer), with year-round nesting at some locations and uses multiple foraging areas, throughout the Pacific Ocean. Thus, the DPS has some resilience to stochastic events and environmental perturbations at nesting beaches and foraging areas. However, its abundance and declining trends place the DPS at risk of extinction as a result of past threats.

Current threats also contribute to the risk of extinction of this DPS. The overutilization of turtles and eggs, as a result of legal and illegal harvest, is the primary threat to this DPS, reducing abundance and productivity. Abundance and productivity are further reduced by fisheries bycatch. Juvenile and adult turtles are taken by numerous, international, coastal, and pelagic fisheries throughout the extensive, pan-Pacific foraging range of the DPS. Predation (especially by dogs and pigs) reduces productivity at high rates. Erosion and inundation result in habitat loss and modification that reduces productivity and contributes to low hatching success. Additional threats include: Pollution, vessel strikes, and natural disasters. Climate change is an increasing threat that results in reduced productivity. Though many regulatory mechanisms exist, they do not adequately reduce threats.

We conclude, consistent with the team's findings, that the West Pacific DPS is at risk of extinction. Its nesting female abundance makes the DPS highly vulnerable to threats. The declining nesting trend further contributes to its risk of extinction. While the DPS has spatial structure and diversity, the resilience provided by those factors is likely to be eroded by the reduced and declining abundance. Past egg and turtle harvest reduced the abundance and productivity of this DPS and remains a primary threat. Fisheries bycatch is also a primary threat that reduces abundance by removing mature and immature individuals from the population. Predation is also a major threat to productivity. Though numerous conservation efforts apply to this DPS, they do not adequately reduce the risk of extinction. We conclude that the West Pacific DPS is in danger of extinction throughout its range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is currently in danger of extinction (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

East Pacific DPS

The Team defined the East Pacific DPS as leatherback turtles originating from the East Pacific Ocean, north of 47° S, south of 32.531° N, east of 117.124° W, and west of the Americas. In the south, the cold waters of the Antarctic Circumpolar Current likely restrict the nesting range of this DPS. We placed the northern and western boundaries at the border between the United States and Mexico because this DPS forages primarily in the East Pacific Ocean, off the coasts of Central and South America.

The range of the DPS (*i.e.,* all documented areas of occurrence) is centered in the eastern Pacific Ocean but may include distant waters for foraging, as demonstrated by a turtle satellite-tracked to waters off the Tonga Trench and a turtle captured by the Hawaii longline fishery, genetically assigned to the population we refer to in this finding as the East Pacific DPS (P. Dutton, NMFS, pers. comm., 2018). Records indicate that the DPS occurs in the waters of the following nations: Chile; Colombia; Costa Rica; Ecuador; El Salvador; France (Clipperton Island); Guatemala, Honduras; Mexico; Nicaragua; Panama; Peru; and the United States (Hawaiian Islands) (Wallace *et al.* 2013).

Leatherback turtles of the East Pacific DPS nest primarily on beaches in Mexico, Costa Rica, and Nicaragua. In Mexico, where the largest nesting aggregations occur, nesting beaches are found in 11 states, over 7,828 kilometers as far north as Baja California Sur (Sarti 2002). The following beaches in Mexico host approximately 40 to 50 percent of total nesting for the nation: Mexiquillo (Michoacán), Tierra Colorada (Guerrero), and Cahuitán, Chacahua, and Barra de la Cruz (Oaxaca; Gaona Pineda and Barragán Rocha 2016). In Costa Rica, approximately 75 percent of nesting occurs within the Parque Nacional Marino Las Baulas (Guanacaste Province) at three nesting beaches: Playa Ventanas; Playa Grande; and Playa Langosta (based on recent abundance estimates from 2011–2015; Santidrián Tomillo *et al.* 2017). In Nicaragua, small numbers of leatherback turtles nest on Playa Salamina-Costa Grande and Veracruz de Acayo (Chacocente Wildlife Refuge) (FFI 2018). Rare nesting events have been documented in Guatemala (n = 6), El Salvador (n = 4), and Panama (n = 4), with none in Honduras (Sarti *et al.* 1999).

Generally, the nesting season starts in October and ends in March (Santidrián Tomillo *et al.* 2007; Eckert *et al.* 2012). Nesting is generally bound between 10° N and 20° N, falling within the northeast corner of the Intertropical Convergence Zone. The nesting beaches share similarly warm temperatures, moderate annual rainfall, and seasonal dynamics (Saba *et al.* 2012). In general, nesting beach habitat for leatherback turtles is associated with deep water and strong waves and oceanic currents, but shallow water with mud banks are also used by leatherback turtles. Beaches with coarse-grained sand and free of rocks, coral, or other abrasive substrates also appear to be selected by leatherback turtles (reviewed by Eckert *et al.* 2012).

Foraging areas of the East Pacific DPS include coastal and pelagic waters of the southeastern Pacific Ocean. Leatherback turtles are widely dispersed on the high seas throughout the eastern Pacific Ocean (Shillinger *et al.* 2008). They also forage in coastal areas off the coast of Peru and Chile (Alfaro-Shigueto *et al.* 2007; Eckert 1997; Donoso and Dutton 2010). Using satellite telemetry, Morreale *et al.* (1996) tracked the movements of eight post-nesting females and identified a persistent southbound migration corridor from Las Baulas National Park toward the Galapagos Islands. Eckert (1997) found a similar pattern, tracking seven post-nesting females from Mexiquillo in a similar direction; while three continued to the same foraging habitat as the Costa Rican nesting females, four shifted their movements away from the South American coast, when a strong El Niño caused a warm water anomaly. Additional tracking of 46 post-nesting females from Las Baulas National Park over a 3-year period (2004/2005 to 2006/2007) confirmed the persistent migratory corridor (Shillinger *et al.* 2008). The turtles navigated the equatorial current system, south to around 5° S latitude and negotiated the strong alternating eastward-westward flows of the equatorial current, swimming predominantly in a southward direction and moving rapidly through the productive equatorial region. They then dispersed throughout the South Pacific Gyre ecosystem, which is characterized by low phytoplanktonic biomass. The South Pacific Gyre contains ample mesoplankton forage base, as demonstrated by tuna longline fisheries effort in the eastern tropical Pacific Ocean (Shillinger *et al.* 2008). Of the 46 turtles, only one leatherback moved into coastal foraging areas, which had been documented earlier by Eckert (1997). During the course of the tracking duration, this female occupied nearshore foraging habitats along the coast of Central America, which represents highly productive areas when compared with oceanic areas. Researchers have hypothesized that high bycatch along the coastal areas of Central and South America could have extirpated a coastal migratory phenotype in this population (Saba *et al.* 2007). Recently, Harrison *et al.* (2018) determined that post-nesting females from Las Baulas National Park spent 78.2 percent of their time on the high seas, 17.8 percent of their time in Costa Rica's EEZ, and 3.7 percent of their time around the Galapagos Islands.

In summary, preferred foraging areas for the East Pacific DPS are characterized by low sea surface temperatures and high mesoscale variability. Post-nesting females migrate relatively quickly through areas that contain the strong equatorial currents as well as high chlorophyll-a concentrations, likely because of the strong currents. While swimming speed was significantly higher in areas of high chlorophyll levels, the association between these two variables was weak (Shillinger *et al.* 2008). Once past this area, they appear to forage in the southern part of their range in the South Pacific Subtropical Convergence, where there is a sharp gradient in primary production. In this area, Ekman upwelling may accelerate the transport of nutrients and consequently increase prey availability. Seasonally, leatherback turtles from the East Pacific DPS foraged at higher southerly latitudes during the austral summer (November to February), which may reflect seasonal patterns in prey abundance during higher latitudes (Bailey *et al.* 2012).

Abundance

The total index of nesting female abundance for the East Pacific DPS is 755 females. We based this total index on 13 nesting aggregations in: Mexico (Mexican Commission for Natural Protected Areas; L. Sarti, CONANP, pers. comm. 2018); Costa Rica (Santidrián Tomillo *et al.* 2017; Leatherback Trust 2018); and Nicaragua (FFI 2018). Our total index does not include several unquantified nesting aggregations in Mexico, Costa Rica, and Nicaragua. To calculate the index of nesting female abundance for nesting beaches in Mexico (*i.e.,* 572 females), we added the total number of nesting females between the 2013/2014 and 2016/2017 nesting seasons (*i.e.,* a 4-year remigration interval; L. Sarti, CONANP, pers. comm., 2018) at each beach. We performed a similar calculation for Costa Rica (n = 165 females). To

calculate the index of nesting female abundance in Nicaragua (*i.e.,* 20 females), we divided the total number of nests between the 2014/2015 and 2017/2018 nesting seasons (*i.e.,* a 4-year remigration interval; Santradián Tomillo *et al.* 2007) by the clutch frequency (7.2 clutches/season; Santradián Tomillo *et al.* 2007).

This number represents an index of nesting females for this DPS because it only includes available data from recently and consistently monitored nesting beaches. While rare or sporadic nesting may occur on other beaches, consistent and standardized monitoring only occurs at these beaches, which are for the most part protected.

Our total index of nesting female abundance is similar to published abundance estimates for this DPS. The IUCN Red List assessment estimated the total number of mature individuals (males and females) at 633 turtles, based first on dividing the average annual number of nests (n = 926) by the estimated clutch frequency (n = 7.2, Reina *et al.* 2002) to obtain an average annual number of nesting females. This value was then multiplied by the average remigration interval (n = 3.7 years, Reina *et al.* 2002; Santidrián Tomillo *et al.* 2007) to obtain a total number of adult females that included nesting as well as non-nesting turtles. In order to account for adult males, the authors assumed that the sex ratio of hatchlings produced on nesting beaches in the East Pacific (approximately 75 percent female, or 3:1 female:male ratio) reflected the natural adult sex ratio (Wallace *et al.* 2013). A more recent analysis of primary sex ratios that included multiple years of data and considered hatching success (*i.e.,* lower in hot nests) estimated primary sex ratios at Playa Grande, Costa Rica as approximately 85 percent female (Santidrián Tomillo *et al.* 2014). In Mexico, the female to male ratio is closer to 1.1:1 (A. Barragan, Kutzari, pers. comm., 2019).

In Mexico, the beaches included in our total index represent approximately 70 to 75 percent of total nesting in that nation (Gaona Pineda and Barragan Rocha 2016). However, our total index does not include nesting females from Agua Blanca (40 km in Baja California); Playa Ventura (6 km), Playa San Valentín (21 km), Piedra de Tlacoyunque (44 km in Guerrero), and La Tuza (16 km in Oaxaca) (Sarti *et al.* 2007). These beaches are not regularly monitored for nesting, which is thought to be rare or of low abundance (L. Sarti, CONANP, pers. comm., 2018).

In Costa Rica, 75 percent of nesting occurred at Las Baulas National Park (summarized *in* Santidrián Tomillo *et al.* 2017), although the recent nesting at other beaches may lower this percentage. These beaches include: Naranjo, Cabuyal, Nombre de Jesús, Ostional, and Caletas. The longest data set was provided for Naranjo, which has been intermittently covered from 1971 to 2015. Limited nesting has been documented at Playa Coyote and at Playa Caletas, which is a high energy eight kilometer beach located on the Nicoya Peninsula (Squires 1999). Given the lack of nesting events for Caletas in recent years, it may no longer host leatherback nesting, despite the fact that the Playa Caletas/Ario National Wildlife Refuge was created in 2004 to protect leatherback turtles (Gaos *et al.* 2008).

In Nicaragua, leatherback turtles nest at three beaches. Salamina Costa Grande and Veracruz de Acayo (in the Rio Escalante Chacocente Wildlife Refuge) host the most nesting and have been subject to the most consistent monitoring. Small numbers of females also nest at Juan Venado National Reserve, which is not consistently monitored (V. Gadea, FFI, personal communication, 2018).

Nesting is rare in other nations (Sarti *et al.* 1999). Nesting is very uncommon in Ecuador with one record of a female attempting to nest (according to local reports) in Atacames, a province of Esmeraldas (Salas 1981). Sarti *et al.* (1999) reported six nests at Playa Puntilla, El Salvador, but overall nesting is low and/or unknown throughout the nation. In Guatemala, nesting is rare, with reports by Sarti *et al.* (1999) recording only eight nests during an entire season, and more recently, zero to six nests per year along the Pacific coast of Guatemala (Muccio and Flores 2015). Past nesting sites included Hawai beach, La Candelaria, Taxico, Santa Rosa, and the zone adjacent to the border with El Salvador, as reported by Chacón-Chaverri (2004). Although nesting has been documented at Barqueta National Refuge, little is known about nesting in Panama (Chacón-Chaverri 2004).

Our total index of nesting female abundance (755 females) places the DPS at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). These processes, working alone or in concert, place small populations at a greater extinction risk than large populations, which are better able to absorb losses in individuals. Due to its small size, the DPS has relatively little capacity to buffer such losses. Historical abundance estimates were much greater (*e.g.,* 75,000 leatherback nesting females estimated in Pacific Mexico from a 1980 aerial survey ((Pritchard 1982). However, this estimate was derived from a brief aerial survey and may have been an overestimate (Pritchard 1996)), indicating that this population at one time had the capacity for a much larger nesting population. Therefore, the current nesting female abundance is likely an indicator of past and current threats, and given the intrinsic problems of small population size, elevates the extinction risk of this DPS.

Productivity

The East Pacific DPS exhibits a decreasing nest trend since monitoring began, with a 97.4 percent decline since the 1980s or 1990s, depending on the nesting beach (Wallace *et al.* 2013). Despite intense conservation efforts, the decline in nesting had not been reversed as of 2011 (Benson *et al.* 2015). We found a declining nest trend at some of the remaining, small nesting aggregations. Abundance at Las Baulas, Costa Rica (previously the single largest nesting aggregation) at its peak was seven times the current abundance at Playa Barra de la Cruz/Playa Grande, Mexico (currently the largest nesting aggregation). From 1988/1989 to 2015/2016, the number of nesting females at Las Baulas declined −15.5 percent annually (sd = 3.8 percent; 95 percent CI = −23.1 to −7.8 percent; f = 0.998; mean annual nests = 315).

In recent decades (after a historical decline), nest counts have increased at some beaches in Mexico. The Playa Tierra Colorada nest trend has increased by 0.6 percent annually (sd = 8.9 percent; 95 percent CI = −17.1 to 18.9 percent; f = 0.536; mean annual nests = 153) between the 1996/1997 and 2016/2017 nesting seasons. Over the same time period, nesting at Playa Barra de la Cruz/Playa Grande increased by 9.5 percent annually (sd = 8.0 percent; 95 percent CI = −6.5 to 25.8 percent; f = 0.918; mean annual nests = 122). In contrast, nest counts at Cahuitán decreased from 1997/1998 through 2016/2017, with a median trend of −4.3 percent annually (sd = 9.7 percent; 95 percent CI = −22.1 to 17.6 percent; f = 0.716; mean annual nests = 123).

We lack adequate data on nesting in Nicaragua to estimate trends.

Our trend analysis yields similar results to other published findings. The IUCN Red List assessment concluded that this subpopulation is decreasing and has declined by −97.4 percent over the past three generations (Wallace *et al.* 2013). The number of nests at Mexico nesting beaches has declined precipitously in recent decades (Benson *et al.* 2013). Historically, Mexico hosted

the largest leatherback turtle nesting aggregation in the world, with 75,000 nesting females estimated during an aerial survey in 1980 ((Pritchard 1982). However, this estimate was derived from a brief aerial survey and may have been an overestimate (Pritchard 1996)). Prior to that aerial survey, Marquez *et al.* (1981) reported that the nesting beach of San Juan Chacahua (Oaxaca) was the most important nesting site in Mexico, with approximately 2,000 females nesting each season. Researchers also identified Tierra Colorada and Mexiquillo as important nesting sites, with approximately 3,000 to 5,000 nests per season. Monitoring of the nesting assemblage at Mexiquillo has been continuous since 1982. During the mid-1980s, more than 5,000 nests per season were documented along 4 km of this nesting beach. By 1993, less than 100 nests were counted along the entire 18 km beach (Sarti 2002). According to Sarti *et al.* (1996), nesting declined at this location at an annual rate of over 22 percent from 1984 to 1995. Researchers from the National University of Mexico recorded 3,000 to 5,000 nests annually from 1982 to 1989 at primary nesting beaches, with sharp declines observed in 1993 to 1994 at the nesting sites at Mexiquillo, Tierra Colorada, Chacahua and Barra de la Cruz. These early reports were generally snapshots (*e.g.,* local unpublished data) of leatherback nesting activity in Mexico, until 1995, when a more coordinated conservation effort took shape in the form of complete nesting surveys for the entire Pacific coast of Mexico (Eckert 1997). In 1995, ''Proyecto Laud'' (Leatherback Project) was formed to estimate the population size using comprehensive surveys. In 1995 and 1996, Proyecto Laud estimated approximately 1,100 females nesting throughout Mexico; the next two seasons, they estimated between 236 and 250 nesting females, and declines continued. Currently, based on data from 2014 through 2018 (preliminary) between 100 and 250 females nest at all the protected beaches in Mexico.

In Costa Rica, the number of nesting females per season declined from 1,367 females in 1988 to 117 females in 1998 (Spotila 2000). While there were increases in the number of nesting females during the 1999/2000 season (224 females) and 2000/2001 season (397 females), the population has shown a steady decline, with less than 30 nesting females in recent years (*i.e.,* through 2016; The Leatherback Trust 2018).

In Nicaragua, 108 leatherback turtles nested on Playa Chacocente from October to December, 1980; in January 1981, 100 turtles nested in a single night on Playa El Mogote (Arauz 2002). An aerial survey of Playa El Mogote during the 1998/1999 nesting season revealed a nesting density of 0.72 turtles per kilometer (Sarti *et al.* 1999 *in* Arauz 2002). During the 2000/2001 nesting season, community members near Playa El Mogote reported that 210 leatherback nests had been deposited. That number decreased to 29 nests during the 2001/2002 nesting season (Arauz 2002). At Playa Veracruz 48 nesting females were identified between 2002 and 2010 (Urteaga *et al.* 2012). Between 2002 and 2014, Salazar *et al.* (2019) recorded 340 nests, indicating a downward trend. Considering the best available data, nesting has declined in Nicaragua.

Nesting females of the East Pacific DPS are generally smaller and produce fewer eggs per clutch than turtles from other leatherback populations (Sarti *et al.* 2007; Piedra *et al.* 2007; Santidrián Tomillo *et al.* 2007). For example in Mexico, nesting females have a mean size of 144 cm CCL and 62 eggs per clutch; the average total fecundity per females was estimated to be 341 eggs per season, with a maximum of 744 eggs deposited in a season (Sarti *et al.* 2007). The low productivity parameters, drastic reductions in overall nesting female abundance, and current declines in nesting place the DPS at risk of extinction, especially given the limited nesting female abundance.

Spatial Distribution

The DPS is characterized by somewhat continuous and low density nesting across long stretches of beaches along the coast of Mexico and Central America. Santidrián Tomillo *et al.* (2017) found a contraction of the Costa Rica's overall nesting distribution since the 1990s.

The best available genetic data indicate a high degree of connectivity among nesting aggregations. Dutton *et al.* (1999) did not find any genetic differentiation between nesting populations in Mexico (Playa Mexiquillo) and Costa Rica (Playa Grande) based on analysis of mtDNA control region sequences. Additional analyses of mtDNA sequences and nuclear DNA (microsatellites) from three index nesting beaches in Mexico also failed to find genetic differentiation (Barragan and Dutton 2000; Dutton *et al.* unpublished).

Based on monitoring of tagged nesting females, researchers documented female interchange between nesting beaches within Mexico and within Costa Rica. However, only one interchange has been documented between Mexico and Costa Rica (Sarti *et al.* 2007). Interchange between nesting beaches may occur during or between nesting seasons and may depend on the distance between nesting sites, which can be fairly large, especially in Mexico. For example, the distance between Tierra Colorada and Cahuitán is 25 kilometers, and up to 18.7 percent of nesting females visit both beaches within a season (average of nine percent). Mexiquillo is located approximately 475 kilometers from the closest other nesting beach (Tierra Colorada), and researchers found no interchange of females within seasons. However, a few females were found to nest in either Mexiquillo and/or Tierra Colorado between seasons (Sarti *et al.* 2007).

In Costa Rica, nesting females move among the three nesting beaches of Las Baulas National Park, within and between seasons, particularly between Playa Grande and Playa Langosta, although researchers study both Playa Grande and Playa Ventanas in combination. According to data gathered over 10 years of research (mid 1990s through the mid-2000s), an average of 71 percent of females nested only on Playa Grande, 10 percent nested only on Playa Langosta, and 18 percent nested on both beaches in a given season. In other seasons, females have been shown to shift and nest primarily on a different beach. Within two seasons, 82 percent of nesting females at Playa Langosta also nested at Playa Grande and 100 percent of nesting females at Playa Langosta within three seasons occasionally also nested at Playa Grande (Santidrián Tomillo *et al.* 2007). At the less abundant nesting beaches in Costa Rica, the exchange rate between females ranged between 7 and 28 percent. For example, at Ostional, 12 out of the 43 identified females were observed at least once at other sites (28 percent), while at Naranjo, 4 out of 21 identified females were also observed at other beaches (19 percent). At Cabuyal, 2 out of 15 turtles were observed at other beaches (13 percent), while 1 out of 15 females at Caletas were observed elsewhere (7 percent) (Santidrián Tomillo *et al.* 2017).

The foraging range of the DPS extends into coastal and pelagic waters of the southeastern Pacific Ocean. Individuals forage in the Pacific Gyre ecosystem and along the coasts of Peru and Chile, with variation resulting from the location of upwelling and ENSO effects. Researchers have hypothesized that high bycatch along the coastal foraging phenotype in this population (Saba *et al.* 2007). Recently, Harrison *et al.* (2018) determined that post-nesting females from Las Baulas National Park spent 78.2 percent of their time on the

high seas, 17.8 percent of their time in Costa Rica's EEZ, and 3.7 percent of their time around the Galapagos Islands.

Multiple nesting and foraging distributions likely help to buffer the DPS against local catastrophes or environmental changes that would otherwise modify nesting habitat or limit prey availability. Nesting aggregations are largely connected. However, there is less exchange among distant nesting beaches. Foraging turtles are vulnerable to perturbations in ocean conditions due to climate change, ENSO, and the Pacific Decadal Oscillation.

Diversity

The East Pacific DPS exhibits genetic diversity, as demonstrated by moderate to high mtDNA haplotypic diversity (h = 0.66–0.71; Dutton *et al.* 1999). Such diversity likely provides the DPS with some capacity for adapting to long-term environmental changes, such as cyclic or directional changes in ocean environments due to natural and human causes (McElhany *et al.* 2000; NMFS 2017). Nesting habitat is mainly restricted to mainland beaches along the same coast. The DPS does not exhibit temporal or seasonal nesting diversity, with most nesting occurring between October and March. This limits resilience. For example, short-term spatial and temporal changes in the environment are likely to affect all nesting females in a particular year. The foraging strategies are somewhat diverse, with turtles foraging in coastal and oceanic waters. However, most turtles forage in the East Pacific Ocean, where they are similarly exposed to the effects of climate change, ENSO, or the Pacific Decadal Oscillation. Thus, the DPS has limited resilience.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

The destruction or modification of habitat is a threat at many nesting beaches used by turtles of the East Pacific DPS. Foraging habitat has also been characterized as marginal, particularly in the eastern tropical Pacific Ocean (pelagic environment) due to relatively low productivity. Coastal habitat, which is normally associated with high productivity, may have been marginalized due to high levels of interactions with coastal artisanal fisheries.

Development threatens the DPS by modifying the preferred beach habitat for nesting. Sustained and substantial development along the northern and southern ends of the nesting beach at Playa Grande in Las Baulas National Park, and in adjacent areas, has resulted in the loss of nesting beach habitat in addition to the removal of much of the natural beach vegetation. As a result, erosion has increased and led to other environmental damages to sand that are associated with human development, including significant changes to elevation, water content, particle size, pH, salinity, organic content and calcium carbonate content (Clune and Paladino 2008). Within the past two decades, beachfront development in the town of Tamarindo (across Tamarindo Bay from Playa Grande) has resulted in the degradation of nesting beach habitat, including: Pollution from artificial light, solid and chemical wastes, beach erosion, unsustainable water consumption, and deforestation. Hotels in this area have replaced a significant leatherback nesting area at Playa Tamarindo, which hosted significant nesting in the 1970s and 1980s (Wallace and Piedra 2012). Playa Langosta, which is just across from Tamarindo, is inundated with lights and noise from the town (Wallace and Piedra 2012). Currently, development has been curtailed due mainly to water issues (*i.e.,* drought). Any additional development would damage the current hydrology. The Leatherback Trust, a local nonprofit working at Las Baulas National Park, has acquired some properties to prevent development, but property costs have increased over time. At Las Baulas National Park, 10 percent of nests were being inundated by tidal flows. To mitigate this threat, nests at risk of tidal inundation were relocated to another site on the same beach or into a hatchery. Hatchling production slightly increased due to the establishment of the hatchery, where approximately two percent of hatchlings were produced from 1998 to 2004 (Santidrián Tomillo *et al.* 2007). We conclude that coastal development in Costa Rica is a threat to this DPS.

In Mexico, the extent of development near nesting beaches is generally low, given the remoteness of the beaches in Baja California and on the mainland. Reviewing the location of these nesting beaches, we found very few roads or development nearby. The main nesting beaches remain somewhat isolated, with very few roads or development adjacent to the nesting beaches. Thus, there is limited threat due to artificial lighting and generally little to no beach driving except perhaps that associated with monitoring efforts (L. Sarti, CONANP, pers. comm., 2018). In 2002, the Commission for Natural Protected Areas designated two of the index beaches (Mexiquillo and Tierra Colorada) as natural protected areas (turtle sanctuaries), which helped protect nesting habitat. Subsequently, in 2003, three of the index beaches (Mexiquillo, Tierra Colorada, and Cahuitán) were listed as Ramsar Sites, which are wetland sites designated to be of international importance under the Ramsar Convention.

At Veracruz de Acayo beach in Nicaragua, Salazar *et al.* (2019) note that while conservation efforts has reduced the threat of poaching, the establishment of tourism-focused coastal development that do not comply with the existence of management plans could threaten the nesting habitat.

While nesting beaches within this DPS are generally remote and/or protected due to monitoring and existence of national parks and wildlife refuges, nesting females, hatchlings, and eggs at Las Baulas National Park (Costa Rica) nesting beaches are exposed to the modification of nesting habitat, as a result of development. This threat impacts the DPS by reducing nesting and hatching success, thus lowering the productivity of the DPS. We conclude that habitat loss and modification is a threat to the East Pacific DPS.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The harvest of nesting females and eggs was the primary cause of the historical decline in abundance of the East Pacific DPS. Since then, laws have been passed to protect eggs and turtles. However, poaching still occurs.

In Mexico, Sarti *et al.* (2007) attributed the decline of nesting females to the killing of adult females and intensive egg harvest. Adult females were historically killed at nesting beaches and in open waters (Sarti *et al.* 1994; Sarti *et al.* 1998). Since 1990, the harvest of turtles and eggs has been prohibited by national legislation. However, poaching pressure remains high wherever beach patrols do not occur (Santidrián Tomillo *et al.* 2017). For example, Mexiquillo produced hatchlings every season in the 1980s. However, even with efforts to protect the nests in place, 60 to 70 percent of the total number of clutches were poached. Nichols (2003) notes that leatherback turtles were once harvested off Baja California, but their meat is now considered inferior for human consumption. At present, leatherback turtles are not generally captured for their meat or skin, but the poaching of nesting females has been known to occur on beaches such as Piedra de Tlacoyunque, Guerrero (Sarti *et al.* 2000).

Although poaching of turtles and eggs has been consistently reduced over the years, it still occurs at high levels. Effective conservation and protection depends on human presence at the nesting beaches (Santidrián Tomillo *et al.* 2017). Without such protection, poaching is likely to escalate. This may have occurred at one of the primary nesting beaches (Mexiquillo), where monitoring and conservation has not taken place in recent years due to safety concerns (L. Sarti, CONANP, pers. comm., 2018). Since the mid-1990s, Proyecto Laúd has been relocating clutches (usually within 1–2 hours of deposition) to protected fenced areas and releasing hatchlings in different areas of the beach. These efforts are intended to protect the eggs from poachers/predators and the hatchlings from predators (Sarti *et al.* 2007).

In Costa Rica, the population decline was predominantly caused by egg harvest. Ninety percent of eggs were collected on one of the major nesting beaches, Playa Grande, a decade or more prior to the reduction of nesting females (Santidrián Tomillo *et al.* 2007). In the 1950s, there were few nesting females at Playa Grande (Wallace and Piedra 2012). In the late 1960s and early 1970s, the number of nesting turtles increased to more than 100 nesting females nightly (Wallace and Piedra 2012). In the early 1970s, newly constructed roads provided access to people from distant villages and cities, and egg harvest increased to more than 90 percent by the late 1970s (Wallace and Piedra 2012). Such high levels of egg harvest persisted for nearly two decades (Wallace and Saba 2009). Despite protection of nesting beaches at Las Baulas National Park, illegal poaching of eggs still occurs, though rarely. The black market for eggs remains strong; local bars throughout Guanacaste and elsewhere continue to offer shots of raw sea turtle egg yolks accompanying beer or liquor (Wallace and Piedra 2012).

In 1991, the Parque Nacional Marino Las Baulas was created and subsequently ratified by law in 1995. The Park consists of three leatherback nesting beaches: Playa Grande, Playa Ventanas, and Playa Langosta. The establishment of the park ensured increased protection at all three nesting beaches, greatly reducing egg poaching in the area. Poaching of eggs was reduced from 90 percent prior to 1990/1991, to 50 percent in 1990/1991, 25 percent in 1991 through 1993, and near 0 percent in 1993/1994 (Santridián Tomillo *et al.* 2007). To mitigate poaching, nests are often relocated. However, relocation may reduce hatching success (reviewed in Hernández *et al.* 2007; Eckert *et al.* 2012). In Playa Grande, Costa Rica, fewer females were produced in translocated nests; cooler nests due to a lower number of metabolizing embryos may have reduced hatchling success (Sieg *et al.* 2011).

In Nicaragua, prior to protection in the early 2000s, poachers took nearly 100 percent of the nests at the three nesting beaches. Nesting beach protection has occurred at Veracruz since 2002, Juan Venado since 2004, and Salamina since 2008. An average of ten community team members (mostly ex-poachers) monitor beaches seasonally. From 2002 to 2010, up to 420 nests were recorded and an estimated 94 were protected (Urteaga *et al.* 2012). While Veracruz de Acayo and Salamina are protected at 100 percent, Isla Juan Venado is not permanently monitored. Therefore, poaching is likely to occur. Poaching occurs at high levels at other beaches, such as Playa El Mogote. During the 2001/2002 nesting season, 23 of 29 nests were poached (79 percent), and the remaining six nests were protected in a hatchery (Arauz 2002). Due to the high level of poaching in this area, when possible, researchers from Flora & Fauna International relocated 98 nests between 2002 and 2004. However, these nests had a low emergence rate (22 percent; Urteaga and Chacón 2008).

Extensive and prolonged effects of comprehensive egg harvest have depleted the leatherback population in Costa Rica and Mexico, with egg harvest levels of nearly 90 percent for about two decades (Sarti *et al.* 2007; Santidrián Tomillo *et al.* 2008; Wallace and Saba 2009). Currently, nesting females and eggs of the East Pacific DPS are exposed to poaching. Though efforts have reduced the levels of poaching of both eggs and nesting turtles, egg poaching remains high and affects a large proportion of the DPS. Poaching of nesting females reduces both abundance (through loss of nesting females) and productivity (through loss of reproductive potential). Such impacts are high because they directly remove the most productive individuals from DPS, reducing current and/or future reproductive potential. Egg harvest reduces productivity only, but over a long period of time, this also reduces recruitment and thus abundance. Given the high exposure and impacts, we conclude that overutilization, as a result of poaching, poses a major threat to the DPS.

Disease or Predation

Little is known about diseases and parasites in leatherback turtles, although fibropapillomatosis has been described as a major epizootic disease in hard shelled turtles. A fibropapilloma tumor (in regression) was found on one nesting female at Mexiquillo, Mexico in 1997 (Huerta *et al.* 2002). Various bacteria have also been documented in leatherback eggs. Soslau *et al.* (2011) sampled eggs laid on a Costa Rican beach to determine if bacteria were contributing to the low hatching rate (50 percent). The bacteria identified (*i.e.,* species of the *Bacillus, Pseudomonas,* and *Aeromonas* genera) are known pathogens to humans and may account for developmental arrest of the turtle embryo (Soslau *et al.* 2011).

Numerous predators prey on East Pacific leatherback turtles throughout their life stages. Eggs and hatchlings are eaten by crabs, ants, birds, reptiles, mammals, and fish (Eckert *et al.* 2012). In Costa Rica, during the 1993/1994 nesting season, several nests were lost to predation and infestation by maggots (Schwandt *et al.* 1996). In the Nicoya Peninsula, on the Pacific coast of Costa Rica, Squires (1999) documented evidence of potential nest predation by dogs, coyote, and raccoon. Predation of hatchlings by dogs and raccoons has increased in Playa Grande due to an increase in development in the area (P. Santridián Tomillo, The Leatherback Trust, pers. comm., 2019).

For adult turtles, principal predators at sea include killer whales, crocodiles (Pritchard 1981), and sharks, while nesting females are taken by crocodiles (Bedding and Lockhart 1989), tigers, and jaguars (Pritchard 1971). Sarti *et al.* (1994) observed a lone male killer whale feeding on a single gravid female near Michoacán, Mexico, apparently consuming only certain parts of the turtle and discarding others (*e.g.,* female reproductive organs). In summary, eggs, hatchlings, and some adults are exposed to predation. For this DPS, the primary impact is to productivity (*i.e.,* reduced egg and hatching success). Predation on nesting females, while rare, reduces abundance and productivity. Nest predation is mitigated through screening of nests, relocation of nests to hatcheries and releasing hatchlings in safer areas of the beach, and protecting nesting females from large predators such as dogs and jaguars (Sarti *et al.* 2007); some of these efforts are funded through the MTCA. We conclude that predation is a threat to the East Pacific DPS.

Inadequacy of Existing Regulatory Mechanisms

Several international regulatory mechanisms apply to turtles in this DPS. The IAC, in particular, prohibits the harvest of turtles and eggs. CITES

limits all international trade of the species. There are also international efforts to reduce fisheries bycatch.

In 2015, at the 7th Conference of the Parties, the IAC resolved to prioritize conservation actions in their work programs that would help ''reverse the critical situation of the leatherback sea turtle in the Eastern Pacific.'' Specifically, parties were urged to: (1) Submit leatherback bycatch information annually to the IAC Secretariat; (2) improve leatherback turtle fishery monitoring efforts through the use of on-board observers; (3) report annually on the measures they have taken to reduce leatherback bycatch in their fisheries; (4) enhance leatherback nest monitoring and protection to increase hatchling survival and protect nesting beach habitat; (5) foster safe handling and release of incidentally bycaught leatherback turtles in fisheries; and (6) agree to a five-year strategic plan containing key activities related to the resolution (CIT–COP7–2015–R2). The strategic plan was patterned after the Regional Action Plan for Reversing the Decline of the Eastern Pacific Leatherback (*http://savepacificleatherbackturtles.org*) and included measures to reduce fisheries bycatch of adult and subadult leatherback turtles, the identification of high risk areas with fisheries and leatherback turtles, the identification and protection of important areas for leatherback turtle survival in different life stages, the elimination of any consumption and illegal use of leatherback turtles, and nesting site protection.

As mandated by the 1994 *North American Agreement for Environmental Cooperation,* the Commission for Environmental Cooperation (CEC) encourages Canada, the United States, and Mexico to adopt a continental approach to the conservation of flora and fauna. In 2003, this mandate was strengthened as the three North American nations launched the *Strategic Plan for North American Cooperation in the Conservation of Biodiversity.* The North American Conservation Action Plan (NACAP) initiative began as an effort promoted by the three nations, through the CEC, to facilitate the conservation of marine and terrestrial species of common concern. In 2005, the CEC supported the development of a NACAP for Pacific leatherback turtles by Canada, the United States, and Mexico. Identified actions in the plan addressed three main objectives: (1) Protection and management of nesting beaches and females; (2) reducing mortalities from bycatch throughout the Pacific Basin; and (3) waste management, control of pollution, and disposal of debris at sea.

In 2015, the Eastern Pacific Leatherback Network (also known as La Red de la Tortuga Laúd del Océano Pacifico (Red Laúd OPO) (*www.savepacificleatherbacks.org*)) was formed to address the critical need for regional coordination of East Pacific leatherback conservation actions to track conservation priorities and progress at the population level. This network has brought together conservationists, researchers, practitioners and government representatives from 22 institutions across nine East Pacific nations with varying priorities, capacities and historical experiences in leatherback research and conservation to contribute to shared activities, projects, and goals. Through these efforts, Red Laúd OPO now has mutually-agreed upon mechanisms for sharing information and data, as well as standardized protocols for nesting beach monitoring and bycatch assessments/fishing practices.

The Convention for the Protection of Natural Resources and Environment of the South Pacific, also known as the Noumea Convention, has been in force since 1990 and includes 26 Parties (as of 2013). The purpose of the Convention is to protect the marine environment and coastal zones of the South-East Pacific, and beyond that area, the high seas up to a distance within which pollution of the high seas may affect that area.

In 2015, the IATTC passed a resolution that requires large longline vessels fishing in the eastern tropical Pacific Ocean to carry observers. Cooperating parties that have documented interactions with sea turtles in their longline fleet are required to maintain at least five percent observer coverage and provide an annual report to the IATTC. Unfortunately, the forms used by observers to report incidents are not standardized, so in some cases, the reports did not include species identification, condition of the released turtles, and location of the interactions, and the five percent minimum coverage is often not met. Nations without reported bycatch of sea turtles simply provided a statement to that effect. In the few reports we reviewed, leatherback turtles comprised some of the bycatch in the eastern tropical Pacific Ocean, but there were few details on the events (C. Fahy, NMFS, pers. comm., 2018). In 2007, the IATTC passed a resolution requiring nations to conduct research on sea turtle bycatch reduction measures in their longline fleets (*e.g.,* use of circle hooks and fish bait). Despite results in both the Atlantic and Pacific longline fleets showing that use of circle hooks/fish bait significantly reduced leatherback bycatch rates (Swimmer *et al.* 2017), nations are not required to use this hook/bait combination. In 2017, at an IATTC sea turtle bycatch reduction workshop, the United States presented findings on longline bycatch reduction and proposed a stronger resolution that would require use of this methodology. However, some nations resisted, and the resolution did not move forward for consideration at the annual IATTC meeting.

Throughout the world, illegal, unreported, and unregulated (IUU) fishing leads to underestimates of bycatch. In Mexico, there is a lack of effective fisheries governance, resulting in highly uncertain fishery statistics. For example, from 1950 to 2010, total fisheries catch, including estimated IUU catch and discarded bycatch, was nearly twice as high as the official statistics (Cisneros-Montemayor *et al.* 2013). Thus, the bycatch threat of commercial fisheries in Mexico may be higher than currently estimated.

In addition, several international treaties and/or regulatory mechanisms protect East Pacific leatherback turtles. While no single law or treaty can be 100 percent effective at minimizing anthropogenic impacts to sea turtles in these areas, there are several international conservation agreements and laws in the region that, when taken together, provide a framework within which sea turtle conservation advances can be made (Frazier 2012). In addition to protection provided by local marine reserves throughout the region, sea turtles may benefit from the following broader regional effort: (1) The Eastern Tropical Pacific (ETP) Marine Corridor (CMAR) Initiative supported by the governments of Costa Rica, Panama, Colombia, and Ecuador, which is a voluntary agreement to work towards sustainable use and conservation of marine resources in these nations' waters; (2) the ETP Seascape Program managed by Conservation International that supports cooperative marine management in the ETP, including implementation of the CMAR; (3) the IATTC and its bycatch reduction efforts through resolutions on sea turtles, observer coverage, *etc.;* (4) the IAC, which is designed to lessen impacts on sea turtles from fisheries and other human impacts; and (5) the Permanent Commission of the South Pacific (Lima Convention), which has developed an *Action Plan for Sea Turtles in the Southeast Pacific.*

Most nations within the range of the East Pacific DPS have laws prohibiting the harvest of turtles and eggs. This applies to nesting turtles and those captured at sea. National laws in Mexico (1990 Presidential Decree), Costa Rica (2002 Presidential Decree N°8325: The Law of Protection, Conservation, and Recuperation of Marine Turtles), and Nicaragua (Law No. 651 and Ministrial Resolution No. 043–2005) protect nesting females and eggs and nesting beaches. However, poaching remains a major threat. Although laws prohibit the harvest of turtles in Peru, fishermen consume leatherback turtles bycaught in small-scale fisheries (Alfaro-Shigueto *et al.* 2011), indicating inadequate enforcement of existing laws. In other nations where leatherback turtles of this DPS are bycaught, the turtles are released and not retained (*e.g.,* Chile; Donoso and Dutton 2010).

Several protected areas have been established throughout the range of the DPS. Most of the nesting beaches in Mexico and Costa Rica are protected from egg and turtle poaching, with effective monitoring to ensure low levels of poaching. Poaching likely continues at unprotected and remote beaches, and at those that contain an extensive coastline that is difficult to monitor and protect. Protected nesting beaches in Mexico include: Mexiquillo (until 2013); Playa de Tierra Colorada, Playa Cahuitán, Playa San Juan, Bahia de Chacahua, and Playa Barra de la Cruz. Protected nesting beaches in Costa Rica include: Las Baulas National Park (Playa Grande, Playa Langosta, and Playa Ventanas), Naranjo (National Park), Cabuyal (under no official management category), Nombre De Jesús (under no official management category), Ostional (wildlife refuge), and Caletas (wildlife refuge). Protected nesting beaches in Nicaragua include: Salamina-Costa Grande, Veracruz de Acayo (Chacocente Wildlife Refuge).

Marine protected areas also exist. The waters of the Las Baulas National Park, which represents a hotspot for inter-nesting females and breeding males, are protected out to 22.2 km as a no-take zone for all fishing activity. However, satellite telemetry data for nesting females at these beaches over three seasons revealed that the turtles move well outside these boundaries during their inter-nesting period, which makes them vulnerable to fisheries outside the park (Shillinger *et al.* 2010). Data from 44 females that were tagged off Las Baulas National Park revealed a high use habitat within 6 nm from the nesting beaches, but overall revealed a generally large range, covering over 33,000 km^2, from the Nicoya Peninsula, east into the Gulf of Nicoya in Costa Rica, and north to coastal habitats within 30 kilometers offshore from southern Nicaragua. The marine areas adjacent to this protected boundary are not managed under any type of status (Shillinger *et al.* 2010). Fisheries within Costa Rica and Nicaragua's EEZ include trawl, gillnet and longline that continue to operate.

In summary, numerous regulatory mechanisms exist to protect leatherback turtles, eggs, and nesting habitat throughout the range of this DPS. Although the regulatory mechanisms provide some protection to the species, many do not adequately reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. As a result, bycatch, incomplete nesting habitat protection, and poaching remain threats to the DPS. We conclude that the inadequacy of existing regulatory mechanisms is a threat to the East Pacific DPS.

Fisheries Bycatch

Bycatch in commercial and recreational fisheries, both on the high seas and off the coasts, is the primary threat to the East Pacific DPS. This threat affects the DPS by reducing the abundance of all life stages of the DPS (with the likely exception of hatchlings).

Integrating catch data from over 40 nations and bycatch data from 13 international observer programs, Lewison *et al.* (2004) estimated the numbers of leatherback turtles taken globally by pelagic longliners to be more than 50,000 leatherback turtles in just one year (2000). With over half of the total fishing effort (targeting tuna and swordfish) occurring in the Pacific Ocean, an estimated 20,000 to 40,000 leatherback turtles interacted with longline fishing during the year studied. Fishing effort was highest in the central South Pacific Ocean (south of Hawaii), which overlaps with the foraging range of this DPS. Because observers are in place on only a fraction of longline vessels in the eastern tropical Pacific Ocean, and a requirement came into effect only recently through an IATTC resolution, these estimates are likely a minimum. More recently, Molony (2005) and Beverly and Chapman (2007) estimated sea turtle longline bycatch to be approximately 20 percent of that estimated by Lewison *et al.* (2004), or approximately 200 to 640 leatherback turtles annually. Where tuna species are targeted, bycatch of turtles in the deep-set longline gear often results in mortality due to drowning. Additional studies indicate the high impact of industrial longline fleets on leatherback turtles (*e.g.,* Spotila *et al.* 1996, 2000).

In their global study of sea turtle bycatch, where available, Wallace *et al.* (2013) found that longline bycatch had a low impact, but that net bycatch had a high impact on the East Pacific RMU. The impact of local artisanal fleets (using gillnets and longlines) that fish closer to shore is less documented.

In Mexico, leatherback turtles wash to shore entangled in longlines and driftnet, indicating interaction and mortality (Sarti *et al.* 2007). Ortiz-Alvarez *et al.* (2019) conducted a bycatch survey across 48 different ports (933 fishers) in Mexico, Nicaragua and Costa Rica between October 2016 and July 2017 in an effort to improve the understanding of leatherback bycatch in artisanal fisheries, particularly where data are lacking. The surveys represented on average over 30 percent of the fishing fleet per port for both Nicaragua and Costa Rica and 6 percent per port for Mexico. In Mexico, where gillnets were the most frequently reported gear, fishers (n = 709) reported an estimated bycatch of 300 leatherback turtles in the previous year, with 65 percent in ''good condition;'' 76 percent of fishers released turtles alive (three percent consumed or sold the turtles). Estimated average bycatch rates per vessel were 1.0 for Costa Rica and Nicaragua and 2.3 for Mexico. In Costa Rica, leatherback turtles were primarily caught in longlines and released alive; 75 percent of the Costa Rican fishermen reported that bycaught leatherback turtles were in ''good condition.'' In Nicaragua, where gillnets were the most frequently reported gear, 18 percent of fishers reported that leatherback turtles were in ''good condition;'' 76 percent of fishers released turtles alive (six percent consumed or sold the turtles; Ortiz-Alvarez *et al.* (2019).

Recent surveys of 765 Ecuadorian, Peruvian, and Chilean fishermen (at 43 ports, representing 28 to 63 percent of ports) reported the following leatherback interaction rates (as a percentage of total interactions with sea turtles): 2.81 percent of 40,480 interactions (32.5 percent mortality) in Ecuador, 14.87 of 5,828 interactions (50.8 percent mortality) in Peru, and 27.83 percent of 170 interactions (3.2 percent mortality) in Chile (Alfaro-Shigueto *et al.* 2018). Mortality rates reported for all sea turtles were 3.2 percent in Chile, 32.5 percent in Ecuador, and 50.8 percent in Peru (Alfaro-Shigueto *et al* 2018).

The swordfish gillnet fisheries in Peru and Chile may have contributed to the decline of the DPS. The decline in the nesting population at Mexiquillo

occurred at the same time that effort doubled in the Chilean driftnet fishery (Eckert 1997). Using data collected from Frazier and Montero (1990) regarding leatherback takes in a swordfish gillnet fishery from one port in Chile (San Antonio), and extrapolating to other ports in Chile and Peru, with an increased level of effort observed through the mid-1990s, Eckert (2007) estimated that a minimum of 2,000 leatherback turtles were killed annually by the combined swordfish fishing operations (only gillnet) off Peru and Chile. After some fleets switched from large mesh gillnet to longline to target swordfish, this estimate has declined by at least an order in magnitude. Research conducted in the Chilean large-mesh gillnet fishery to reduce bycatch of marine mammals and sea turtles indicates that less than five leatherback turtles have interacted with the fishery (on observed vessels) since 2014, and all were released alive (C. Fahy, NMFS, pers. comm., 2018).

In Peru, the capture of leatherback turtles has been prohibited since 1976, although retention of bycaught leatherback turtles continues (FAO 2004). From 1985 to 1999, based on field books, diaries, specimen data sheets, fishery statistics files and unpublished reports, 30 leatherback turtles were captured in fisheries (*in* Alfaro-Shigueto *et al.* 2007). From July 2000 to November 2003, observers at 8 ports, from Mancora in northern Peru to Morro Sama in the south, reported 133 leatherback turtles caught by artisanal fishing gear, with 76 percent caught in gillnets and 24 percent caught in longlines targeting fish, sharks, and rays (Alfaro-Shigueto *et al.* 2007). Of the total caught, 41.4 percent (n = 55) were released alive and 58.6 percent (n = 78) were retained for human consumption. Of the leatherback turtles retained and measured (n = 6), the size ranged from 98 to 123 cm curved carapace length (CCL), indicating that both subadults and adults are encountered by artisanal fisheries off Peru. Researchers recently assessed and quantified sea turtle mortality levels in one fishing village in central-southern Peru (San Andrés) through sampling dump sites (97.3 percent) and strandings (2.7 percent) over a 5-year period (2009 to 2014). Of 953 carapaces recorded, leatherbacks comprised only 1.4 percent of sea turtles (n = 13). However, this study still confirmed that they were consumed or sold for human consumption. With a mean CCL of 113.0 cm (range: 80 to 135, n = 10), 70 percent of the leatherbacks were juveniles and 30 percent were sub-adults. There were no adults. Researchers noted that the meat was used to support separate demands: Fishermen families' consumption, local trade, and ''special'' orders from Lima (Quispe *et al.* 2019). Using data from shore-based and on-board observers, Alfaro-Shigueto *et al.* (2011) estimated the mean annual leatherback bycatch as follows: 40 turtles (with a range of 37 to 44) in the driftnet fishery, with 80 percent released alive; six turtles (with a range of 3 to 9) in the dolphinfish longline fishery, all released alive; and 26 turtles (with a range of 24 to 27) in the shark longline fishery, all released alive. Alfaro-Shigueto *et al.* (2015) assessed the bycatch of leatherback turtles in driftnet vessels in northern Peru (through at-sea monitoring) and central Peru (shore-based monitoring). From December 2013 to November 2014, 31 leatherback turtles were captured, of which 13 died. Interactions occurred primarily with juveniles and subadults (mean CCL was 125.1 ± 14.8). Nearshore driftnets from San Jose (northern Peru) captured 20 leatherback turtles (five dead). At least one animal was butchered, indicating that even animals caught alive may be killed, despite Peruvian laws restricting such practices. Approximately 3,000 net vessels fish along the coast of Peru, but only a fraction were included in this study (Alfaro-Shigueto *et al.* 2015). Efforts are being made to patrol nets to reduce bycatch, conduct extensive education and outreach, and increase regulation and enforcement (Alfaro-Shigueto *et al.* 2015). A review of information collected from official statistics, literature, and surveys of beaches and dumpsites revealed that the size of captured leatherback turtles declined over the years. In 1987, the mean CCL of captured leatherback turtles was 117 ± 10.65 cm, while in 2005, the mean CCL was 109.27 ± 14.4, possibly indicating overexploitation due to systematic and sustained harvests, particularly during El Niño years (Campos *et al.* 2009). Greater captures of all sea turtles, including leatherback turtles, occurred during periods of El Niño, when turtles are more likely to be found in more coastal waters (where there is increased artisanal fishery activity) due to environmental variability and availability of jellyfish in those areas (Campos *et al.* 2009).

In Chile, a commercial fishery was established in 2001 that permitted longlining for swordfish (shallow-set) with the condition that all vessels were required to take an observer on board to collect information on bycatch. Between 2001 and 2005, over 10 million hooks were observed, and leatherback turtles were the most common species caught (n = 284), with the majority (n = 282) released alive. Leatherback turtles were caught primarily between 24° S and 38° S (furthest south was 38°39′ S and 84°15′ W) in less than 4 percent of the sets with an overall mean of 0.0268 turtles per one thousand hooks. Size estimates revealed both juveniles and adults. Fishermen were trained to use the best practices for de-hooking, disentangling, and releasing sea turtles, which likely increased the survival rate of leatherback turtles (Donoso and Dutton 2010). Researchers recently presented information on the incidental capture of sea turtles in industrial and artisanal longlines, gillnets and artisanal espinel (*i.e.,* small-scale handline or longline) fisheries all targeting swordfish off Chile (Zárate *et al.* 2019). Over an 8-year period (2006–2014), 182 leatherbacks were documented as bycatch (mortality of bycaught turtles was not reported). Over this study period, 44 percent of turtles were caught in industrial longline, 28 percent in artisanal espinel, 17 percent in gillnets and 11 percent in artisanal longline (with sea turtle species undefined). Researchers noted that while observer coverage in the industrial longline fleet has been generally high (>70 percent of total fishing trips), the monitoring coverage of artisanal espinel and gillnets is very low (<3 percent). Thus, these estimates of bycatch can be considered minimal. While the number of industrial and artisanal vessels has declined (from 12 vessels in 2001 to 3 vessels in 2014, the number of artisanal espinel and gillnet vessels has not declined, remaining around 90 vessels (Zárate *et al.* 2019).

We conclude that juvenile and adult life stages of the East Pacific DPS are exposed to high fishing effort throughout their foraging range and in coastal waters near nesting beaches. Mortality is also high in some fisheries, with reported mortality rates of up to 58 percent due in part to the use of gillnets and as well as consumption of bycaught turtles in Peru. As noted above, there have been efforts by individual nations and regional fishery management organizations to mitigate and reduce the threat of bycatch, but those efforts have not been successful at ameliorating the risks. We conclude that fisheries bycatch remains a major threat to the East Pacific DPS.

Pollution

Pollution is a threat to the East Pacific DPS. Pollution includes contaminants, marine debris, and ghost fishing gear. The South Pacific Garbage Patch, discovered in 2011 and confirmed in

2017, contains an area of elevated levels of marine debris and plastic particle pollution, most of which is concentrated within the ocean's pelagic zone and in area where leatherback turtles forage for many years of their life. The area is located within the South Pacific Gyre, which spans from waters east of Australia to the South American continent and as far north as the Equator.

Given the amount of floating debris in the Pacific Ocean (Lebreton *et al.* 2018), marine debris has the potential to be a significant threat to the East Pacific leatherback population. The precise impact cannot be quantified using the best available data. Leatherback turtles subsist primarily on jellyfish and other gelatinous zooplankton and may be prone to ingesting plastics resembling their food source (Mrosovsky 1981; Schuler *et al.* 2013, 2015). Dead leatherback turtles have been found choked on plastic bags, and phthalates derived from plastics have been found in leatherback egg yolk (Lebreton *et al.* 2018).

Prior to the early 1990s, high seas driftnet fisheries freely operated in the Pacific Ocean and interacted with thousands of sea turtles. Researchers estimated that over 1,000 leatherback turtles were taken by the combined fleets of Japan, Korea, and Taiwan during a one-year period (Wetherall 1997). However, because genetic analyses of Pacific leatherback turtles were relatively new at that time, the data does not indicate the nesting beach origin of those bycaught leatherback turtles. In 1992, a UN moratorium banned high seas driftnet fisheries, so that active large scale driftnets no longer pose a threat to leatherback turtles. However, numerous discarded driftnets continue to entangle and drown leatherback turtles in a phenomenon known as ''ghost fishing'' (Gilman *et al.* 2016),

In 2007, the IATTC passed a resolution pertaining to sea turtle bycatch in purse seine and longline fisheries which primarily target tuna. In order to address the marine debris and potential interactions with sea turtles in the eastern tropical Pacific Ocean, fishermen are required to disentangle sea turtles entangled in fish aggregating devices, even if the device does not belong to the vessel.

Only a few studies of levels or effects of toxins on leatherback turtles have examined effects to their health and fitness, as well as any effects to eggs and hatchlings. Sill *et al.* (2008) sampled non-viable leatherback eggs and hatchlings that died in the egg chamber at Las Baulas National Park. Researchers analyzed the samples for metals and other toxicants to explore the relationship between pollution and hatching success for 30 females. Metal levels were highly variable, but there were no significant differences within and between groups of females, and none of the pesticides tested were present in the samples (Sill *et al.* 2008). Overall, the study found no relationship between metal concentrations and hatching success. The researchers postulated that eggs may take up some metals from the nest environment and deposit other metals in the egg shell, as unhatched eggs contained more nickel, copper, and cadmium and contained significantly less iron, manganese and zinc than dead hatchlings (Sill and Paladino 2008).

As with all leatherback turtles, entanglement in and ingestion of marine debris and plastics is a threat that likely kills several individuals a year. However, data are not available because most affected turtles are not observed. Given the amount of pollution turtles are exposed to throughout their lifetime, this has the potential to be a significant threat to the East Pacific leatherback population, although the impact cannot be quantified using the best available data. We conclude that pollution is a threat to this DPS.

Oceanographic Regime Shifts

The East Pacific DPS is affected by oceanographic regime shifts. In the eastern equatorial Pacific Ocean, reductions in productivity parameters are primarily associated with ENSO, during which sex ratios become biased up to 100 percent female (Santidrián Tomillo *et al.* 2014). There is also an effect on hatching and emergence success in North Pacific Costa Rica (Santidrián Tomillo *et al.* 2012): During El Niño years, hatching success is very low due to dry and hot conditions on the nesting beaches and is high during La Niña events due to increased precipitation in this area. La Niña events are characterized by high phytoplankton productivity, cooler sea surface temperatures, enhanced precipitation in northwestern Costa Rica, and cooler air temperatures. These factors lead to increases in the biomass and distribution of gelatinous zooplankton, the primary food of leatherback turtles. Foraging success and the frequency of reproduction are enhanced following such periods of high primary productivity (Saba *et al.* 2007). Nesting seasons that follow the La Niña events, result in peaks in the number of nesting females, higher than average hatching success and emergence rates, and a larger proportion of male hatchlings (Saba *et al.* 2012). Saba *et al.* (2008) found that a shift from 1 °C to −1 °C in the El Niño sea surface temperature anomaly resulted in a five-fold increase in leatherback remigration probabilities at Playa Grande. Such large-scale regime shifts are likely to affect the entire DPS. Productivity is positively (La Niña) or negatively (El Niño) impacted. Wallace *et al* (2006) hypothesize that prey availability related to ENSO exacerbates the effects of fisheries bycatch mortality, resulting in declining trends. Because of the small abundance of the DPS, extended El Niño events are likely to pose a threat to the East Pacific DPS.

Climate Change

Climate change is a threat to the East Pacific DPS. The impacts of climate change include: Increases in temperatures (air, sand, and sea surface); sea level rise; increased coastal erosion; more frequent and intense storm events; and changes in oceanographic regimes and currents.

Climate projections assessed by the IPCC indicate that Central America is very likely (defined as 90 to 99 percent probability; IPCC 2007) to become warmer and likely (defined as 66 to 90 percent probability; IPCC 2007) to become drier by 2100 (Saba *et al.* 2012). In addition, climate variability is likely to change the strength and frequency of El Niño events, although there is less scientific consensus on the frequency and magnitude of changes to these events. A climate-forced population dynamics model developed by Saba *et al.* (2012) showed sea surface temperatures to be highly correlated with large phytoplankton productivity throughout a 100-year projection to the year 2100. Relative to a stable nesting population given mean surface air temperatures and precipitation from 1975 to 1999, Saba *et al.* (2012) estimated that the nesting population at Playa Grande would decline at a rate of 7 (±1) percent per decade over the next century of climate change under a scenario which considered increasing emissions from 2000 to 2100 (A2 scenario). Similar declines occurred for other scenarios (Special Report on Emissions Scenarios 2007). The nesting population was projected to remain stable up until around 2030 but reduced 75 percent by the year 2100. Hatching success and emergence rates, which would decrease associated with 2.5 °C warming of the nesting beaches, served as a primary driver of the decline. Santidrián Tomillo *et al.* (2012) developed a similar climate forcing model, which considered projected changes associated with El Niño events

and demonstrated that hatching success would decline from approximately 42 to 18 percent by 2100, while emergence rates would decline between approximately 76 to 29 percent. The authors concluded that even with protection at the primary nesting beaches in Costa Rica, with the general warming of Central America in the near future, the chances of a new nesting area emerging with more ideal conditions (*i.e.,* cooler and wetter) is unlikely (Santidrián Tomillo *et al.* 2012).

Increasing sand temperature is an existing threat to the DPS. The long-term data set on leatherback turtles nesting at Playa Grande, Costa Rica indicates reduced emergence success, skewed sex ratios, and increased hatchling mortality as a result of increased sand temperature (Santidrián Tomillo *et al.* 2015). From 2004 to 2013, primary sex ratios fluctuated between a minimum sex ratio of 41 percent females (and the only year with a male-biased hatchling production) to 100 percent females produced during two seasons (Santidrián Tomillo *et al.* 2014). Low emergence success and low hatchling output (*i.e.,* higher mortality as a result of high sand temperatures) were associated with a strongly biased female ratio, because these resulted from female-producing high temperatures. Variability in these results occur during and between nesting seasons, largely due to highly variable climatic conditions in northwestern Costa Rica, resulting in ''boom-bust'' cycles in leatherback hatchling production and primary sex ratios (*in* Santidrián Tomillo *et al.* 2014). Sand temperatures are projected to continue to increase, which will likely result in a further decline in the number of hatchlings produced (Santidrián Tomillo *et al.* 2014). An increase in the percentage of females could potentially benefit the productivity of the DPS in the short-term. However, any such benefits would be tempered by the associated lower emergence and hatchling success rates. Relocation of sea turtle clutches that may be ''doomed'' due to high sand temperatures and inundation is a common conservation practice, particularly at areas with warming beaches. However, relocation is not always possible and is also associated with lower emergence and hatchling success rates.

In addition to climate change influencing the nesting beach habitat of eastern Pacific leatherback turtles, the impacts of a warming ocean may also affect the environmental variables of their pelagic migratory and foraging habitat, which may further increase population declines. As mentioned previously, the preferred foraging habitat of eastern Pacific is characterized by relatively low sea surface temperatures and low levels of chlorophyll-a. Using information derived from satellite tracked leatherback turtles, which established migratory pathways and core foraging habitat (as summarized in Shillinger *et al.* 2008), in combination with generalized additive mixed models, researchers were able to project that between 2001 and 2100, there would be a net loss of the core foraging habitat of the DPS. The loss was predicted to be a 15 percent decline over the next century (Willis-Norton *et al.* 2014). Depending on whether this population is able to shift their preferred migratory routes and foraging habitat over time (which is unclear), remigration intervals may shorten or lengthen, which could influence reproductive productivity.

Climate change is a threat to the East Pacific DPS that affects nesting females (*e.g.,* remigration interval and fitness), their progeny (*e.g.,* hatching success, embryonic development, and feminization of hatchlings), and foraging subadult and adult leatherback turtles. Detrimental impacts of increased sand temperatures have already occurred and are likely to continue or worsen. Foraging areas will also be impacted via changes in ocean productivity, sea surface temperatures, and availability of prey.

Conservation Efforts

There are numerous efforts to conserve the leatherback turtle. The following conservation efforts apply to turtles of the East Pacific DPS (for a description of each effort, please see the section on conservation efforts for the overall species): Convention on the Conservation of Migratory Species of Wild Animals, Convention on Biological Diversity, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (Lima Convention), Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention), Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), Eastern Pacific Leatherback Network, Eastern Tropical Pacific Marine Corridor Initiative, FAO Technical Consultation on Sea Turtle-Fishery Interactions, IAC, MARPOL, IUCN, Ramsar Convention on Wetlands, RFMOs, Secretariat of the Pacific Regional Environment Programme, UNCLOS, and UN Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing. Although numerous conservation efforts apply to the turtles of this DPS, they do not adequately reduce its risk of extinction.

Extinction Risk Analysis

After reviewing the best available information, the Team concluded that the East Pacific DPS is at high risk of extinction. The DPS exhibits a total index of nesting female abundance of 755 females at monitored beaches. Such a limited nesting population size makes this DPS vulnerable to stochastic or catastrophic events that increase its extinction risk. This DPS exhibits a decreasing nest trend, which along with lower than-average productivity metrics, has the potential to further reduce abundance and increase the risk of extinction. The nesting range is somewhat limited to the Pacific Central American coast, with little diversity among sites. Thus, stochastic events could have catastrophic effects on nesting for the entire DPS, with no distant subpopulations to buffer losses or provide additional diversity. Most foraging occurs in the eastern Pacific Ocean, which is subject to oceanographic regimes shifts that expose the DPS to low-productivity events. Based on these demographic factors, we find the DPS to be at risk of extinction as a result of past threats.

Current threats also contribute to the risk of extinction of this DPS. Fisheries bycatch is the major threat, capturing, and often killing, turtles throughout their foraging areas, thus reducing abundance. There are few mechanisms in place, including internationally through the IATTC or other bilateral or international instruments and through monitoring and enforcement of coastal fisheries laws, to mitigate or reduce bycatch. Overutilization is also a major threat. Historically, harvest of turtles and eggs reduced the once high abundance of turtles to current low levels. The poaching of eggs continues, reducing productivity, especially at unprotected beaches, where egg collection may reach 100 percent and nesting females may also be at risk of poaching. The effects of climate change, including the observed and predicted increase in frequency and strength of ENSO events (*i.e.,* oceanographic regime shifts), are threats to this DPS, given its restricted foraging range and the vulnerability of nesting beaches to high sand temperatures and low levels of rainfall, which affect sex ratios and emergence and hatching success (*i.e.,* productivity). Additional threats include: Habitat loss and modification;

predation; and pollution. Development modifies nesting habitat. However, most beaches are protected throughout the nesting range. Though many regulatory mechanisms are in place, they do not adequately reduce the impact of these threats. Further, it is important to note that efforts (*e.g.,* relocation) to protect and mitigate threats from the harvest of turtles and eggs, predation, and environmental impacts related to erosion and lethal temperatures are dependent upon the presence of monitoring or management programs. Some of these are dependent on funding from the MTCA. Even when undertaken, these efforts may not be successful.

We determine, consistent with the Team's findings, that the East Pacific DPS is currently in danger of extinction. Its nesting female abundance and declining trend make the DPS highly vulnerable to threats. Though numerous conservation efforts apply to this DPS, they do not adequately reduce the risk of extinction. We conclude that the East Pacific DPS is currently in danger of extinction throughout its range and therefore meets the definition of an endangered species. The threatened species definition does not apply because the DPS is currently at risk of extinction (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

Leatherback Turtle, Overall Species

The petition under review sought specifically to identify the NW Atlantic population of leatherback sea turtles as a separate DPS and assign it a different status from the global listing. As explained throughout this finding, we have determined that seven leatherback populations would satisfy the tests for recognition under our DPS Policy (*i.e.,* that they are discrete from one another and significant to the overall species), and we have referred to these hypothetically, for purposes of our analysis only, as DPSs. This includes the NW Atlantic DPS. However, we have also determined that, even if these populations were formally recognized as DPSs through a listing process under the Act, each of the DPSs would have the same status as the overall species, which is currently listed throughout its range (globally) as endangered. Nothing in the petition or in the best available information we have reviewed has led us to conclude that there is any basis to disturb the long-standing global listing, which remains in effect and is unaffected by this finding. For completeness, here we present an overview of current information pertaining to the status of the overall species, including a summary of some of the key information from the DPS-specific sections as well as an evaluation of the demographic factors affecting the overall species.

As explained in the *Background* section, the leatherback turtle was originally listed as endangered in 1970 under the precursor to the ESA and was carried forward as an ''endangered species'' when the ESA became effective. The Services designated the nesting beaches at Sandy Point, St. Croix (43 FR 43688; September 26, 1978) and surrounding marine waters (44 FR 17710; March 23, 1979) as critical habitat. NMFS designated additional marine habitat along 41,914 square miles (108,558 square km) of the U.S. West Coast as critical habitat (77 FR 4170; January 26, 2012). The Services issued the recovery plans for leatherback turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico (1991) and U.S. Pacific (1998; *https://www.fisheries.noaa.gov/action/recovery-plans-leatherback-sea-turtle*).

The species has the widest distribution of any reptile, with a global range extending from 71° N, based on an at-sea capture off Norway (Carriol and Vader 2002) to 47° S, based on an at-sea sighting off New Zealand (Eggleston 1971; Eckert *et al.* 2012). The species has several thermoregulatory adaptations to allow such a large latitudinal range, maintain its core temperature while foraging, and avoid overheating during nesting. These include its large size, low metabolic rates, countercurrent heat exchange at the base of its limbs, and peripheral insulation (Frair *et al.* 1972; Greer *et al.* 1973; Paladino *et al.* 1990; Fossette *et al.* 2009; Bostrom *et al.* 2010; Eckert *et al.* 2012; Casey *et al.* 2014; reviewed in Wallace and Jones 2015).

Nesting is restricted to mainly tropical or subtropical beaches. However, nesting also occurs on temperate beaches of the SW Indian Ocean (Pritchard and Mortimer 1999). Nesting usually occurs on high-energy beaches (Pritchard 1976), resulting in high rates of natural erosion. The primary factors influencing shoreline suitability for nesting appear to be a lack of abrasive substrate material, a deep-water approach to minimize energy expenditure needed to reach nesting sites, and proximity to oceanic currents that can facilitate hatchling dispersal (Eckert *et al.* 2012). Leatherback turtles appear to prefer wide, long beaches with a steep slope, deep rock-free sand, and an unobstructed deep water or soft-bottom approach (Pritchard and Mortimer 1999; Eckert *et al.* 2015). As a result, it has been proposed that the choice of nesting location is based on site characteristics within a geographic location (MacKay *et al.* 2014).

Foraging areas are generally characterized by zones of upwelling, including off the edges of continents, where major currents converge, and in deep-water eddies (Saba 2013). Important foraging areas include but are not limited to: upwelling off the west coasts of North and South America (Benson *et al.* 2011; Roe *et al.* 2014); Benguela Current Marine Ecosystem (Honig *et al.* 2007); and Canadian waters on the Scotian Shelf (James *et al.* 2005a, 2006b, 2007b).

Abundance

Adding together the total indices of nesting female abundance for all DPSs, the total index of nesting female abundance for the species is 32,174 females. This number, however, should be considered as a compilation of seven populations ranging in size from 27 to 20,659 nesting females because nesting female exchange does not occur between DPSs.

Comparisons with historical accounts of nesting female abundance are complicated by the discovery of new nesting beaches over time, changes in remigration intervals and/or clutch frequency, and modified observational effort. Abundance estimates for even large nesting beaches were not available prior to 1950 (Rivalan *et al.* 2006), several large nesting beaches were not discovered until the 1960s or later (NMFS and USFWS 2013), and monitoring efforts were variable over time. Pritchard's 1971 global estimate of 29,000 to 40,000 nesting females included a maximum estimate (*i.e.,* 40,000 nesting females) based on the assumption that large nesting aggregations had yet to be discovered (Pritchard 1971); this estimate did not include large nesting female abundances from the East Pacific and SE Atlantic Oceans. At that time, the nesting aggregation at Terengganu, Malaysia nesting population was thought to be one of the largest; however it has since been extirpated (Chan and Liew 1996). In 1982, Pritchard revised his initial global estimate to 115,000 nesting females, based largely on the nesting beaches in Pacific Mexico (n = 75,000; Pritchard 1982). However, the 1982 estimate was extrapolated from a brief aerial survey and may have been an overestimate (Pritchard 1996). When the Mexico nesting population collapsed, Spotila (1996) estimated the total global estimate to be 34,500 nesting females, with a range of 26,200 to 42,900 nesting females. However, this estimate did not include the nesting aggregation in Gabon, which in 2002 was identified as

the largest in the world at that time, with tens of thousands of nesting females (Witt *et al.* 2009). Recent data indicate less than 9,000 nesting females in Gabon (Formia in progress). Thus, we find that leatherback nesting female abundance has declined rapidly in several populations. Our total index of nesting female abundance for the species, which does include the largest nesting aggregations from all DPSs, is lower than previous estimates by at least 10,000 females.

Species go extinct through the loss of populations. Therefore, the loss of any of these populations (which we refer to in this finding hypothetically as DPSs) would increase the extinction risk of the species. Most of the DPSs exhibit total indices of nesting female abundances that place them at risk for environmental variation, genetic complications, demographic stochasticity, negative ecological feedback, and catastrophes (McElhany *et al.* 2000; NMFS 2017). The current total index of nesting female abundance for the species reflects the impact of threats that have affected the species to this point. This reduced abundance renders it particularly vulnerable to threats and contributes to its extinction risk.

Productivity

Nest trends are decreasing across the species, except at the least abundant nesting aggregation in Brazil (*i.e.,* the SE Atlantic DPS), with a total index of 27 nesting females, which is increasing by 4.8 percent annually. Current nest trends are declining at rates ranging from −0.3 percent (within the SW Indian DPS) to −9.3 percent (the overall decline for the NW Atlantic DPS). Historical declines are even larger. Aerial surveys of nesting beaches in Mexico detected declines from over 70,000 nesting females in 1982 to fewer than 250 in 1998, with an annual mortality rate of 22.7 percent (Spotila 2000) and an overall decline of 97.4 percent in three generations (Wallace *et al.* 2013). The Terengganu, Malaysia nesting aggregation has declined by 17.9 percent annually from 1967 to 2010. It was been reduced to less than one percent of its original size between the 1950s and 1995 (Chan and Liew 1996) and is now considered functionally extirpated. Significant declines in nesting have been documented for other populations (Benson *et al.* 2015). Declining nesting trends reflect the impact of threats that have been operating on the species, and these trends increase the extinction risk of the species.

Spatial Distribution

The species occurs over a broad spatial range, in tropical and temperate waters worldwide, from 71° N to 47° S (Goff and Lien 1988; Carriol and Vader 2002; McMahon and Hayes 2006; Shillinger *et al.* 2008; Wallace *et al.* 2010; Benson *et al.* 2011; Eckert *et al.* 2012). It nests and forages across a wide spatial range, which provides some degree of resilience against local impacts to nesting and foraging areas. The DPSs are reproductively isolated with little to no gene flow connecting them. However, within some DPSs there is fine-scale population structure (Dutton *et al.* 1999; Dutton *et al.* 2003; Dutton *et al.* 2013; Molfetti *et al.* 2013). These subpopulations exhibit metapopulation dynamics, which make a DPS more resilient to stochastic and environmental changes. It is likely that all DPSs once exhibited such dynamics, given the ephemeral, high-energy beaches where they nest and their regional, but not necessarily beach-specific, philopatry (Dutton *et al.* 1999; Dutton *et al.* 2013). However, the reduction of nesting aggregations within a DPS has likely reduced or removed this structure, and the associated resilience, in some DPSs and in the overall species.

Diversity

Relative to other sea turtle species, the leatherback turtle has low genetic diversity and shallow mtDNA coalescence (Dutton *et al.* 1999), reflecting its recent global radiation, *i.e.,* Post-Pleistocene expansion from a refugium in the Indian Ocean (Dutton *et al.* 1999). As a species, it uses diverse and widely distributed nesting and forage areas. Differences in size at maturity, remigration rate, clutch frequency, and clutch size likely reflect environmental variability among DPSs (Saba *et al.* 2008; Saba *et al.* 2015). The age of the species and its flexible use of multiple foraging and nesting areas indicate that the species has some resilience to stochastic and environmental changes.

Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

The destruction or modification of nesting habitat is a threat to most leatherback turtles, and in some areas, this threat is major, as a result of development, erosion, or obstruction from logs. By the year 2025, the UN Educational, Scientific and Cultural Organization (2001) forecasts that human population growth and migration will result in 75 percent of people living within 60 km of the sea. This will place significant additional pressure on coastal habitats.

Coastal development and associated activities cause accelerated erosion rates and interruption of natural shoreline migration (National Research Council 1990). Numerous beaches are eroding due to both natural (*e.g.,* storms, sea level changes, waves, shoreline geology) and anthropogenic (*e.g.,* development and expansion, construction of armoring structures, groins, jetties, marinas, coastal development, inlet dredging) factors. Such shoreline erosion has led and will continue to lead to a loss of nesting habitat for leatherback turtles and potential loss of nests from inundation. Erosion or inundation and accretion of sand above incubating nests appear to be the principal abiotic factors that negatively affect incubating egg clutches in some areas (Dow *et al.* 2007; USFWS 1999; NMFS and USFWS 2013). Shoreline structuring can also physically prevent females from reaching suitable nesting habitat or prevent them from returning to sea (Witherington *et al.* 2011).

Low hatching success, relative to other sea turtle species, is characteristic of many leatherback populations despite high fertility rates (reviewed by Bell *et al.* 2003; Eckert *et al.* 2012). Nest relocation is undertaken as a conservation measure in some locations when erosion (or poaching and predation) threaten the viability of a nest. However, studies have found that hatching success of nests in hatcheries or nests relocated to another area of a beach is lower than *in situ* nests (reviewed in Hernández *et al.* 2007; Eckert *et al.* 2012). In addition, nest relocation results in altered sand temperatures, which influences the sex ratio of hatchlings produced (Sieg *et al.* 2011).

Coastal development and expansion also contributes to habitat degradation via artificial lighting (*i.e.,* light pollution). The presence of artificial lighting on or adjacent to nesting beaches alters the behavior of nesting females (often deterring nesting) and is often fatal to post-nesting females and emerging hatchlings, when they are attracted to terrestrial light sources and drawn away from the water (Witherington 1992; Sella *et al.* 2006; Witherington *et al.* 2014). As hatchlings head toward lights or meander along the beach, their exposure to predators and likelihood of desiccation are greatly increased. Artificial lighting may also affect hatchlings that successfully find the water, causing them to be misoriented after entering the surf zone or while in nearshore waters.

The modification of nesting habitat generally results in loss of productivity for the species, as a result of reductions in nest and hatching success. In addition, several DPSs experience nesting beach habitat modifications (*e.g.,* artificial lighting, logs, and other obstructions) that result in the death of nesting females and hatchlings. Therefore, abundance is also reduced, posing an even greater threat to the continued existence of the turtles of the DPS. The loss and modification of nesting habitat poses a major threat to the species.

Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Historically, the harvest of turtles and eggs was the primary threat to the species, leading to the loss of severe depletion of many nesting aggregations worldwide (Spotila *et al.* 1996). At one point in time, egg harvest was ubiquitous with all nests taken at many beaches (Chan and Liew 1996; Sarti *et al.* 2007; reviewed by Eckert *et al.* 2012). For the NW Atlantic, NE Indian, and West Pacific DPSs, legal harvest of turtle and/or eggs continues. Despite laws in many countries, the poaching of eggs continues at most nesting beaches, ranging in severity from minor at monitored or protected beaches to near 100 percent harvest at unmonitored beaches. Nesting females, and turtles caught at sea, continue to be poached for their meat, eggs, and fat in many locations (Eckert *et al.* 2012). As described in detail in the prior sections evaluating the status of each individual DPS, the harvest of eggs and turtles is a threat to each and to the species overall, and for the NE Indian and West Pacific DPSs, it is a primary threat. The legal and illegal harvest of turtles and eggs poses a threat to the species.

Disease or Predation

We do not have adequate information on disease to assess its impact on the species. However, we have enough information to conclude that predation is clearly a threat. Numerous species prey on leatherback eggs and hatchlings. Eckert *et al.* (2012) provide an exhaustive list of the documented predators for each life stage and area. For eggs, common predators include ants, ghost crabs, monitor lizards, crows, mongoose, domestic and feral dogs, and feral pigs (Eckert *et al.* 2012). For hatchlings, common predators include the terrestrial predators listed above as well as numerous species of carnivorous fish, including sharks. Sharks and killer whales, and in some areas jaguars and crocodiles, prey on subadult and adult turtles. Predation on eggs and hatchlings is common and reduces productivity of the species; predation on subadults and adults is less prevalent but reduces abundance when it occurs. Predation is a threat to the species, and for some DPSs, it is a major threat.

Inadequacy of Existing Regulatory Mechanisms

Numerous regulatory mechanisms provide certain protections to sea turtles at the international, regional, national, and local levels. For example, the harvest of sea turtles and their eggs is prohibited by regional conventions and national laws. Fisheries bycatch is also addressed, although not comprehensively, by several international and national instruments and/or governing bodies. However, as we detail below and has been discussed in prior sections reviewing each individual DPS, these measures are often poorly implemented or enforced, resulting in inadequate protections against the threats they are designed to ameliorate.

In some nations (*e.g.,* South Africa) sea turtles were among the first species to receive legal protections and have been the focus of concentrated conservation efforts. However, current regulatory mechanisms often fall short of preventing further population declines and ensuring persistence (Eckert *et al.* 2012). For many nations the regulations in place are inadequate (usually due to lack of enforcement and implementation) to address the impacts of a wide range of anthropogenic activities that directly injure and kill turtles, disturb eggs, disrupt necessary behaviors, and alter terrestrial and marine habitats used by the species. In many areas, regulations for the harvest of turtles and eggs are inadequate due to a lack of enforcement. In some areas, the regulation of fisheries bycatch do not adequately reduce associated mortality. Fishery observer coverage is often inadequate to accurately estimate leatherback bycatch.

Due in part to their worldwide distribution and highly migratory nature, combined with nesting site fidelity, leatherback turtles require international, national, regional, and local protection. Hykle (2002) and Tiwari (2002) reviewed the value of some international instruments and concluded that they vary in their effectiveness. Often, international treaties do not realize their full potential because: They do not include all key nations; do not specifically address sea turtle conservation; are handicapped by the lack of a sovereign authority to promote enforcement; and/or lack of legally-binding requirements. Lack of implementation or enforcement by some nations may make them less effective than if they were implemented in a more consistent manner across the target region. A thorough discussion of this topic is available in the 2002 special issue of the Journal of International Wildlife Law and Policy: International Instruments and Marine Turtle Conservation (Hykle 2002). Additional information on national, regional, and local protection is provided in the prior sections of this finding relating to each individual DPS.

In summary, numerous regulatory mechanisms protect leatherback turtles, eggs, and nesting habitat throughout the range of the species. Although the regulatory mechanisms provide some protection, many do not adequately reduce the threat that they were designed to address, generally as a result of limited implementation or enforcement. As a result, bycatch, incomplete nesting habitat protection, and poaching remain threats to the species. We conclude that the inadequacy of the regulatory mechanisms is a threat to the leatherback turtle.

Fisheries Bycatch

Fisheries bycatch is the primary threat to leatherback turtles (Crowder 2000; Spotila *et al.* 2000; Lewison *et al.* 2004; Wallace *et al.* 2011; Wallace *et al.* 2013; Angel *et al.* 2014). It is a primary threat to all DPSs. Leatherback turtles are susceptible to bycatch in a wide range of fisheries, from large scale commercial to artisanal. Gear types that affect leatherbacks include: longlines, purse seines, driftnets, gillnets, trawls, pots/traps, and pound nets (Gray and Diaz 2017). Turtles often drown after becoming entangled in nets and other gear or become injured and possibly die as a result of hooking or interactions with the gear. While bycatch in pelagic shallow-set swordfish longline fisheries has received the most attention to date, small-scale coastal fisheries occur worldwide, employing over 99 percent of the world's 51 million fishers (FAO 2011).

Bycatch data are most commonly collected by trained observers on fishing vessels or via surveys or interviews (Lewison *et al.* 2015). Though often the best available data on bycatch, observer data generally cover less than five percent of fisheries' total effort (Finkbeiner *et al.* 2011) and are rarely available for small-scale fisheries (Wallace *et al.* 2013; Lewison *et al.* 2015). The use of different metrics also makes the data difficult to compare

among fisheries, gear types, and regions (Lewison *et al.* 2015). Therefore, estimates of bycatch and resulting mortality often underestimate the magnitude of this threat.

Furthermore, IUU fishing is a significant yet unquantified threat to sea turtles worldwide. In addition to killing and injuring turtles, it undermines national and regional efforts to estimate fisheries bycatch. IUU fishing represents up to 26 million tonnes of fish caught annually (*http://www.fao.org/iuu-fishing/en/).* We have no estimates of the impacts to leatherback turtles from IUU fishing, though interaction and mortality rates are likely high because of the magnitude of this additional fishing pressure and because it is unregulated.

Generally, leatherback turtles do not attempt to consume the bait associated with fishing gear, as other sea turtles do, but become entangled in fishing gear (Lewison *et al.* 2015). Longline fisheries involve the deployment of a horizontal main line and vertical branchlines with baited hooks, which may entangle leatherback turtles. Bycatch reduction measures include using circle hooks, finfish bait, minimizing soak times, and limiting mainline length (Angel *et al.* 2014; *https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-pelagic-longlines#risks-to-sea-turtles*). Purse seines capture schools of fish in a vertical wall of netting that can be closed at the bottom (*https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-purse-seines*); bycatch rates are generally much lower than longline bycatch rates (Angel *et al.* 2014). Leatherback turtles also become entangled and drowned in drift or set gillnets (*https://www.fisheries.noaa.gov/national/bycatch/fishing-gear-gillnets*). Gillnets can be devastating to leatherback populations when set near nesting beaches and represent the primary threat to leatherback turtles in some areas (*e.g.,* Trinidad; Eckert and Eckert 2005). Trawl fisheries drag nets along the substrate or through the water column and can capture and drown sea turtles. Although TEDs may mitigate this threat, they are not always required or used in all areas. Vertical lines extending and/or connecting pot and trap gear with surface buoys commonly entangle and can kill leatherback turtles.

Longline and net fisheries are often the greatest threats to leatherback turtles. In a global study of sea turtle bycatch, Wallace *et al.* (2013) compiled data (n = 239 records) published between 1990 and 2011 to compare gear types (longline, net, and trawl) and their impacts to leatherback RMUs, which are similar to the DPSs discussed in this rule, though their exact boundaries differ. Wallace *et al.* (2013) defined high bycatch impact as follows: A weighted median bycatch per unit effort (BPUE) greater than or equal to one; median mortality rate greater than or equal to 0.5; and affecting adult or subadult turtles. They found that longline bycatch had a high impact on SW Atlantic, SE Atlantic, and SW Indian RMUs and that net bycatch had a high impact on the NW Atlantic and East Pacific RMUs (Wallace *et al.* 2013).

Integrating catch data from over 40 nations and bycatch data from 13 international observer programs, Lewison *et al.* (2004) estimated the numbers of leatherback turtles taken by pelagic longliners to be more than 50,000 leatherback turtles in just one year (2000). With over half of the total fishing effort (targeting tuna and swordfish) occurring in the Pacific Ocean, an estimated 20,000 leatherback turtles interacted with longline fishing gear, with 1,000 to 3,200 mortalities in 2000 (Lewison *et al.* 2004). However, Beverly and Chapman (2007) estimated sea turtle longline bycatch mortality to be approximately 20 percent of that estimated by Lewison *et al.* (2004), or approximately 200 to 640 leatherback turtle mortalities annually. We consider the estimate of Beverly and Chapman (2007) to be more realistic, considering the low nesting females abundance of Pacific leatherback turtles, and because Beverly and Chapman (2007) combined the effort data from Lewison *et al.* (2004) with bycatch data from Molony (2005) that differentiated between deep-set and shallow-set fisheries (which have different interaction rates).

In the Pacific Ocean, Roe *et al.* (2014) predicted leatherback turtle bycatch hotspots by comparing the satellite tracks of 135 adult turtles with longline fishing effort. The greatest bycatch risk occurred adjacent to primary nesting beaches of the West Pacific DPS. Bycatch risk was also high in the South Pacific Gyre, where the East Pacific DPS forages. Expanding on this study, a study of observer data from 34 swordfish-targeting shallow-set longline fleets found there were 331 leatherback turtle interactions between 1989 and 2015 (Clarke 2017). Clarke (2017) identified two bycatch hotspot areas: Central North Pacific Ocean and eastern Australia (Clarke 2017).

In the Atlantic Ocean, Fossette *et al.* (2014) compared leatherback telemetry data to longline fishing effort data from ICCAT to identify nine areas in which leatherback turtles are exposed to bycatch associated with high longline fishery pressure. The high pressure fishing areas include foraging areas in the North and South Atlantic Ocean and in waters off Brazil and western Africa. These high pressure fishing areas are not comparable to those identified by Roe *et al.* (2014), who used a different methodology, but both studies identify high risk areas within each ocean basin.

Additional bycatch information that we have set out in prior sections specific to each DPS applies to our consideration of the risk to the overall species. In summary, fisheries bycatch is a threat that is encountered by numerous juvenile and adult leatherback turtles. Mortality rates are often high, and individuals that are released may experience injuries or sublethal effects associated with entanglement, submergence, or handling. Fisheries bycatch reduces abundance, and when it prevents nesting females from returning to nesting beaches, reduces productivity as well. Fisheries bycatch is the primary threat to the leatherback species.

Vessel Strikes

Vessel strikes pose a threat to the species throughout its range. As mature individuals move from oceanic foraging areas into coastal waters to reproduce, they are exposed to a greater concentration of vessels. Vessel strikes off nesting beaches may injure or kill these individuals, reducing the abundance and productivity of the DPS. Most vessel strikes likely go unnoticed or unreported, making this threat potentially much more significant that documented occurrences would suggest. Vessel strikes are a threat to the leatherback species.

Pollution

We define pollution as including contaminants, marine debris, and ghost or derelict fishing gear. Such interactions are likely to go unnoticed and unreported and thus likely present a more significant impact than documented occurrences would suggest. Leatherback turtles of all life stages are vulnerable to oil spills, on land and at sea, where exposure to oil and dispersants occurs via contact (*i.e.,* physical fouling), inhalation, or ingestion (reviewed by Stacy *et al.* in press).

Marine debris is ubiquitous throughout the range of the species. Marine debris includes plastics (including plastic bags), microplastics, derelict fishing gear (*e.g.,* ghost nets and other discarded or lost gear), and other man-made materials. Leatherback turtles may directly consume floating plastics, mistaking it for their gelatinous prey or accidentally ingest plastics while foraging. In particular, plastic bags appear similar to jellyfish in the marine

environment, inappropriately triggering the sensory cue to feed (Schuyler *et al.* 2014; Nelms *et al.* 2016). Plastic bags have been found during necropsy of stranded leatherback turtles, and phthalates derived from plastics have been found in leatherback egg yolk (Lebreton *et al.* 2018). Mrosovsky *et al.* (2009) reviewed 408 necropsy records from 1885 to 2007 and found evidence of plastic in the gastrointestinal tract of 34 percent of leatherback turtles, including some cases in which the plastic obstructed the passage of food through the gut. The most commonly identified items were plastic bags, fishing lines, twine, and fragments of mylar balloons. Ghost or derelict fishing gear include discarded or lost nets, line, and other gear. Ghost fishing gear can drift in the ocean and fish unattended for decades and kill numerous individuals (Wilcox *et al.* 2013). The main sources of ghost fishing gear are gillnet, purse seine, and trawl fisheries (Stelfox *et al.* 2016). Marine debris affects leatherback turtles via ingestion or entanglement and can reduce food intake and digestive capacity, cause distress and/or drowning, expose turtles to contaminants, and in some cases cause direct mortality (Mrosovsky *et al.* 2009; NMFS and USFWS 2013). In terms of microplastics, all samples analyzed from all species (including leatherbacks) had microplastics evident in their gastro-intestinal tracts (Duncan *et al.* 2018). Given the increase of pollution entering the marine environment over the past 30 years or approximately 5.2 to 19.3 million tonnes per year (Lebreton *et al.* 2018), we conclude that pollution is a threat to the species.

Natural Disasters and Oceanographic Regime Shifts

Leatherback turtles are susceptible to the impacts of natural disasters and oceanographic regime shifts as a result of their nesting and foraging preferences. Nesting usually occurs on high-energy beaches that are inherently unstable (Pritchard 1976) and which are susceptible to natural erosion. The primary factors influencing shoreline suitability for nesting appear to be a lack of abrasive substrate material, a deep-water approach to minimize energy expenditure needed to reach nesting sites, and proximity to oceanic currents that can facilitate hatchling dispersal (Eckert *et al.* 2012). Leatherback turtles nest lower on the beach than other species, exposing their nests to erosion and inundation. Storm events, King Tides, tsunamis, and hurricanes can destroy or modify preferred nesting beaches of some DPSs.

Gelatinous prey have relatively low energy content, requiring leatherback turtles to consume large quantities to meet metabolic demands (Heaslip *et al.* 2012; Jones *et al.* 2012). Leatherback turtles likely maximize their caloric intake by aligning their foraging behavior to prey distribution abundance. Foraging areas are generally characterized by zones of upwelling, including off the edges of continents, where major currents converge, and in deep-water eddies (Saba 2013). Some of these areas experience oceanographic regime shifts that alter water temperature, downwelling, Ekman upwelling, sea surface height, chlorophyll-a concentration, and mesoscale eddies (Bailey *et al.* 2013; Benson *et al.* 2011). These shifts alter prey availability, and thus productivity parameters (*e.g.,* remigration rates, clutch size, and clutch frequency), for leatherback turtles. Some DPSs are not affected by such shifts because they have access to diverse foraging areas, such as: coastal and pelagic waters; subtropical, temperate, and boreal waters; and ephemeral eddies (Neeman *et al.* 2015). Such flexibility allows the leatherback turtle to consume large amounts of prey at various locations throughout the year.

We conclude that natural disasters and oceanographic regime shifts are threats to the species, affecting some but not all populations, depending on the location of nesting and foraging areas. These threats reduce productivity by reducing nesting, nesting habitat, and nest and hatching success.

Climate Change

Climate change is a threat that affects leatherback turtles of all life stages and within all DPSs. A warming climate and rising sea levels can impact leatherback turtles through changes in beach morphology, increased sand temperatures leading to a greater incidence of lethal incubation temperatures, changes in hatchling sex ratios, and the loss of nests or nesting habitat due to beach erosion (Benson *et al.* 2013).

Impacts from climate change, especially due to global warming, are already being observed and are likely to become more apparent in future years (IPCC 2007a). In its Fifth Assessment Report, the IPCC (2014) stated that the globally averaged combined land and ocean surface temperature data has shown a warming of 0.85 °C from 1880 to 2012. The mean rate of globally averaged sea level rise was 1.7 millimeters annually between 1901 and 2010, 2.0 millimeters annually between 1971 and 2010, and 3.2 millimeters annually between 1993 and 2010. Climate model projections exhibit a wide range of plausible scenarios for both temperature and precipitation over the next several decades. The global mean surface temperature change for the period 2016 to 2035 relative to 1986 to 2005 will likely be in the range of 0.3 ° to 0.7 °C (medium confidence; IPCC 2014). The global ocean temperature will continue to warm, and increases in seasonal and annual mean surface temperatures are expected to be larger in the tropics and Northern Hemisphere subtropics (*i.e.,* where leatherback turtles nest; IPCC 2014). Under Representative Concentration Pathway 8.5, the change in global mean sea level rise for the mid- and late 21st century relative to the reference period of 1986 to 2005 is projected to be 0.30 meters higher from 2046 to 2065 and 0.63 meters higher from 2081 to 2100, with a rate of sea level rise during 2081 to 2100 of 8 to 16 millimeters annually (medium confidence; IPCC 2014).

For all sea turtles, including leatherback turtles, a warming climate and rising sea levels are likely to result in changes in beach morphology, increased sand temperatures leading to a greater incidence of lethal incubation temperatures, changes in hatchling sex ratios, and the loss of nests and nesting habitat due to beach erosion (Benson *et al.* 2015; Hamann *et al.* 2013). Leatherback turtles are most likely to be affected by climate change at nesting beaches due to warming temperatures, sea level rise, and storm events and due to oceanic changes that are likely to alter foraging and migration. Warming temperatures and increased precipitation at nesting beaches affect reproductive output including hatching success, hatchling emergence rate, and hatchling sex ratios (*e.g.,* Hawkes *et al.* 2009). Sea level rise results in a reduction or shift in available nesting beach habitat, an increased risk of erosion and nest inundation (*e.g.,* Boyes *et al.* 2010), and reduced nest success (Fish *et al.* 2005; Fuentes *et al.* 2010; Fonseca *et al.* 2013). Increased frequency and severity of storm events impact nests and nesting habitat, thus reducing nesting and hatching success (*e.g.,* Van Houtan and Bass 2007; Fuentes and Abbs 2010). Changes in productivity affect the abundance and distribution of forage species, resulting in changes in the foraging behavior and distribution of leatherback turtles (*e.g.,* Saba *et al.* 2008, 2012) as well as changes in leatherback fitness and growth. Changes in water temperature lead to a shift in range and changes in phenology (timing of nesting seasons,

timing of migrations) and different threat exposure (*e.g.,* Saba *et al.* 2008, 2012).

Increasing sand temperatures will alter the thermal regime of incubating nests, resulting in altered sex ratios and reduced hatching output (Hawkes *et al.* 2009). Leatherback turtles exhibit temperature-dependent sex determination (reviewed by Binckley and Spotila 2015), whereby phenotypic sex is determined by temperatures experienced during the thermosensitive period of egg incubation. A 1:1 sex ratio is produced when this pivotal temperature lies between 29.2 and 30.4 °C for leatherback turtles in Malaysia, 29.2 and 29.8 °C in French Guiana/Suriname, and 29.2 and 29.5 °C in Pacific Costa Rica (Binckley and Spotila 2015). Warmer temperatures produce more female embryos (Mrosovsky *et al.* 1984; Hawkes *et al.* 2007), but temperatures over 32 °C are likely to result in death. As temperatures continue to increase, emergence rates decrease (Santidrián Tomillo *et al.* 2015), removing any advantage of increased female production. Santidrián Tomillo *et al.* (2015) conclude that leatherback turtles may not survive if temperatures rise as projected by current climate change models. Increases in precipitation might temporarily reduce the temperatures at some nesting beaches thereby mitigating some impacts relative to increasing sand temperatures.

Beach erosion and nest inundation already threaten leatherback nesting habitat globally. Sea level rise is likely to increase the number of nests lost to erosion and inundation. Such loss of nests is especially problematic in areas prone to storm events, which are likely to increase in intensity and duration, and in areas where coastal development impedes natural shoreline migration.

Climate change is also likely to alter the productivity in some marine environments, which could affect leatherback prey availability. With reports on the increasing incidence of jellyfish blooms in some locations, there is the perception that jellyfish abundance is increasing globally (Condon *et al.* 2012), which could result in more prey for leatherback turtles (Hawkes *et al.* 2009). However, after analyzing all available long-term datasets on jellyfish abundance, Condon *et al.* (2012) found that there is no robust evidence for a global increase in jellyfish. Rather, jellyfish populations undergo larger, worldwide oscillations with an approximate 20-year periodicity (Condon *et al.* 2012). Additional monitoring is needed to determine whether the weak linear trend in jellyfish abundance since 1970 represents an actual increase or is a phase of an oscillation (Condon *et al.* 2012). Therefore, the effects of climate change on productivity are uncertain.

As described in prior sections with respect to each individual population, some impacts from climate change have already been observed. At several nesting beaches, increased erosion occurs, and sex ratios are severely skewed toward females. Beach erosion reduces productivity. Although the skew toward females could increase productivity in the short-term, it is often correlated with low hatching success. For these reasons, climate change is a threat to the species.

Conservation Efforts

The ESA requires the Services to make their listing determinations solely on the basis of the best scientific and commercial data available, after conducting a status review, and after taking into account those efforts, if any, being made by any State or foreign nation to protect the species, whether by predatory control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction, or on the high seas (16 U.S.C. 1533 (b)(1)(A)). In addition, the Services published a policy for the evaluation of domestic conservation efforts which have yet to be implemented or to show effectiveness (68 FR 15100; March 28, 2003). We did not identify any conservation efforts that required such evaluation for leatherbacks (*i.e.,* the conservation efforts reviewed are international in nature or have already been implemented to a sufficient degree that they have a track record of being effective or not being effective). Several conservation efforts have been previously discussed in prior sections evaluating regulatory mechanisms with respect to each DPS. Therefore, the list below describes only those conservation efforts that have not been previously discussed and that apply generally to the leatherback species rather than being clearly associated with a particular population. We considered these efforts prior to making our listing determination. After reviewing these efforts, we concluded that they have been somewhat effective, in that they have prevented this endangered species from going extinct. However, these efforts have not reduced the threats to a level at which protections under the ESA are no longer necessary.

African Convention on the Conservation of Nature and Natural Resources (Algiers Convention): Adopted in September 1968, the contracted states were ''to undertake to adopt the measures necessary to ensure conservation, utilization and development of soil, water, floral and faunal resources in accordance with scientific principles and with due regard to the best interests of the people.'' The Algiers Convention recently has undergone revision, and its objectives are to enhance environmental protection, foster conservation and sustainable use of natural resources, and harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound, and socially acceptable development policies and programs. Additional information is available at *http://www.unep.ch/regionalseas/legal/afr.htm.*

Atlantic Sea Turtle Network (ASO): Created in 2003 to foster greater collaboration in southern Brazil, Uruguay, and Argentina for the protection of sea turtles and their habitats. ASO represents dozens of local and regional NGOs and government agencies as well as hundreds of community members. ASO and its partners have significantly advanced policies to protect sea turtles from fisheries interactions, which is one of the most severe threats in the region. Brazil plays a major role in South American (and global) sea turtle conservation and research, and it serves as an example to other countries. Projeto TAMAR, a partnership of the Centro TAMAR/ICMBio, government agencies, and Fundacão Pró TAMAR, has been active since 1980. Today, the group carries out sea turtle research and conservation from 22 stations on the coast and the offshore islands of Brazil. Another NGO based in the southern Brazilian state of Rio Grande do Sul, called NEMA has been collecting systematic sea turtle stranding data since 1990. Those data have been instrumental to conservation efforts in Brazil and have shown that southern Brazil has the highest stranding rates for loggerheads in the western Atlantic Ocean.

Association of Southeast Asian Nations (The ASEAN) Ministers on Agriculture and Forestry (AMAF): A Memorandum of Understanding (MoU) on ASEAN sea turtle conservation was created in 1999. From this, a Sea Turtle Conservation and Protection Program and Work plan has developed; research and monitoring activities have also been produced regionally (Kadir 2000). The objectives of this Memorandum of Understanding, initiated by ASEAN, are to promote the protection, conservation, replenishing, and recovery of sea turtles and their habitats based on the best

available scientific evidence, taking into account the environmental, socio-economic and cultural characteristics of the Parties. It currently has nine signatory states in the South East Asian Region (*http://document.seafdec.or.th/projects/2012/seaturtles.php*).

Andaman and Nicobar Island Environmental Team (ANET): A division of the Centre for Herpetology/Madras Crocodile Bank Trust has been conducting surveys and monitoring since 1991. Over the last few years, conservation and monitoring of sea turtles in these islands has been carried by Dakshin Foundation and Indian Institute of Science in collaboration with ANET, centered around a leatherback monitoring program on Little Andaman Island. A multi-institution stakeholder platform for marine conservation, including government and non- governmental agencies, was established by these groups to facilitate the conservation of marine turtles and other endangered species (Tripathy *et al.* 2012). The Trust, along with the Wildlife Institute of India and Ministry of Environment and Forests, produced a series of manuals on sea turtle conservation, management and research to help forest officers, conservationists, NGOs and wildlife enthusiasts conduct sea turtle conservation and research programs (ANET, 2003 as cited in Shanker and Andrews 2004). A consolidated manual has been produced to achieve these goals by Dakshin Foundation and the Trust (Tripathy *et al.* 2012).

Central American Regional Network: This collaborative effort created the national sea turtle network in each country of the region, as well as the development of first hand tools, such as a regional diagnosis, a 10-year strategic plan, a manual of best practices, and four regional training and information workshops for people in the region (*e.g.,* Chacón and Arauz, 2001). This initiative is managed by stakeholders in various sectors (private, non-governmental and governmental) across the region.

Convention on the Conservation of Migratory Species of Wild Animals (CMS): This Convention, also known as the Bonn Convention or CMS, is an international treaty that focuses on the conservation of migratory species and their habitats. As of December 2018, the Convention had 127 Parties, including Parties from Africa, Central and South America, Asia, Europe, and Oceania. While the Convention has successfully brought together about half the countries of the world with a direct interest in sea turtles, it has yet to realize its full potential (Hykle 2002). Its membership does not include a number of key countries, including Canada, China, Indonesia, Japan, Mexico, Oman, and the United States. Under the CMS, two Memoranda of Understanding (MOUs) apply to leatherback turtles: The MOU concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa and the MOU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia. Additional information is available at *http://www.cms.int.*

Convention on Biological Diversity (CBD): The primary objectives of this international treaty are: (1) The conservation of biological diversity, (2) the sustainable use of its components, and (3) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. This Convention has been in force since 1993 and had 193 Parties as of March 2013. While the Convention provides a framework within which are broad conservation objectives, it does not specifically address sea turtle conservation (Hykle 2002). Additional information is available at *http://www.cbd.int.*

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Known as CITES, this Convention was designed to regulate international trade in a wide range of wild animals and plants. CITES was implemented in 1975 and currently has 183 Parties. Although CITES has been effective at minimizing the international trade of sea turtle products, it does not limit legal harvest within countries, nor does it regulate intra-country commerce of sea turtle products (Hykle, 2002). The leatherback turtle is included (since 1977) in CITES Appendix I, which bans trade, including individuals and products, except as permitted for exceptional circumstances, not to include commercial purposes (Lyster 1985). Additional information is available at *http://www.cites.org.*

Convention on the Conservation of European Wildlife and Natural Habitats: Also known as the Bern Convention, the goals of this instrument are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the cooperation of several States, and to promote such cooperation. The Convention was enacted in 1982 and currently includes 51 European and African States and the European Union. Additional information is available at *http://www.coe.int/t/dg4/cultureheritage/nature/bern/default_en.asp.*

Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention): The Abidjan Convention covers the marine environment, coastal zones, and related inland waters from Mauritania to Namibia. The Abidjan Convention countries are Angola, Benin, Cameroon, Cape Verde, Congo, Cote d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, and Togo. The Abidjan Convention is an agreement for the protection and management of the marine and coastal areas that highlights sources of pollution, including pollution from ships, dumping, land-based sources, exploration and exploitation of the sea-bed, and pollution from or through the atmosphere. The Convention also identifies where co-operative environmental management efforts are needed. These areas of concern include coastal erosion, specially protected areas, combating pollution in cases of emergency and environmental impact assessment.

Convention for the Protection Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention): The Nairobi Convention was signed in 1985 and came into force in 1996. This instrument ''provides a mechanism for regional cooperation, coordination and collaborative actions, and enables the Contracting Parties to harness resources and expertise from a wide range of stakeholders and interest groups towards solving interlinked problems of the coastal and marine environment.'' Parties are responsible for ''the conservation and wise management of the sea turtle populations frequenting their waters and shores [and] agree to work closely together to improve the conservation status of the sea turtles and the habitats upon which they depend.'' The Western Indian Ocean-Marine Turtle Task Force, which was created under the Nairobi Convention and the IOSEA, plays a role in sea turtle conservation. This is a technical, non-political working group comprised of specialists from eleven countries: Comoros, France (La Réunion), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, United Kingdom and Tanzania, as well as representatives from inter-governmental organizations, academic, and non-governmental organizations within the region. Additional information is available at *http://www.unep.org/NairobiConvention.*

Convention for the Protection of the Marine Environment of the North-East Atlantic: Also called the OSPAR Convention, this 1992 instrument combines and updates the 1972 Oslo Convention against dumping waste in the marine environment and the 1974 Paris Convention addressing marine pollution stemming from land-based sources. The convention is managed by the OSPAR Commission, which is comprised of representatives from 15 signatory nations (Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom), as well as the European Commission, representing the European Community. The mission of the OSPAR Convention ''. . . is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.'' Leatherback turtles are included on the OSPAR List of Threatened and/or Declining Species and Habitats, used by the OSPAR Commission for setting priorities for work on the conservation and protection of marine biodiversity. Additional information is available at *http://www.ospar.org.*

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region: Also called the Cartagena Convention, this instrument that benefits turtles of the Northwest Atlantic leatherback DPS, has been in place since 1986 and currently has 38 member states and territories. Under this Convention, the component that relates to leatherback turtles is the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) that has been in place since 2000. The goals are to encourage Parties ''to take all appropriate measures to protect and preserve rare or fragile ecosystems, as well as the habitat of depleted, threatened or endangered species, in the Convention area.'' The SPAW protocol has partnered with WIDECAST to develop a program of work on sea turtle conservation, which has helped many of the Caribbean nations to identify and prioritize their conservation actions through Sea Turtle Recovery Action Plans. Each recovery action plan summarizes the known distribution of sea turtles, discusses major causes of mortality, evaluates the effectiveness of existing conservation laws, and prioritizes implementing measures for stock recovery. The objective of the recovery action plan series is not only to assist Caribbean governments in the discharge of their obligations under the SPAW Protocol, but also to promote a regional capability to implement science-based sea turtle management and conservation programs. Additional information is available at *http://www.cep.unep.org/about-cep/spaw.*

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Washington or Western Hemisphere Convention): Elements of the Convention include the protection of species from human-induced extinction, the establishment of protected areas, the regulation of international trade in wildlife, special measures for migratory birds and stressing the need for co-operation in scientific research and other fields are all elements of wildlife conservation. Additional information is available at *http://www.oas.org/juridico/english/treaties/c-8.html.*

Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific (Lima Convention): This Convention's signatories include all countries along the Pacific Rim of South America from Panama to Chile. Among other resource management components, this Convention established protocol for the conservation and management of protected marine resources. Stemming from this Convention is the Commision Permanente del Pacifico Sur (CPPS) that has developed a Marine Turtle Action Plan for the Southeast Pacific that outlines a strategy for protecting and recovering marine turtles in this region. Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention): This Convention has been in force since 1990 and currently includes 26 Parties. The purpose of the Convention is to protect the marine environment and coastal zones of the South-East Pacific within the 200-mile area of maritime sovereignty and jurisdiction of the Parties and, beyond that area, the high seas up to a distance within which pollution of the high seas may affect that area. Additional information is available at *http://www.unep.org/regionalseas/programmes/nonunep/pacific/instruments/default.asp.*

Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention): The World Heritage Convention was signed in 1972 and, as of November 2007, 185 states were parties to the Convention. The instrument requires parties to take effective and active measures to protect and conserve habitat of threatened species of animals and plants of scientific or aesthetic value. The World Heritage Convention currently includes 31 marine sites. Additional information is available at *http://whc.unesco.org/en/conventiontext.*

Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPF Convention): The convention entered into force on 19 June 2004. The WCPF Convention draws on many of the provisions of the UN Fish Stocks Agreement [UNFSA] while, at the same time, reflecting the special political, socio-economic, geographical and environmental characteristics of the western and central Pacific Ocean (WCPO) region. The WCPFC Convention seeks to address problems in the management of high seas fisheries resulting from unregulated fishing, over-capitalization, excessive fleet capacity, vessel re-flagging to escape controls, insufficiently selective gear, unreliable databases and insufficient multilateral cooperation in respect to conservation and management of highly migratory fish stocks.

Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific: This regional convention, also known as the Wellington Convention, was adopted in 1989 in Wellington, New Zealand, and entered into force in 1991. The objective of the Convention is ''to restrict and prohibit the use of drift nets in the South Pacific region in order to conserve marine living resources.'' Additional information is available at *http://www.mfat.govt.nz/Treaties-and-International-Law/01-Treaties-for-which-NZ-is-Depositary/0-Prohibition-of-Fishing.php.*

Eastern Pacific Leatherback Network: Also known as La Red de la Tortuga Laúd del Océano Pacifico (Laúd OPO) (*www.savepacificleatherbacks.org*) was formed to address the critical need for regional coordination of East Pacific leatherback conservation actions necessary to track conservation priorities and progress at the population level. Led by Fauna & Flora International, this network has brought together conservationists, researchers, practitioners and government representatives from 22 institutions across nine East Pacific countries with varying priorities, capacities and historical experiences in leatherback research and conservation to contribute to shared activities, projects, and goals. Through these efforts, Laúd now has mutually-agreed upon mechanisms for sharing information and data, as well as

standardized protocols for nesting beach monitoring and bycatch assessments/fishing practices.

The Eastern Tropical Pacific Marine Corridor (CMAR) is a regional and cross-border initiative for the conservation and sustainable use of the region's marine and coastal resources. Its objective is to sustainably manage biodiversity through ecosystem based management and the development of regional intergovernmental strategies with support of non-governmental organizations and international cooperation agencies.

United Nations' Food and Agricultural Organization (FAO) Technical Consultation on Sea Turtle-Fishery Interactions: While not a true international instrument for conservation, the 2004 FAO of the UN's technical consultation on sea turtle-fishery interactions was groundbreaking in that it solidified the commitment of the lead UN agency for fisheries to reduce sea turtle bycatch in marine fisheries operations. Recommendations from the technical consultation were endorsed by the FAO Committee on Fisheries (COFI) and called for the immediate implementation by member nations and Regional Fishery Management Organizations (RFMOs) of guidelines to reduce sea turtle mortality in fishing operations, developed as part of the technical consultation. Currently, all five of the tuna RFMOs call on their members and cooperating non-members to adhere to the 2009 FAO ''Guidelines to Reduce Sea Turtle Mortality in Fishing Operations,'' which describes all the gear types sea turtles could interact with and the latest mitigation options. The Western and Central Pacific Fisheries Commission (*http://www.wcpfc.int*) has the most protective measures (CMM 2008–03), which follow the FAO guidelines and ensure safe handling of all captured sea turtles. Fisheries deploying purse seines, to the extent practicable, must avoid encircling sea turtles and release entangled turtles from fish aggregating devices. Longline fishermen must carry line cutters and use dehookers to release sea turtles caught on a line. Longliners must either use large circle hooks, whole finfish bait, or mitigation measures approved by the Scientific Committee and the Technical and Compliance Committee.

Inter-American Tropical Tuna Convention (IATTC) has enacted a resolution to mitigate the impact of tuna fishing vessels on sea turtles by reducing bycatch, injury, and mortality of sea turtles. The IATTC has also developed a memorandum of understanding with the IAC. For more information, see *http://www.iattc.org/PDFFiles/Resolutions/IATTC/_English/C-07-03-Active_Sea%20turtles.pdf.*

The International Commission for the Conservation of Atlantic Tunas (ICCAT) has adopted a resolution for the reduction of sea turtle mortality (Resolution 03–11), encouraging States to submit data on sea turtle interactions, release sea turtles alive wherever possible, and conduct research on mitigation measures. It calls for implementing the FAO Guidelines for sea turtles, avoiding encirclement of sea turtles by purse seiners, safely handling and releasing sea turtles, and reporting on interactions. The Commission does not have any specific gear requirements applicable to longline fisheries. ICCAT is currently undertaking an ecological risk assessment to better understand the impact of its fisheries on sea turtle populations. For more information see *http://www.iattc.org/*. Other international fisheries organizations that may influence leatherback turtle recovery include the Southeast Atlantic Fisheries Organization (*http://www.seafo.org*) and the North Atlantic Fisheries Organization (*http://nafo.int*). These organizations regulate trawl fisheries in their respective Convention areas. Given that sea turtles can be incidentally captured in these fisheries, both organizations have sea turtle resolutions calling on their Parties to implement the FAO Guidelines on sea turtles as well as to report data on sea turtle interactions.

The Indian Ocean Tuna Commission (IOTC) is playing an increased role in turtle conservation. Resolution 05/08, superseded by Resolution 09/06 on Sea Turtles, sets out reporting requirements related to interactions with sea turtles and accordingly provides an executive summary per species for adoption at the Working Party on Ecosystem and By-catch and then subsequently at the Scientific Committee. In 2011, IOTC developed a ''Sea Turtle Identification Card'' to be distributed to all longliners operating in the Indian Ocean (*www.iotc.com*). In 2012, the Indian Ocean Tuna Commission (IOTC) began requiring its 31 contracting Parties to report sea turtle bycatch and to use safe handling and release techniques for sea turtles on longline vessels.

Indian Ocean—South-East Asian Marine Turtle Memorandum of Understanding (IOSEA): Under the auspices of the Convention of Migratory Species, the IOSEA memorandum of understanding provides a mechanism for States of the Indian Ocean and South-East Asian region, as well as other concerned States, to work together to conserve and replenish depleted marine turtle populations. This collaboration is achieved through the collective implementation of an associated Conservation and Management Plan. Currently, there are 33 Signatory States. The United States became a signatory in 2001. The IOSEA has an active sub-regional group for the Western Indian Ocean, which has improved collaboration amongst sea turtle conservationists in the region. Further, the IOSEA website provides reference materials, satellite tracks, on-line reporting of compliance with the Convention, and information on all international mechanisms currently in place for the conservation of sea turtles. Finally, at the 2012 Sixth Signatory of States meeting in Bangkok, Thailand, the Signatory States agreed to procedures to establish a network of sites of importance for sea turtles in the IOSEA region (*http://www.ioseaturtles.org*).

Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC): This Convention is the only legally binding international treaty dedicated exclusively to sea turtles and sets standards for the conservation of these endangered animals and their habitats with a large emphasis on bycatch reduction. The Convention area is the Pacific and the Atlantic waters of the Americas. Currently, there are 15 Parties. The United States became a Party in 1999. The IAC has worked to adopt fisheries bycatch resolutions, carried out workshops on Caribbean sea turtle conservation, and established collaboration with other agreements such as the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and the International Commission for the Conservation of Atlantic Tunas. Additional information is available at *http://www.iacseaturtle.org.*

International Convention for the Prevention of Pollution from Ships (MARPOL): The MARPOL Convention is a combination of two treaties adopted in 1973 and 1978 to prevent pollution of the marine environment by ships from operational or accidental causes. The 1973 treaty covered pollution by oil, chemicals, and harmful substances in packaged form, sewage and garbage. The 1978 MARPOL Protocol was adopted at a Conference on Tanker Safety and Pollution Prevention which included standards for tanker design and operation. The 1978 Protocol incorporated the 1973 Convention as it had not yet been in force and is known as the International Convention for the Prevention of Marine Pollution from Ships, 1973, as modified by the Protocol

of 1978 relating thereto (MARPOL 73/78). The 1978 Convention went into force in 1983 (Annexes I and II). The Convention includes regulations aimed at preventing and minimizing accidental and routine operations pollution from ships. Amendments passed since have updated the convention.

International Union for Conservation of Nature (IUCN): The IUCN Species Programme assesses the conservation status of species on a global scale. This assessment provides objective, scientific information on the current status of threatened species. The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on plants and animals that have been globally evaluated using the IUCN Red List Categories and Criteria. This system is designed to determine the relative risk of extinction, and the main purpose of the IUCN Red List is to catalogue and highlight those plants and animals that are facing a higher risk of global extinction (*i.e.,* those listed as Critically Endangered, Endangered and Vulnerable). Additional information is available at *http://www.iucnRedList.org/about.*

Marine Turtle Conservation Act (MTCA): The MTCA is a key element of sea turtle protection in the United States and internationally. This Act authorizes a dedicated fund to support marine turtle conservation projects in foreign countries, with emphasis on protecting nesting populations and nesting habitat. Additional information is available at *https://www.fws.gov/international/wildlife-without-borders/marine-turtle-conservation-fund.html.*

Memorandum of Agreement between the Government of the Republic of the Philippines and the Government of Malaysia on the Establishment of the Turtle Island Heritage Protected Area: Through a bilateral agreement, the Governments of the Philippines and Malaysia established The Turtle Island Heritage Protected Area (TIHPA), made up of nine islands (6 in the Philippines and 3 in Malaysia). The following priority activities were identified: management-oriented research, the establishment of a centralized database and information network, appropriate information awareness programs, a marine turtle resource management and protection program, and an appropriate ecotourism program (Bache and Frazier 2006).

Memorandum of Understanding of a Tri-National Partnership between the Government of the Republic of Indonesia, the Independent State of Papua New Guinea and the Government of Solomon Islands: This agreement promotes the conservation and management of Western Pacific leatherback turtles at nesting sites, feeding areas and migratory routes in Indonesia, Papua New Guinea and Solomon Islands. This is done through the systematic exchange of information and data on research, population and migratory routes monitoring, nesting sites and feeding areas management activities for Western Pacific leatherback turtles and by enhancing public awareness of the importance of conserving these turtles and their critical habitats. *http://awsassets.wwf.or.id/downloads/mou_trinationalpartneshipagreement_clean.pdf.*

Memorandum of Understanding Concerning Conservation Measures for Marine Turtles of the Atlantic Coast of Africa (Abidjan Memorandum): This MOU was concluded under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and became effective in 1999. The MOU area covers 26 Range States along the Atlantic coast of Africa extending approximately 14,000 km from Morocco to South Africa. The goal of this MOU is to improve the conservation status of marine turtles along the Atlantic Coast of Africa. It aims at safeguarding six marine turtle species—including the leatherback turtle—that are estimated to have rapidly declined in numbers during recent years due to excessive exploitation (both direct and incidental) and the degradation of essential habitats. This includes the protection of the life stages from hatchlings through adults with particular attention paid to the impacts of fishery bycatch and the need to include local communities in the development and implementation of conservation activities. However, despite this agreement, killing of adult turtles and harvesting of eggs remains rampant in many areas along the Atlantic African coast. Additional information is available at *http://www.cms.int/species/africa_turtle/AFRICAturtle_bkgd.htm.*

National Sea Turtle Conservation Project in India: Launched in 1998 with the aim of protecting *Lepidochelys olivacea,* but it also has conservation and protection strategies for all the other turtle species nesting in the country. This project was undertaken by the Indian government to oversee: Surveys, monitoring programs, fisheries interactions, community and NGO participation, awareness raising and education, research support, and other support for regional and international co-operation and collaboration for sea turtles conservation (Choudhury *et al.,* 2001).

North American Agreement for Environmental Cooperation: As mandated by the 1994 North American Agreement for Environmental Cooperation, the Commission for Environmental Cooperation (CEC) encourages Canada, the United States, and Mexico to adopt a continental approach to the conservation of flora and fauna. In 2003, this mandate was strengthened as the three North American countries launched the Strategic Plan for North American Cooperation in the Conservation of Biodiversity. The North American Conservation Action Plan (NACAP) initiative began as an effort promoted by the three countries, through the CEC, to facilitate the conservation of marine and terrestrial species of common concern. In 2005, the CEC supported the development of a NACAP for Pacific leatherbacks by Canada, the United States, and Mexico. Identified actions in the plan addressed three main objectives: (1) protection and management of nesting beaches and females; (2) mortality reduction from bycatch throughout the Pacific Basin; and (3) waste management, control of pollution, and disposal of debris at sea.

Ramsar Convention on Wetlands: The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty, which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Currently, there are 158 parties to the convention, with 1,752 wetland sites, including important marine turtle habitat. Additional information is available at *http://www.ramsar.org.*

Secretariat of the Pacific Regional Environment Programme (SPREP): SPREP's turtle conservation program seeks to improve knowledge about sea turtles in the Pacific through an active tagging program, as well as maintaining a database to collate information about sea turtle tags in the Pacific. SPREP supports capacity building throughout the central and southwest Pacific. SPREP established an action plan for the Pacific Islands (*http://www.sprep.org/*).

South-East Atlantic Fisheries Organization (SEAFO): SEAFO manages fisheries activities in the Southeast Atlantic high seas area, excluding tunas and billfish. SEAFO adopted Resolution 01/06, ''to Reduce Sea Turtle Mortality in Fishing Operations,'' in 2006. The Resolution requires Members to: (1) Implement the FAO Guidelines; and (2) establish on-board observer programs to collect information on sea turtle

interactions in SEAFO-managed fisheries. This Resolution is not legally binding. Additional information is available at *http://www.seafo.org.*

South Atlantic Association: In the southwest Atlantic, the South Atlantic Association is a multinational group that includes representatives from Brazil, Uruguay, and Argentina and meets bi-annually to share information and develop regional action plans to address threats including bycatch (*http://www.tortugasaso.org/*). At the national level, Brazil has developed a national plan for sea turtle bycatch reduction that was initiated in 2001 (Marcovaldi *et al.* 2002). This national plan includes various activities to mitigate bycatch, including time-area restrictions of fisheries, use of bycatch reduction devices, and working with fishermen to successfully release live-captured turtles. In Uruguay, all sea turtles are protected from human impacts, including fisheries bycatch, by presidential decree (Decreto Presidencial 144/98).

United Nations Convention on the Law of the Sea (UNCLOS): To date, 155 countries, including most mainland countries lining the western Pacific, and the European Community have joined in the convention. The United States has signed the treaty and abides by some provisions, but the Senate has not ratified it. Aside from its provisions defining ocean boundaries, the convention establishes general obligations for safeguarding the marine environment through mandating sustainable fishing practices and protecting freedom of scientific research on the high seas. Additional information is available at *http://www.un.org/Depts/los/index.htm.*

United Nations' Food and Agricultural Organization (FAO): The FAO published guidelines for sea turtle protection, entitled Technical Consultation on Sea Turtle-Fishery Interactions (FAO 2005). The UN 1995 Code of Conduct for Responsible Fisheries (FAO 2004) provides guidelines for the development and implementation of national fisheries policies, including gear modification (*e.g.,* circle hooks, fish bait, deeper sets, and reduced soak time), new technologies, and management of areas where fishery and sea turtle interactions are more severe. The guidelines stress the need for mitigation measures, data on all fisheries, fishing industry involvement, and education for fishers, observers, managers, and compliance officers (FAO 2004).

United Nations Resolution 44/225 on Large-Scale Pelagic Driftnet Fishing: In 1989, the UN called, in a unanimous resolution, for the elimination of all high seas driftnets by 1992. Additional information is available at *http://www.un.org/documents/ga/res/44/a44r225.htm.*

Although numerous conservation efforts apply to the species, they do not adequately reduce its risk of extinction for the reasons discussed previously.

Extinction Risk Analysis

The best available information is consistent with the species' current ''endangered'' listing. The species exhibits a global total index of nesting female abundance of 32,060 females at monitored beaches. This number is lower than historical estimates of nesting female abundance (n = 115,000, Pritchard 1982; and n = 34,500, Spotila 1996), which did not include the large, but then unknown, Gabon nesting aggregation. Limited nesting female abundance is a major source of concern for most DPSs, whose small population sizes place them in danger of stochastic or catastrophic events that increase extinction risk. The limited nesting female abundance increases the extinction risk of the species.

The species also exhibits declining nesting trends for all but one of the DPSs. With the exception of the DPS with the smallest index of nesting female abundance (*i.e.,* SW Atlantic DPS, with 27 nesting females), the DPSs are declining at rates of 0.3 to 9.3 percent annually. Even low levels of decline are a threat for DPSs with limited nesting female abundance, and nesting declines of approximately nine percent (*i.e.,* NW and SE Atlantic DPSs) are unsustainable. Total declines of 97 and 99 percent have occurred within the East Pacific and NE Indian DPSs, respectively, since nesting was first identified and quantified for these populations. The declining trends in nesting increase the extinction risk of the species.

The species exhibits broad nesting and foraging ranges. However, metapopulation dynamics have likely been reduced, with reductions in abundance and the loss of some nesting aggregations. The species also demonstrates little genetic diversity, relative to other sea turtle species. Although the species demonstrates some resilience to threats, overall we find it to be at risk of extinction, due to limited abundance and declining nesting trends, which reflect the cumulative impacts of threats that have acted on the species in the past (and in many cases continue to act on the species).

Current threats continue to place the species in danger of extinction. The primary threat to the species is bycatch in commercial and artisanal, pelagic and coastal, fisheries. Fisheries bycatch reduces abundance by removing individuals from the population. Because several fisheries operate near nesting beaches, productivity is also reduced when nesting females are prevented from returning to nesting beaches. The harvest of eggs and turtles is also a major threat to the species. Illegal poaching occurs throughout the range of the species, and harvest is legal but poorly documented in some nations. The loss and modification of nesting habitat is another major threat, reducing productivity and, in some instances, abundance, when nesting females die as a result of artificial lighting or obstructions preventing them from returning to sea. Predation results in the loss of eggs and hatchlings, reducing productivity of the species. Additional threats that occur throughout the range of the species include vessel strikes, pollution, marine debris, oil and gas exploration, and climate change. Natural disasters and oceanographic regime shifts are threats in some areas. Though many regulatory mechanisms are in place, they do not adequately reduce the impact of these threats.

Based on our review of the best available scientific and commercial data, we find nothing that is inconsistent with the leatherback species' current listing as an endangered species. In sum, the best available information is consistent with the current listing status of the leatherback sea turtle as an endangered species throughout its range. The threatened species definition does not apply because the species is currently in danger of extinction (*i.e.,* at present), rather than on a trajectory to become so within the foreseeable future.

Final Determination

The Services determined that the best available scientific and commercial information would support recognizing seven populations as DPSs (including the NW Atlantic) because they meet the discreteness and significance criteria for DPSs. However, we found that—even were they to be recognized and listed separately—all DPSs meet the definition of an endangered species because they are in danger of extinction throughout all of their ranges. The leatherback turtle is currently listed throughout its range as an endangered species. Replacing this listing with seven endangered DPSs would not be consistent with Congressional guidance to use the authority to list DPSs ''sparingly'' while encouraging the conservation of genetic diversity (see Senate Report 151, 96th

Congress, 1st Session). Such guidance clearly indicates that the Services have some discretion to determine whether or not to recognize DPSs that would require disaggregating an existing listing even where those populations can be shown to meet the discreteness and significance tests of the DPS Policy.

After determining that all seven populations would have the same status as the overall species, we next considered whether there was any reason to nevertheless replace the global (range-wide) listing with individual listings for the seven DPSs. We conclude that disaggregating the global listing is not warranted. It would be inconsistent with Congressional guidance and run counter to the conservation purposes of the Act to disaggregate the current listing into DPSs, because those DPSs would have the same listing status as the whole currently. Disaggregating this listing would bring about significant complications and possible public confusion without any meaningful corresponding conservation benefit. Replacing the range-wide listing with seven DPSs having the same status would not provide leatherback turtles with an overriding conservation benefit, as all members are currently protected to the fullest extent under the ESA as an endangered species. Section 7 consultations already consider the effects of an action on individuals and populations to determine whether a Federal agency has insured that its action is not likely to jeopardize the continued existence of the species. Even if the species were disaggregated into DPSs, this change would not be expected to result in different substantive outcomes in consultations. In addition, focused conservation efforts have been, and will continue to be, applied at scales smaller than the species-level. For example, FWS' Marine Turtle Conservation Fund provides funding to partners in foreign nations to protect leatherback turtles and their nesting habitats; projects include efforts to monitor and protect leatherback turtles in Indonesia and Gabon (*https://www.fws.gov/international/wildlife-without-borders/marine-turtle-conservation-fund.html*). Similarly, Pacific leatherback turtles are highlighted under NMFS' Species in the Spotlight: Survive to Thrive initiative, which directs attention and resources to highly-at-risk species (*https://www.fisheries.noaa.gov/topic/endangered-species-conservation#species-in-the-spotlight*).

For these reasons, the Services have determined that replacing the existing global listing with separate listings for individual DPSs is not warranted. Although the best available data indicates that the populations meet the criteria for significance and discreteness, we find that it would not further the purposes of the Act to recognize and list seven DPSs separately as endangered under the ESA. The current global listing of the species remains in effect.

We conclude that the petitioned actions, to identify the NW Atlantic population as a DPS and list it as a threatened species under the ESA, are not warranted. This is a final action, and, therefore, we are not soliciting public comments.

Peer Review

In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review, establishing minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin, implemented under the Information Quality Act (Pub. L. 106–554), is intended to enhance the quality and credibility of the Federal government's scientific information and applies to influential or highly influential scientific information disseminated on or after June 16, 2005. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the Status Review Report by independent scientists with expertise in leatherback turtle biology, endangered species listing policy, and related fields. All peer reviewer comments were addressed prior to the publication of the Status Review Report and this finding.

References Cited

A complete list of references is available upon request to the NMFS Office of Protected Resources (see **ADDRESSES**).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

Aurelia Skipwith,

Director, U.S. Fish and Wildlife Service.

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Part III

Department of Health and Human Services

Centers for Medicare & Medicaid Services

42 CFR Part 412

Medicare Program; Inpatient Rehabilitation Facility Prospective Payment System for Federal Fiscal Year 2021; Final Rule

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Part 412

[CMS–1729–F]

RIN 0938–AU05

Medicare Program; Inpatient Rehabilitation Facility Prospective Payment System for Federal Fiscal Year 2021

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule updates the prospective payment rates for inpatient rehabilitation facilities (IRFs) for Federal fiscal year (FY) 2021. As required by statute, this final rule includes the classification and weighting factors for the IRF prospective payment system's case-mix groups and a description of the methodologies and data used in computing the prospective payment rates for FY 2021. This final rule adopts more recent Office of Management and Budget statistical area delineations and applies a 5 percent cap on any wage index decreases compared to FY 2020 in a budget neutral manner. This final rule also amends the IRF coverage requirements to remove the post-admission physician evaluation requirement and codifies existing documentation instructions and guidance. In addition, this final rule amends the IRF coverage requirements to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law.

DATES: These regulations are effective on October 1, 2020.

Applicability dates: The updated IRF prospective payment rates are applicable for IRF discharges occurring on or after October 1, 2020, and on or before September 30, 2021 (FY 2021).

FOR FURTHER INFORMATION CONTACT: Gwendolyn Johnson, (410) 786–6954, for general information.

Catie Cooksey, (410) 786–0179, for information about the IRF payment policies and payment rates.

Kadie Derby, (410) 786–0468, for information about the IRF coverage policies.

SUPPLEMENTARY INFORMATION:

Availability of Certain Information Through the Internet on the CMS Website

The IRF PPS Addenda along with other supporting documents and tables referenced in this final rule are available through the internet on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS.*

We note that in previous years, each rule or notice issued under the IRF PPS has included a detailed reiteration of the various regulatory provisions that have affected the IRF PPS over the years. That discussion, along with detailed background information for various other aspects of the IRF PPS, is now available on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS.*

I. Executive Summary

A. Purpose

This final rule updates the prospective payment rates for IRFs for FY 2021 (that is, for discharges occurring on or after October 1, 2020, and on or before September 30, 2021) as required under section 1886(j)(3)(C) of the Social Security Act (the Act). As required by section 1886(j)(5) of the Act, this final rule includes the classification and weighting factors for the IRF PPS's case-mix groups (CMGs) and a description of the methodologies and data used in computing the prospective payment rates for FY 2021. This final rule adopts more recent Office of Management and Budget (OMB) statistical area delineations and applies a 5 percent cap on any wage index decreases compared to FY 2020 in a budget neutral manner. This final rule also amends the IRF coverage requirements to remove the post-admission physician evaluation requirement and codifies existing documentation instructions and guidance. In addition, this final rule amends the IRF coverage requirements to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law. There are no updates in this final rule to the IRF Quality Reporting Program (QRP).

B. Waiver of the 60-Day Delayed Effective Date for the Final Rule

The United States is responding to an outbreak of respiratory disease caused by a novel (new) coronavirus that has now been detected in more than 190 locations internationally, including in all 50 States and the District of Columbia. The virus has been named ''SARS-CoV–2'' and the disease it causes has been named ''coronavirus disease 2019'' (abbreviated ''COVID–19'').

Due to CMS prioritizing efforts in support of containing and combatting the COVID–19 PHE, and devoting significant resources to that end, as discussed and for the reasons discussed in section XIII. of this final rule, we are hereby waiving the 60-day requirement and determining that the IRF PPS final rule will take effect 55 days after issuance.

C. Summary of Major Provisions

In this final rule, we use the methods described in the FY 2020 IRF PPS final rule (84 FR 39054) to update the prospective payment rates for FY 2021 using updated FY 2019 IRF claims and the most recent available IRF cost report data, which is FY 2018 IRF cost report data. This final rule adopts more recent OMB statistical area delineations and applies a 5 percent cap on any wage index decreases compared to FY 2020 in a budget neutral manner. This final rule also amends the IRF coverage requirements to remove the post-admission physician evaluation requirement and codifies existing documentation instructions and guidance. In addition, this final rule amends the IRF coverage requirements to allow non-physician practitioners to perform some of the weekly visits, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law.

D. Summary of Impact

TABLE 1—COST AND BENEFIT

Provision description	Transfers
FY 2021 IRF PPS payment rate update.	The overall economic impact of this final rule is an estimated $260 million in increased payments from the Federal Government to IRFs during FY 2021.

II. Background

A. Statutory Basis and Scope

Section 1886(j) of the Act provides for the implementation of a per-discharge PPS for inpatient rehabilitation hospitals and inpatient rehabilitation units of a hospital (collectively, hereinafter referred to as IRFs). Payments under the IRF PPS encompass inpatient operating and capital costs of furnishing covered rehabilitation services (that is, routine, ancillary, and capital costs), but not direct graduate medical education costs, costs of approved nursing and allied health education activities, bad debts, and other services or items outside the scope of the IRF PPS. A complete discussion of the IRF PPS provisions appears in the original FY 2002 IRF PPS final rule (66 FR 41316) and the FY 2006 IRF PPS final rule (70 FR 47880), and we provided a general description of the IRF PPS for FYs 2007 through 2019 in the FY 2020 IRF PPS final rule (84 FR 39055 through 39057).

Under the IRF PPS from FY 2002 through FY 2005, the prospective payment rates were computed across 100 distinct CMGs, as described in the FY 2002 IRF PPS final rule (66 FR 41316). We constructed 95 CMGs using rehabilitation impairment categories (RICs), functional status (both motor and cognitive), and age (in some cases, cognitive status and age may not be a factor in defining a CMG). In addition, we constructed five special CMGs to account for very short stays and for patients who expire in the IRF.

For each of the CMGs, we developed relative weighting factors to account for a patient's clinical characteristics and expected resource needs. Thus, the weighting factors accounted for the relative difference in resource use across all CMGs. Within each CMG, we created tiers based on the estimated effects that certain comorbidities would have on resource use.

We established the Federal PPS rates using a standardized payment conversion factor (formerly referred to as the budget-neutral conversion factor). For a detailed discussion of the budget-neutral conversion factor, please refer to our FY 2004 IRF PPS final rule (68 FR 45684 through 45685). In the FY 2006 IRF PPS final rule (70 FR 47880), we discussed in detail the methodology for determining the standard payment conversion factor.

We applied the relative weighting factors to the standard payment conversion factor to compute the unadjusted prospective payment rates under the IRF PPS from FYs 2002 through 2005. Within the structure of the payment system, we then made adjustments to account for interrupted stays, transfers, short stays, and deaths. Finally, we applied the applicable adjustments to account for geographic variations in wages (wage index), the percentage of low-income patients, location in a rural area (if applicable), and outlier payments (if applicable) to the IRFs' unadjusted prospective payment rates.

For cost reporting periods that began on or after January 1, 2002, and before October 1, 2002, we determined the final prospective payment amounts using the transition methodology prescribed in section 1886(j)(1) of the Act. Under this provision, IRFs transitioning into the PPS were paid a blend of the Federal IRF PPS rate and the payment that the IRFs would have received had the IRF PPS not been implemented. This provision also allowed IRFs to elect to bypass this blended payment and immediately be paid 100 percent of the Federal IRF PPS rate. The transition methodology expired as of cost reporting periods beginning on or after October 1, 2002 (FY 2003), and payments for all IRFs now consist of 100 percent of the Federal IRF PPS rate.

Section 1886(j) of the Act confers broad statutory authority upon the Secretary to propose refinements to the IRF PPS. In the FY 2006 IRF PPS final rule (70 FR 47880) and in correcting amendments to the FY 2006 IRF PPS final rule (70 FR 57166), we finalized a number of refinements to the IRF PPS case-mix classification system (the CMGs and the corresponding relative weights) and the case-level and facility-level adjustments. These refinements included the adoption of the OMB's Core-Based Statistical Area (CBSA) market definitions; modifications to the CMGs, tier comorbidities; and CMG relative weights, implementation of a new teaching status adjustment for IRFs; rebasing and revising the market basket index used to update IRF payments, and updates to the rural, low-income percentage (LIP), and high-cost outlier adjustments. Beginning with the FY 2006 IRF PPS final rule (70 FR 47908 through 47917), the market basket index used to update IRF payments was a market basket reflecting the operating and capital cost structures for freestanding IRFs, freestanding inpatient psychiatric facilities (IPFs), and long-term care hospitals (LTCHs) (hereinafter referred to as the rehabilitation, psychiatric, and long-term care (RPL) market basket). Any reference to the FY 2006 IRF PPS final rule in this final rule also includes the provisions effective in the correcting amendments. For a detailed discussion of the final key policy changes for FY 2006, please refer to the FY 2006 IRF PPS final rule.

The regulatory history previously included in each rule or notice issued under the IRF PPS is available on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/index?redirect=/InpatientRehabFacPPS/*.

B. Provisions of the PPACA Affecting the IRF PPS in FY 2012 and Beyond

The Patient Protection and Affordable Care Act (PPACA) (Pub. L. 111–148) was enacted on March 23, 2010. The Health Care and Education Reconciliation Act of 2010 (Pub. L. 111–152), which amended and revised several provisions of the PPACA, was enacted on March 30, 2010. In this final rule, we refer to the two statutes collectively as the ''Patient Protection and Affordable Care Act'' or ''PPACA''.

The PPACA included several provisions that affect the IRF PPS in FYs 2012 and beyond. In addition to what was previously discussed, section 3401(d) of the PPACA also added section 1886(j)(3)(C)(ii)(I) of the Act (providing for a ''productivity adjustment'' for fiscal year (FY) 2012 and each subsequent FY). The productivity adjustment for FY 2021 is discussed in section VI.B. of this final rule. Section 1886(j)(3)(C)(ii)(II) of the Act provides that the application of the productivity adjustment to the market basket update may result in an update that is less than 0.0 for a FY and in payment rates for a FY being less than such payment rates for the preceding FY.

Sections 3004(b) of the PPACA and section 411(b) of the Medicare Access and CHIP Reauthorization Act of 2015 (Pub. L. 114–10, enacted on April 16, 2015) (MACRA) also addressed the IRF PPS. Section 3004(b) of PPACA reassigned the previously designated section 1886(j)(7) of the Act to section 1886(j)(8) of the Act and inserted a new section 1886(j)(7) of the Act, which contains requirements for the Secretary to establish a quality reporting program (QRP) for IRFs. Under that program, data must be submitted in a form and manner and at a time specified by the Secretary. Beginning in FY 2014, section 1886(j)(7)(A)(i) of the Act requires the application of a 2 percentage point reduction to the market basket increase factor otherwise applicable to an IRF (after application of paragraphs (C)(iii) and (D) of section 1886(j)(3) of the Act) for a FY if the IRF does not comply with the requirements of the IRF QRP for that FY. Application of the 2 percentage point reduction may result in an update that is less than 0.0 for a FY and in payment rates for a FY being less than such payment rates for the preceding FY. Reporting-based reductions to the market basket increase factor are not cumulative; they only apply for the FY involved. Section 411(b) of the MACRA amended section 1886(j)(3)(C) of the Act by adding paragraph (iii), which required us to apply for FY 2018, after the application of section 1886(j)(3)(C)(ii) of the Act, an increase factor of 1.0 percent to update the IRF prospective payment rates.

C. Operational Overview of the Current IRF PPS

As described in the FY 2002 IRF PPS final rule (66 FR 41316), upon the admission and discharge of a Medicare Part A fee-for-service (FFS) patient, the IRF is required to complete the appropriate sections of a Patient Assessment Instrument (PAI), designated as the IRF–PAI. In addition, beginning with IRF discharges occurring on or after October 1, 2009, the IRF is also required to complete the appropriate sections of the IRF–PAI upon the admission and discharge of each Medicare Advantage (MA) patient, as described in the FY 2010 IRF PPS final rule (74 FR 39762 and 74 FR 50712). All required data must be electronically encoded into the IRF–PAI software product. Generally, the software product includes patient classification programming called the Grouper software. The Grouper software uses specific IRF–PAI data elements to classify (or group) patients into distinct CMGs and account for the existence of any relevant comorbidities.

The Grouper software produces a five-character CMG number. The first character is an alphabetic character that indicates the comorbidity tier. The last four characters are numeric characters that represent the distinct CMG number. A free download of the Grouper software is available on the CMS website at *http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/Software.html.* The Grouper software is also embedded in the iQIES User tool available in iQIES at *https://www.cms.gov/medicare/quality-safety-oversight-general-information/iqies.*

Once a Medicare Part A FFS patient is discharged, the IRF submits a Medicare claim as a Health Insurance Portability and Accountability Act of 1996 (HIPAA) (Pub. L. 104–191, enacted on August 21, 1996)—compliant electronic claim or, if the Administrative Simplification Compliance Act of 2002 (ASCA) (Pub. L. 107–105, enacted on December 27, 2002) permits, a paper claim (a UB–04 or a CMS–1450 as appropriate) using the five-character CMG number and sends it to the appropriate Medicare Administrative Contractor (MAC). In addition, once a MA patient is discharged, in accordance with the Medicare Claims Processing Manual, chapter 3, section 20.3 (Pub. L. 100–04), hospitals (including IRFs) must submit an informational-only bill (type of bill (TOB) 111), which includes Condition Code 04 to their MAC. This will ensure that the MA days are included in the hospital's Supplemental Security Income (SSI) ratio (used in calculating the IRF LIP adjustment) for FY 2007 and beyond. Claims submitted to Medicare must comply with both ASCA and HIPAA.

Section 3 of the ASCA amended section 1862(a) of the Act by adding paragraph (22), which requires the Medicare program, subject to section 1862(h) of the Act, to deny payment under Part A or Part B for any expenses for items or services for which a claim is submitted other than in an electronic form specified by the Secretary. Section 1862(h) of the Act, in turn, provides that the Secretary shall waive such denial in situations in which there is no method available for the submission of claims in an electronic form or the entity submitting the claim is a small provider. In addition, the Secretary also has the authority to waive such denial in such unusual cases as the Secretary finds appropriate. For more information, see the ''Medicare Program; Electronic Submission of Medicare Claims'' final rule (70 FR 71008). Our instructions for the limited number of Medicare claims submitted on paper are available at *http://www.cms.gov/manuals/downloads/clm104c25.pdf.*

Section 3 of the ASCA operates in the context of the administrative simplification provisions of HIPAA, which include, among others, the requirements for transaction standards and code sets codified in 45 CFR part 160 and part 162, subparts A and I through R (generally known as the Transactions Rule). The Transactions Rule requires covered entities, including covered health care providers, to conduct covered electronic transactions according to the applicable transaction standards. (See the CMS program claim memoranda at *http://www.cms.gov/ElectronicBillingEDITrans/* and listed in the addenda to the Medicare Intermediary Manual, Part 3, section 3600).

The MAC processes the claim through its software system. This software system includes pricing programming called the ''Pricer'' software. The Pricer software uses the CMG number, along with other specific claim data elements and provider-specific data, to adjust the IRF's prospective payment for interrupted stays, transfers, short stays, and deaths, and then applies the applicable adjustments to account for the IRF's wage index, percentage of low-income patients, rural location, and outlier payments. For discharges occurring on or after October 1, 2005, the IRF PPS payment also reflects the teaching status adjustment that became effective as of FY 2006, as discussed in the FY 2006 IRF PPS final rule (70 FR 47880).

D. Advancing Health Information Exchange

The Department of Health and Human Services (HHS) has a number of initiatives designed to encourage and support the adoption of interoperable health information technology and to promote nationwide health information exchange to improve health care and patient access to their health information. The Office of the National Coordinator for Health Information Technology (ONC) and CMS work collaboratively to advance interoperability across settings of care, including post-acute care.

To further interoperability in post-acute care settings, CMS continues to explore opportunities to advance electronic exchange of patient information across payers, providers and with patients, including developing systems that use nationally recognized health IT standards such as the Logical Observation Identifiers Names and Codes (LOINC), the Systematized

Nomenclature of Medicine (SNOMED), and the Fast Healthcare Interoperability Resources (FHIR). In addition, CMS and ONC established the Post-Acute Care Interoperability Workgroup (PACIO) to facilitate collaboration with industry stakeholders to develop FHIR standards that could support the exchange and reuse of patient assessment data derived from the minimum data set (MDS), inpatient rehabilitation facility patient assessment instrument (IRF–PAI), long term care hospital continuity assessment record and evaluation (LCDS), outcome and assessment information set (OASIS) and other sources.

The Data Element Library (DEL) continues to be updated and serves as the authoritative resource for PAC assessment data elements and their associated mappings to health IT standards. The DEL furthers CMS' goal of data standardization and interoperability. These interoperable data elements can reduce provider burden by allowing the use and exchange of healthcare data, support provider exchange of electronic health information for care coordination, person-centered care, and support real-time, data driven, clinical decision making. Standards in the Data Element Library (*https://del.cms.gov/DELWeb/pubHome*) can be referenced on the CMS website and in the ONC Interoperability Standards Advisory (ISA). The 2020 ISA is available at *https://www.healthit.gov/isa.*

In the September 30, 2019 **Federal Register**, CMS published a final rule, ''Medicare and Medicaid Programs; Revisions to Requirements for Discharge Planning'' (84 FR 51836) (''Discharge Planning final rule''), that revises the discharge planning requirements that hospitals (including psychiatric hospitals, long-term care hospitals, and inpatient rehabilitation facilities), critical access hospitals (CAHs), and home health agencies, must meet to participate in Medicare and Medicaid programs. The rule supports CMS' interoperability efforts by promoting the exchange of patient information between health care settings, and by ensuring that a patient's necessary medical information is transferred with the patient after discharge from a hospital, CAH, or post-acute care services provider. For more information on the Discharge planning requirements, please visit the final rule at *https://www.federalregister.gov/documents/2019/09/30/2019-20732/medicare-and-medicaid-programs-revisions-to-requirements-for-discharge-planning-for-hospitals.*

On May 1 2020, ONC and CMS published the final rules, ''21st Century Cures Act: Interoperability, Information Blocking, and the ONC Health IT Certification Program,'' [1] (85 FR 25642) and ''Patient Access and Interoperability'' [2] (85 FR 25510) to promote secure and more immediate access to health information for patients and healthcare providers through the use of standards-based application programming interfaces (APIs) that enable easier access to electronic health information. The CMS Interoperability and Patient Access rule also finalizes a new regulation under the Conditions of Participation for hospitals (85 FR 25584), including CAHs and psychiatric hospitals, which will require these providers to send electronic patient event notifications of a patient's admission, discharge, and/or transfer to appropriate recipients, including applicable post-acute care providers and suppliers. These notifications can help alert post-acute care providers and suppliers when a patient has been seen in the ED or admitted to the hospital, supporting more effective care coordination across settings. We invite providers to learn more about these important developments and how they are likely to affect IRFs.

III. Summary of Provisions of the Proposed Rule

In the FY 2021 IRF PPS proposed rule, we proposed to update the IRF prospective payment rates for FY 2021. We also proposed to adopt more recent Office of Management and Budget statistical area delineations and apply a 5 percent cap on any wage index decreases compared to FY 2020 in a budget neutral manner. We also proposed to amend the IRF coverage requirements to remove the post-admission physician evaluation requirement and codify existing documentation instructions and guidance. Additionally, we proposed to amend the IRF coverage requirements to allow non-physician practitioners to perform certain requirements that are currently required to be performed by a rehabilitation physician.

The proposed policy changes and updates to the IRF prospective payment rates for FY 2021 are as follows:

- Update the CMG relative weights and average length of stay values for FY 2021, in a budget neutral manner, as discussed in section IV. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22069 through 22073).
- Update the IRF PPS payment rates for FY 2021 by the proposed market basket increase factor, based upon the most current data available, with a proposed productivity adjustment required by section 1886(j)(3)(C)(ii)(I) of the Act, as described in section V. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22073 through 22075).
- Adopt the revised OMB delineations, the proposed IRF wage index transition, and the proposed update to the labor-related share for FY 2021 in a budget-neutral manner, as described in section V. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22075 through 22080).
- Describe the calculation of the IRF standard payment conversion factor for FY 2021, as discussed in section V. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22080 through 22081).
- Update the outlier threshold amount for FY 2021, as discussed in section VI. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22084 through 22085).
- Update the cost-to-charge ratio (CCR) ceiling and urban/rural average CCRs for FY 2021, as discussed in section VI. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22085 through 22086).
- Amend the IRF coverage requirements to remove the post-admission physician evaluation requirement as discussed in section VII. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22086 through 22087).
- Amend the IRF coverage requirements to codify existing documentation instructions and guidance as discussed in section VIII. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22087 through 22088).
- Amend the IRF coverage requirements to allow non-physician practitioners to perform certain requirements that are currently required to be performed by a rehabilitation physician, if permitted under state law, as discussed in section IX. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22088 through 22090).
- Describe the method for applying the reduction to the FY 2021 IRF increase factor for IRFs that fail to meet the quality reporting requirements as discussed in section X. of the FY 2021 IRF PPS proposed rule (85 FR 22065, 22090).

IV. Analysis of and Responses to Public Comments

We received 2,668 timely responses from the public, many of which contained multiple comments on the FY

[1] *https://www.govinfo.gov/content/pkg/FR-2020-05-01/pdf/2020-07419.pdf.*

[2] *https://www.govinfo.gov/content/pkg/FR-2020-05-01/pdf/2020-05050.pdf.*

2021 IRF PPS proposed rule (85 FR 22065). We received comments from various trade associations, inpatient rehabilitation facilities, individual physicians, therapists, clinicians, health care industry organizations, health care consulting firms, individual beneficiaries, and beneficiary groups. The following sections, arranged by subject area, include a summary of the public comments that we received, and our responses.

V. Update to the Case-Mix Group (CMG) Relative Weights and Average Length of Stay Values for FY 2021

As specified in § 412.620(b)(1), we calculate a relative weight for each CMG that is proportional to the resources needed by an average inpatient rehabilitation case in that CMG. For example, cases in a CMG with a relative weight of 2, on average, will cost twice as much as cases in a CMG with a relative weight of 1. Relative weights account for the variance in cost per discharge due to the variance in resource utilization among the payment groups, and their use helps to ensure that IRF PPS payments support beneficiary access to care, as well as provider efficiency.

We proposed to update the CMG relative weights and average length of stay values for FY 2021. As required by statute, we always use the most recent available data to update the CMG relative weights and average lengths of stay. For FY 2021, we proposed to use the FY 2019 IRF claims and FY 2018 IRF cost report data. These data are the most current and complete data available at this time. Currently, only a small portion of the FY 2019 IRF cost report data are available for analysis, but the majority of the FY 2019 IRF claims data are available for analysis. We also proposed that if more recent data become available after the publication of the proposed rule and before the publication of the final rule, we would use such data to determine the FY 2021 CMG relative weights and average length of stay values in the final rule.

We proposed to apply these data using the same methodologies that we have used to update the CMG relative weights and average length of stay values each FY since we implemented an update to the methodology to use the more detailed CCR data from the cost reports of IRF provider units of primary acute care hospitals, instead of CCR data from the associated primary care hospitals, to calculate IRFs' average costs per case, as discussed in the FY 2009 IRF PPS final rule (73 FR 46372). In calculating the CMG relative weights, we use a hospital-specific relative value method to estimate operating (routine and ancillary services) and capital costs of IRFs. The process used to calculate the CMG relative weights for this final rule is as follows:

Step 1. We estimate the effects that comorbidities have on costs.

Step 2. We adjust the cost of each Medicare discharge (case) to reflect the effects found in the first step.

Step 3. We use the adjusted costs from the second step to calculate CMG relative weights, using the hospital-specific relative value method.

Step 4. We normalize the FY 2021 CMG relative weights to the same average CMG relative weight from the CMG relative weights implemented in the FY 2020 IRF PPS final rule (84 FR 39054).

Consistent with the methodology that we have used to update the IRF classification system in each instance in the past, we proposed to update the CMG relative weights for FY 2021 in such a way that total estimated aggregate payments to IRFs for FY 2021 are the same with or without the changes (that is, in a budget-neutral manner) by applying a budget neutrality factor to the standard payment amount. We note that, as we typically do, we updated our data between the FY 2021 IRF PPS proposed and final rules to ensure that we use the most recent available data in calculating IRF PPS payments. This updated data reflects a more complete set of claims for FY 2019 and additional cost report data for FY 2018. To calculate the appropriate budget neutrality factor for use in updating the FY 2021 CMG relative weights, we use the following steps:

Step 1. Calculate the estimated total amount of IRF PPS payments for FY 2021 (with no changes to the CMG relative weights).

Step 2. Calculate the estimated total amount of IRF PPS payments for FY 2021 by applying the changes to the CMG relative weights (as discussed in this final rule).

Step 3. Divide the amount calculated in step 1 by the amount calculated in step 2 to determine the budget neutrality factor of 0.9970 that would maintain the same total estimated aggregate payments in FY 2021 with and without the changes to the CMG relative weights.

Step 4. Apply the budget neutrality factor from step 3 to the FY 2021 IRF PPS standard payment amount after the application of the budget-neutral wage adjustment factor.

In section VI.D. of this final rule, we discuss the use of the existing methodology to calculate the standard payment conversion factor for FY 2021.

In Table 2, ''Relative Weights and Average Length of Stay Values for Revised Case-Mix Groups,'' we present the CMGs, the comorbidity tiers, the corresponding relative weights, and the average length of stay values for each CMG and tier for FY 2021. The average length of stay for each CMG is used to determine when an IRF discharge meets the definition of a short-stay transfer, which results in a per diem case level adjustment.

TABLE 2—RELATIVE WEIGHTS AND AVERAGE LENGTH OF STAY VALUES FOR THE REVISED CASE-MIX GROUPS

CMG	CMG description (M = motor, A = age)	Relative weight				Average length of stay			
		Tier 1	Tier 2	Tier 3	No comorbidity tier	Tier 1	Tier 2	Tier 3	No comorbidity tier
0101 ...	Stroke M >=72.50	1.0314	0.8818	0.8182	0.7830	10	10	10	9
0102 ...	Stroke M >=63.50 and M <72.50	1.3174	1.1262	1.0451	1.0001	13	13	12	11
0103 ...	Stroke M >=50.50 and M <63.50	1.6846	1.4401	1.3363	1.2789	15	16	15	14
0104 ...	Stroke M >=41.50 and M <50.50	2.1886	1.8710	1.7361	1.6615	19	19	18	18
0105 ...	Stroke M <41.50 and A >=84.50	2.4829	2.1226	1.9696	1.8850	23	23	21	20
0106 ...	Stroke M <41.50 and A <84.50	2.8525	2.4385	2.2628	2.1655	26	24	23	23
0201 ...	Traumatic brain injury M >=73.50	1.1495	0.9399	0.8443	0.7891	10	11	10	10
0202 ...	Traumatic brain injury M >=61.50 and M <73.50	1.4440	1.1807	1.0606	0.9913	12	14	12	12
0203 ...	Traumatic brain injury M >=49.50 and M <61.50	1.7411	1.4235	1.2787	1.1952	15	15	14	14
0204 ...	Traumatic brain injury M >=35.50 and M <49.50	2.1669	1.7718	1.5915	1.4876	20	19	17	16
0205 ...	Traumatic brain injury M <35.50	2.7369	2.2377	2.0101	1.8788	32	24	21	18
0301 ...	Non-traumatic brain injury M >=65.50	1.2263	0.9941	0.9185	0.8514	11	11	10	10
0302 ...	Non-traumatic brain injury M >=52.50 and M <65.50.	1.5711	1.2737	1.1768	1.0908	14	14	13	12

TABLE 2—RELATIVE WEIGHTS AND AVERAGE LENGTH OF STAY VALUES FOR THE REVISED CASE-MIX GROUPS—Continued

CMG	CMG description (M = motor, A = age)	Relative weight				Average length of stay			
		Tier 1	Tier 2	Tier 3	No comorbidity tier	Tier 1	Tier 2	Tier 3	No comorbidity tier
0303 ...	Non-traumatic brain injury M >=42.50 and M <52.50.	1.8808	1.5247	1.4087	1.3058	16	16	15	14
0304 ...	Non-traumatic brain injury M <42.50 and A >=78.50	2.1101	1.7105	1.5805	1.4650	19	18	16	16
0305 ...	Non-traumatic brain injury M <42.50 and A <78.50	2.3049	1.8685	1.7264	1.6002	21	20	17	17
0401 ...	Traumatic spinal cord injury M >=56.50	1.3684	1.1612	1.0460	0.9718	12	12	12	11
0402 ...	Traumatic spinal cord injury M >=47.50 and M <56.50.	1.7807	1.5110	1.3611	1.2646	16	16	14	15
0403 ...	Traumatic spinal cord injury M >=41.50 and M <47.50.	2.1371	1.8135	1.6336	1.5177	20	20	18	17
0404 ...	Traumatic spinal cord injury M <31.50 and A <61.50.	3.6185	3.0706	2.7660	2.5698	29	35	32	26
0405 ...	Traumatic spinal cord injury M >=31.50 and M <41.50.	2.7444	2.3288	2.0978	1.9490	25	26	22	21
0406 ...	Traumatic spinal cord injury M >=24.50 and M <31.50 and A >=61.50.	3.5969	3.0522	2.7494	2.5544	34	31	28	28
0407 ...	Traumatic spinal cord injury M <24.50 and A >=61.50.	4.1070	3.4850	3.1394	2.9166	46	36	32	32
0501 ...	Non-traumatic spinal cord injury M >=60.50	1.3097	1.0178	0.9609	0.8875	13	12	11	10
0502 ...	Non-traumatic spinal cord injury M >=53.50 and M <60.50.	1.6273	1.2646	1.1939	1.1028	14	14	13	12
0503 ...	Non-traumatic spinal cord injury M >=48.50 and M <53.50.	1.8899	1.4687	1.3866	1.2807	16	16	15	14
0504 ...	Non-traumatic spinal cord injury M >=39.50 and M <48.50.	2.2506	1.7491	1.6513	1.5252	21	19	18	17
0505 ...	Non-traumatic spinal cord injury M <39.50	2.9362	2.2819	2.1543	1.9899	28	24	22	21
0601 ...	Neurological M >=64.50	1.3673	1.0293	0.9649	0.8770	12	11	10	10
0602 ...	Neurological M >=52.50 and M <64.50	1.7016	1.2809	1.2008	1.0915	14	13	12	12
0603 ...	Neurological M >=43.50 and M <52.50	2.0214	1.5216	1.4264	1.2965	16	15	15	14
0604 ...	Neurological M <43.50	2.3456	1.7657	1.6552	1.5045	20	18	17	16
0701 ...	Fracture of lower extremity M >=61.50	1.2473	1.0115	0.9585	0.8811	11	12	11	10
0702 ...	Fracture of lower extremity M >=52.50 and M <61.50.	1.5595	1.2647	1.1985	1.1016	14	14	13	12
0703 ...	Fracture of lower extremity M >=41.50 and M <52.50.	1.8956	1.5373	1.4568	1.3390	17	16	15	15
0704 ...	Fracture of lower extremity M <41.50	2.1660	1.7566	1.6646	1.5300	19	18	17	17
0801 ...	Replacement of lower-extremity joint M >=63.50	1.1268	0.9068	0.8121	0.7564	10	10	9	9
0802 ...	Replacement of lower-extremity joint M >=57.50 and M <63.50.	1.3248	1.0661	0.9548	0.8893	12	11	11	10
0803 ...	Replacement of lower-extremity joint M >=51.50 and M <57.50.	1.4799	1.1909	1.0666	0.9934	12	13	12	11
0804 ...	Replacement of lower-extremity joint M >=42.50 and M <51.50.	1.7056	1.3726	1.2293	1.1449	14	15	13	13
0805 ...	Replacement of lower-extremity joint M <42.50	1.9874	1.5994	1.4324	1.3341	17	17	15	14
0901 ...	Other orthopedic M >=63.50	1.2111	0.9651	0.9133	0.8273	11	11	10	10
0902 ...	Other orthopedic M >=51.50 and M <63.50	1.5078	1.2015	1.1371	1.0301	13	13	12	12
0903 ...	Other orthopedic M >=44.50 and M <51.50	1.7744	1.4139	1.3382	1.2122	15	15	14	14
0904 ...	Other orthopedic M <44.5	2.0373	1.6235	1.5365	1.3918	17	17	16	15
1001 ...	Amputation lower extremity M >=64.50	1.2960	1.0863	0.9748	0.9004	12	13	11	11
1002 ...	Amputation lower extremity M >=55.50 and M <64.50.	1.6010	1.3419	1.2042	1.1123	14	15	13	13
1003 ...	Amputation lower extremity M >=47.50 and M <55.50.	1.8708	1.5681	1.4072	1.2997	16	17	15	14
1004 ...	Amputation lower extremity M <47.50	2.2049	1.8481	1.6585	1.5318	18	19	17	16
1101 ...	Amputation non-lower extremity M >=58.50	1.2999	1.1583	1.0117	0.9810	12	11	11	13
1102 ...	Amputation non-lower extremity M >=52.50 and M <58.50.	1.7367	1.5476	1.3517	1.3107	14	13	14	14
1103 ...	Amputation non-lower extremity M <52.50	1.9515	1.7390	1.5188	1.4728	17	13	15	14
1201 ...	Osteoarthritis M >=61.50	1.4251	0.9495	0.9495	0.8718	11	10	10	10
1202 ...	Osteoarthritis M >=49.50 and M <61.50	1.7907	1.1930	1.1930	1.0954	13	14	13	12
1203 ...	Osteoarthritis M <49.50 and A >=74.50	2.0815	1.3867	1.3867	1.2734	15	14	16	14
1204 ...	Osteoarthritis M <49.50 and A <74.50	2.1877	1.4575	1.4575	1.3383	15	15	15	15
1301 ...	Rheumatoid other arthritis M >=62.50	1.1277	0.9311	0.8839	0.7847	9	11	10	9
1302 ...	Rheumatoid other arthritis M >=51.50 and M <62.50.	1.5429	1.2740	1.2094	1.0737	12	13	13	12
1303 ...	Rheumatoid other arthritis M >=44.50 and M <51.50 and A >=64.50.	1.7786	1.4686	1.3941	1.2377	14	15	14	14
1304 ...	Rheumatoid other arthritis M <44.50 and A >=64.50	2.0617	1.7024	1.6161	1.4347	14	17	16	16
1305 ...	Rheumatoid other arthritis M <51.50 and A <64.50	2.0876	1.7237	1.6363	1.4527	15	16	16	16
1401 ...	Cardiac M >=68.50	1.1456	0.9392	0.8477	0.7585	10	10	10	9
1402 ...	Cardiac M >=55.50 and M <68.50	1.4391	1.1799	1.0650	0.9529	13	13	11	11
1403 ...	Cardiac M >=45.50 and M <55.50	1.7474	1.4326	1.2931	1.1570	15	15	13	13
1404 ...	Cardiac M <45.50	2.0524	1.6827	1.5188	1.3590	18	17	16	14
1501 ...	Pulmonary M >=68.50	1.2905	1.0335	0.9655	0.9262	11	11	10	10
1502 ...	Pulmonary M >=56.50 and M <68.50	1.5913	1.2744	1.1906	1.1421	13	13	12	12
1503 ...	Pulmonary M >=45.50 and M <56.50	1.8476	1.4796	1.3823	1.3261	16	14	13	13
1504 ...	Pulmonary M <45.50	2.1421	1.7154	1.6027	1.5375	22	16	15	14

TABLE 2—RELATIVE WEIGHTS AND AVERAGE LENGTH OF STAY VALUES FOR THE REVISED CASE-MIX GROUPS—Continued

CMG	CMG description (M = motor, A = age)	Relative weight				Average length of stay			
		Tier 1	Tier 2	Tier 3	No comorbidity tier	Tier 1	Tier 2	Tier 3	No comorbidity tier
1601	Pain syndrome M >=65.50	0.9889	0.9889	0.8919	0.8028	9	10	11	9
1602	Pain syndrome M >=58.50 and M <65.50	1.1078	1.1078	0.9991	0.8992	10	11	11	11
1603	Pain syndrome M >=43.50 and M <58.50	1.3538	1.3538	1.2209	1.0989	12	14	13	13
1604	Pain syndrome M <43.50	1.7201	1.7201	1.5513	1.3963	13	15	17	15
1701	Major multiple trauma without brain or spinal cord injury M >=57.50.	1.3910	1.0912	0.9919	0.9032	12	13	11	11
1702	Major multiple trauma without brain or spinal cord injury M >=50.50 and M <57.50.	1.6988	1.3328	1.2115	1.1031	15	14	13	13
1703	Major multiple trauma without brain or spinal cord injury M >=41.50 and M <50.50.	2.0140	1.5799	1.4362	1.3077	18	16	15	15
1704	Major multiple trauma without brain or spinal cord injury M >=36.50 and M <41.50.	2.2279	1.7478	1.5888	1.4466	17	19	17	16
1705	Major multiple trauma without brain or spinal cord injury M <36.50.	2.4447	1.9179	1.7434	1.5873	23	20	18	17
1801	Major multiple trauma with brain or spinal cord injury M >=67.50.	1.2381	0.9821	0.8820	0.8180	14	13	10	10
1802	Major multiple trauma with brain or spinal cord injury M >=55.50 and M <67.50.	1.5767	1.2506	1.1232	1.0418	13	15	12	12
1803	Major multiple trauma with brain or spinal cord injury M >=45.50 and M <55.50.	1.9345	1.5344	1.3781	1.2782	17	17	15	14
1804	Major multiple trauma with brain or spinal cord injury M >=40.50 and M <45.50.	2.2183	1.7596	1.5803	1.4657	22	19	17	16
1805	Major multiple trauma with brain or spinal cord injury M >=30.50 and M <40.50.	2.6487	2.1010	1.8869	1.7501	28	23	20	19
1806	Major multiple trauma with brain or spinal cord injury M <30.50.	3.4119	2.7063	2.4305	2.2543	37	29	22	25
1901	Guillain-Barré M >=66.50	1.2031	0.9356	0.9226	0.8738	14	12	13	10
1902	Guillain-Barré M >=51.50 and M <66.50	1.6292	1.2670	1.2493	1.1832	18	14	14	14
1903	Guillain-Barré M >=38.50 and M <51.50	2.5939	2.0172	1.9890	1.8838	25	21	21	21
1904	Guillain-Barré M <38.50	3.8189	2.9699	2.9284	2.7735	44	31	29	29
2001	Miscellaneous M >=66.50	1.2118	0.9833	0.9005	0.8282	11	11	10	9
2002	Miscellaneous M >=55.50 and M <66.50	1.4899	1.2090	1.1072	1.0182	13	13	12	11
2003	Miscellaneous M >=46.50 and M <55.50	1.7634	1.4309	1.3105	1.2052	15	15	14	13
2004	Miscellaneous M <46.50 and A >=77.50	1.9847	1.6104	1.4749	1.3564	18	17	15	15
2005	Miscellaneous M <46.50 and A <77.50	2.1338	1.7315	1.5858	1.4583	19	18	16	15
2101	Burns M >=52.50	1.8033	1.3711	1.1272	1.1272	17	13	13	14
2102	Burns M <52.50	2.4055	1.8289	1.5036	1.5036	20	21	15	15
5001	Short-stay cases, length of stay is 3 days or fewer				0.1643				2
5101	Expired, orthopedic, length of stay is 13 days or fewer.				0.7262				8
5102	Expired, orthopedic, length of stay is 14 days or more.				1.8015				19
5103	Expired, not orthopedic, length of stay is 15 days or fewer.				0.8454				8
5104	Expired, not orthopedic, length of stay is 16 days or more.				2.0896				20

Generally, updates to the CMG relative weights result in some increases and some decreases to the CMG relative weight values. Table 3 shows how we estimate that the application of the revisions for FY 2021 would affect particular CMG relative weight values, which would affect the overall distribution of payments within CMGs and tiers. We note that, because we implement the CMG relative weight revisions in a budget-neutral manner (as previously described), total estimated aggregate payments to IRFs for FY 2021 are not affected as a result of the CMG relative weight revisions. However, the revisions affect the distribution of payments within CMGs and tiers.

TABLE 3—DISTRIBUTIONAL EFFECTS OF THE CHANGES TO THE CMG RELATIVE WEIGHTS

Percentage change in CMG relative weights	Number of cases affected	Percentage of cases affected
Increased by 15% or more	64	0.0
Increased by between 5% and 15%	1,830	0.4
Changed by less than 5%	404,940	99.3
Decreased by between 5% and 15%	1,029	0.3
Decreased by 15% or more	11	0.0

As shown in Table 3, 99.3 percent of all IRF cases are in CMGs and tiers that would experience less than a 5 percent change (either increase or decrease) in the CMG relative weight value as a result of the revisions for FY 2021. The

changes in the average length of stay values for FY 2021, compared with the FY 2020 average length of stay values, are small and do not show any particular trends in IRF length of stay patterns.

The comments we received on our proposal to update the CMG relative weights and average length of stay values for FY 2021 are summarized below.

Comment: One commenter expressed concern about the decreases in some of the CMG relative weights and average length of stay values from the proposed updates, and questioned whether the FY 2019 data used to update these values for FY 2021 are reliable and valid. This commenter suggested that CMS freeze the CMG relative weights and average length of stay values at FY 2020 levels. This commenter also requested that CMS provide patient level data to allow stakeholders to analyze and model IRF payments and requested that CMS convene regularly scheduled TEPs to discuss and review payment model analyses. Additionally, this commenter also suggested that CMS should modify Table 3 to reflect the payment impacts of updating the CMG relative weights and requested that CMS provide actual changes in payment instead of changes in percentages, as this would provide more transparency related to the actual changes that IRFs may experience.

Response: The annual updates to the CMG relative weights, which include both increases and decreases to the CMG relative weights, are intended to ensure that IRF payments are aligned as closely as possible with the current costs of care. The relative weights for each of the CMGs and tiers represent the relative costliness of patients in those CMGs and tiers compared with patients in other CMGs and tiers. Additionally, the average length of stay values are only used to determine which cases qualify for the short-stay transfer policy and are not used to determine payments for the non-short-stay transfer cases.

We do not agree that it would be appropriate to freeze the CMG relative weights and average length of stay values at FY 2020 levels because this would require us to base them on older data. Updating these values based on the most recent available data ensures that the IRF case mix system is as reflective as possible of recent changes in IRF utilization and case mix, thereby ensuring that IRF payments appropriately reflect the relative costs of caring for IRF patients. Freezing these values at FY 2020 levels does not allow us to reflect any changes in IRF utilization and case mix that might have occurred over time. As stated in the FY 2021 IRF PPS proposed rule, the FY 2019 data is the most current and complete data available for updating payments.

We are confident that the data is valid and reliable for use in setting IRF PPS payment rates. CMS's contractor (Research Triangle Institute (RTI)) analyzed 2 year's worth of these data (FYs 2017 and 2018) to determine the extent to which the data could predict resource use in the IRF setting. RTI produced two reports containing their analyses and findings, ''Analyses to Inform the Potential use of Standardized Patient Assessment Data Elements in the Inpatient Rehabilitation Facility Prospective Payment System (PDF)'' (April 2018) and ''Analyses to Inform the Use of Standardized Patient Assessment Data Elements in the Inpatient Rehabilitation Facility Prospective Payment System (PDF)'' (March 2019). These reports are both available for download from the IRF PPS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/Research.*

As most recently discussed in detail in the FY 2020 IRF PPS final rule (84 FR 39054), we believe that these data accurately reflect the severity of the IRF patient population and the associated costs of caring for these patients in the IRF setting. Therefore, we believe it is appropriate to use the FY 2019 data to update the CMG relative weights and average length of stay values for FY 2021 to ensure the case mix system is as reflective as possible of recent changes in IRF utilization and case mix.

With regard to the request for patient-level data, we are unable to make patient assessment and claims data publicly available on the CMS website because these data contain information that can be used to identify individual Medicare beneficiaries. However, stakeholders may obtain these data through the standard CMS data acquisition and Data Use Agreement (DUA) processes. More information on CMS data acquisition process can be found on the CMS website at *https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/FilesForOrderGenInfo/index.*

In addition, with regard to the request for the regularly scheduled TEPs to obtain stakeholder input on the routine annual updates to the CMG relative weights and average length of stay values, we provide the methodology for these updates in the IRF PPS proposed rules each year to enable stakeholders to comment on the methodology and provide any suggestions for updating this methodology. Furthermore, we rarely make changes to this methodology, so we believe that stakeholders have had ample opportunity to comment on this methodology over the years, and we do not believe that there would be added value to convening a TEP to discuss this well-established methodology.

With regard to the comment regarding Table 3, we do not agree with the commenter's suggestion that utilizing changes in payment would more adequately project changes in the CMG relative weight values than examining changes in the relative weight values themselves. We would also like to note that the data files published in conjunction with each proposed and final rule contain estimated facility level payment impacts for each IRF in our analysis file to support transparency and assist providers in determining the payment implications of the policy updates contained in each rule. However, we appreciate the commenter's suggested revisions to Table 3 and will take this comment under advisement for future consideration.

After consideration of the comments we received, we are finalizing our proposal to update the CMG relative weights and average length of stay values for FY 2021, as shown in Table 2 of this final rule. These updates are effective for FY 2021, that is, for discharges occurring on or after October 1, 2020 and on or before September 30, 2021.

VI. FY 2021 IRF PPS Payment Update

A. Background

Section 1886(j)(3)(C) of the Act requires the Secretary to establish an increase factor that reflects changes over time in the prices of an appropriate mix of goods and services for which payment is made under the IRF PPS. According to section 1886(j)(3)(A)(i) of the Act, the increase factor shall be used to update the IRF prospective payment rates for each FY. Section 1886(j)(3)(C)(ii)(I) of the Act requires the application of the productivity adjustment described in section 1886(b)(3)(B)(xi)(II) of the Act. Thus, in the FY 2021 IRF PPS proposed rule (85 FR 22073 through 22074), we proposed to update the IRF PPS payments for FY 2021 by a market basket increase factor as required by section 1886(j)(3)(C) of the Act based upon the most current data available, with a productivity adjustment as required by section 1886(j)(3)(C)(ii)(I) of the Act.

We have utilized various market baskets through the years in the IRF PPS. For a discussion of these market

baskets, we refer readers to the FY 2016 IRF PPS final rule (80 FR 47046).

In FY 2016, we finalized the use of a 2012-based IRF market basket, using Medicare cost report (MCR) data for both freestanding and hospital-based IRFs (80 FR 47049 through 47068). Beginning with FY 2020, we finalized a rebased and revised IRF market basket to reflect a 2016 base year. The FY 2020 IRF PPS final rule (84 FR 39071 through 39086) contains a complete discussion of the development of the 2016-based IRF market basket.

B. FY 2021 Market Basket Update and Productivity Adjustment

For FY 2021 (that is, beginning October 1, 2020 and ending September 30, 2021), we proposed to update the IRF PPS payments by a market basket increase factor as required by section 1886(j)(3)(C) of the Act, with a productivity adjustment as required by section 1886(j)(3)(C)(ii)(I) of the Act. For FY 2021, we proposed to use the same methodology described in the FY 2020 IRF PPS final rule (84 FR 39085) to compute the FY 2021 market basket increase factor to update the IRF PPS base payment rate.

Consistent with historical practice, we proposed to estimate the market basket update for the IRF PPS based on IHS Global Inc.'s (IGI's) forecast using the most recent available data. IGI is a nationally-recognized economic and financial forecasting firm with which we contract to forecast the components of the market baskets and multifactor productivity (MFP). Based on IGI's fourth quarter 2019 forecast with historical data through the third quarter of 2019, the 2016-based IRF market basket increase factor for FY 2021 was projected to be 2.9 percent. Therefore, we proposed that the 2016-based IRF market basket increase factor for FY 2021 would be 2.9 percent. We proposed that if more recent data became available after the publication of the proposed rule and before the publication of this final rule (for example, a more recent estimate of the market basket update), we would use such data to determine the FY 2021 market basket update in this final rule.

According to section 1886(j)(3)(C)(i) of the Act, the Secretary shall establish an increase factor based on an appropriate percentage increase in a market basket of goods and services. Section 1886(j)(3)(C)(ii) of the Act then requires that, after establishing the increase factor for a FY, the Secretary shall reduce such increase factor for FY 2012 and each subsequent FY, by the productivity adjustment described in section 1886(b)(3)(B)(xi)(II) of the Act. Section 1886(b)(3)(B)(xi)(II) of the Act sets forth the definition of this productivity adjustment. The statute defines the productivity adjustment to be equal to the 10-year moving average of changes in annual economy-wide, private nonfarm business MFP (as projected by the Secretary for the 10-year period ending with the applicable FY, year, cost reporting period, or other annual period) (the ''MFP adjustment''). The U.S. Department of Labor's Bureau of Labor Statistics (BLS) publishes the official measure of private nonfarm business MFP. Please see *http://www.bls.gov/mfp* for the BLS historical published MFP data. A complete description of the MFP projection methodology is available on the CMS website at *https://www.cms.gov/Research-Statistics-Dataand-Systems/Statistics-Trends-andReports/MedicareProgramRatesStats/MarketBasketResearch.html.*

Using IGI's fourth quarter 2019 forecast, the 10-year moving average growth of MFP for FY 2021 was projected to be 0.4 percentage point. Thus, in accordance with section 1886(j)(3)(C) of the Act, we proposed to base the FY 2021 market basket update, which is used to determine the applicable percentage increase for the IRF payments, on IGI's fourth quarter 2019 forecast of the 2016-based IRF market basket. We proposed to then reduce this percentage increase by the estimated MFP adjustment for FY 2021 of 0.4 percentage point (the 10-year moving average growth of MFP for the period ending FY 2021 based on IGI's fourth quarter 2019 forecast). Therefore, the proposed FY 2021 IRF update was equal to 2.5 percent (2.9 percent market basket update less 0.4 percentage point MFP adjustment). Furthermore, we proposed that if more recent data became available after the publication of the proposed rule and before the publication of this final rule (for example, a more recent estimate of the market basket and/or MFP), we would use such data to determine the FY 2021 market basket update and MFP adjustment in this final rule.

Based on the more recent data available for this FY 2021 IRF final rule (that is, IGI's second quarter 2020 forecast of the 2016-based IRF market basket rate-of-increase with historical data through the first quarter of 2020), we estimate that the FY 2021 market basket update is 2.4 percent. We note that the fourth quarter 2019 forecast was developed prior to the economic impacts of the Coronavirus disease 2019 (COVID–19) pandemic. This lower update (2.4 percent) for FY 2021 relative to the proposed rule (2.9 percent) is primarily driven by slower anticipated compensation growth for both health-related and other occupations as labor markets are expected to be significantly impacted during the recession that started in February 2020 and throughout the anticipated recovery.

Based on the more recent data available for this FY 2021 IRF final rule, the current estimate of the 10-year moving average growth of MFP for FY 2021 is –0.1 percentage point. This MFP is based on the most recent macroeconomic outlook from IGI at the time of rulemaking (released June 2020) in order to reflect more current historical economic data. IGI produces monthly macroeconomic forecasts, which include projections of all of the economic series used to derive MFP. In contrast, IGI only produces forecasts of the more detailed price proxies used in the 2016-based IRF market basket on a quarterly basis. Therefore, IGI's second quarter 2020 forecast is the most recent forecast of the 2016-based IRF market basket update.

We note that it has typically been our practice to base the projection of the market basket price proxies and MFP in the final rule on the second quarter IGI forecast. For this FY 2021 IRF PPS final rule, we are using the IGI June macroeconomic forecast for MFP because it is a more recent forecast, and it is important to use more recent data during this period when economic trends, particularly employment and labor productivity, are notably uncertain because of the COVID–19 pandemic. Historically, the MFP adjustment based on the second quarter IGI forecast has been very similar to the MFP adjustment derived with IGI's June macroeconomic forecast. Substantial changes in the macroeconomic indicators in between monthly forecasts are atypical.

Given the unprecedented economic uncertainty as a result of the COVID–19 pandemic, the change in the IGI macroeconomic series used to derive MFP between the IGI second quarter 2020 IGI forecast and the IGI June 2020 macroeconomic forecast is significant. Therefore, we believe it is technically appropriate to use IGI's more recent June 2020 macroeconomic forecast to determine the MFP adjustment for the final rule as it reflects more current historical data. For comparison purposes, the 10-year moving average growth of MFP for FY 2021 is projected to be –0.1 percentage point based on IGI's June 2020 macroeconomic forecast compared to a FY 2021 projected 10-year moving average growth of MFP of 0.7 percentage point based on IGI's second quarter 2020 forecast. Mechanically subtracting the negative

10-year moving average growth of MFP from the IRF market basket increase factor using the data from the IGI June 2020 macroeconomic forecast would have resulted in a 0.1 percentage point increase in the FY 2021 IRF increase factor. However, under sections 1886(b)(3)(B)(xi)(II) and 1886(j)(3)(C) of the Act, the Secretary is required to reduce (not increase) the IRF market basket increase factor by changes in economy-wide productivity. Accordingly, we will be applying a 0.0 percentage point MFP adjustment to the IRF market basket increase factor. Therefore, the current estimate of the FY 2021 IRF increase factor is equal to 2.4 percent.

For FY 2021, the Medicare Payment Advisory Commission (MedPAC) recommends that we reduce IRF PPS payment rates by 5 percent. As discussed, and in accordance with sections 1886(j)(3)(C) and 1886(j)(3)(D) of the Act, the Secretary is required to update the IRF PPS payment rates for FY 2021 by an adjusted market basket increase factor which, based on the most recently available data, is 2.4 percent. Section 1886(j)(3)(C) of the Act does not provide the Secretary with the authority to apply a different update factor to IRF PPS payment rates for FY 2021.

The comments we received on the proposed market basket update and productivity adjustment are summarized below.

Comment: One commenter (MedPAC) stated that Medicare's current payment rates for IRFs appear to be more than adequate and therefore recommended that the Congress reduce the IRF payment rate by 5 percent for FY 2021. The commenter appreciated that CMS cited MedPAC's recommendation, even while noting that the Secretary does not have the authority to deviate from statutorily mandated updates.

Response: We appreciate MedPAC's interest in the IRF increase factor. However, we are required to update IRF PPS payments by the market basket update adjusted for productivity, as directed by section 1886(j)(3)(C) of the Act.

Comment: A few commenters supported the proposal to update the market basket and productivity amounts using the latest available data, and encouraged CMS to update these factors using the latest available data as part of the release of the IRF PPS Final Rule. One commenter stated that they were pleased to see an increase in payments to IRFs and further increases to rural providers.

Response: We appreciate the commenters' support for the proposed IRF annual payment update. As noted in the proposed rule, the final update would be based on a more recent forecast of the market basket and MFP adjustment if available. Therefore, incorporating an updated estimate of the market basket update and productivity adjustment in the final rule is consistent with what we have done historically for the IRF PPS as well as other Medicare PPSs as it reflects more current historical data as well as a revised outlook on the forecasted price pressures faced by providers for FY 2021 and inclusive of economic assumptions regarding the expected impacts from the COVID–19 pandemic.

Comment: Several commenters expressed concern about the continued application of the productivity adjustment to IRFs. One commenter stated that while they understand that CMS is bound by statute to reduce the market basket update by a productivity adjustment factor in accordance with the PPACA, they continue to be concerned that IRFs will not have the ability to generate additional productivity gains at a pace matching the productivity of the economy at large on an ongoing, consistent basis as contemplated by the PPACA. In addition, the commenter stated that the recent developments related to the public health emergency due to COVID–19 have resulted in further productivity challenges for IRFs. The commenter respectfully requested that CMS carefully monitor the impact that these productivity adjustments will have on the rehabilitation hospital sector, provide feedback to Congress as appropriate, and reduce the productivity adjustment. A few commenters recommended that CMS continue to research productivity factors for health care providers and hospitals, and partner with Congress to implement a more appropriate, health care specific productivity adjustment.

Response: We acknowledge the commenters' concerns regarding productivity growth at the economy-wide level and its application to IRFs. As the commenter acknowledges, section 1886(j)(3)(C)(ii)(I) of the Act requires the application of a productivity adjustment to the IRF PPS market basket increase factor. We will continue to monitor the impact of the payment updates on IRF Medicare payment adequacy as well as beneficiary access to care.

As stated in the FY 2020 IRF PPS final rule (84 FR 39087), we would be very interested in better understanding IRF-specific productivity; however, the data elements required to estimate IRF specific multi-factor productivity are not produced at the level of detail that would allow this analysis. We have estimated hospital-sector multi-factor productivity and have published the findings on the CMS website at *https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/ProductivityMemo2016.pdf.*

Comment: One commenter stated that while they appreciate this modest increase to the payment rate, it is insufficient to offset the impact of cost inflation, sequestration, and the financial impact IRFs are facing due to COVID–19. The commenter encouraged CMS to consider these additional impacts in the final rule.

Response: Since the publication of the FY 2021 IRF PPS proposed rule, we have incorporated more current historical data and revised forecasts provided by IGI that factor in expected impacts on price and wage pressures from the COVID–19 pandemic. By incorporating the most recent estimates available of the market basket update and productivity adjustment, we believe these data reflect the best available projection of input price inflation faced by IRFs for FY 2021, adjusted for economy-wide productivity, which is required by statute.

After consideration of the comments we received, we are finalizing a FY 2021 IRF update equal to 2.4 percent based on the most recent data available.

C. Labor-Related Share for FY 2021

Section 1886(j)(6) of the Act specifies that the Secretary is to adjust the proportion (as estimated by the Secretary from time to time) of IRFs' costs which are attributable to wages and wage-related costs, of the prospective payment rates computed under section 1886(j)(3) of the Act for area differences in wage levels by a factor (established by the Secretary) reflecting the relative hospital wage level in the geographic area of the rehabilitation facility compared to the national average wage level for such facilities. The labor-related share is determined by identifying the national average proportion of total costs that are related to, influenced by, or vary with the local labor market. We proposed to continue to classify a cost category as labor-related if the costs are labor-intensive and vary with the local labor market.

Based on our definition of the labor-related share and the cost categories in the 2016-based IRF market basket, we proposed to calculate the labor-related share for FY 2021 as the sum of the FY 2021 relative importance of Wages and Salaries, Employee Benefits, Professional Fees: Labor-related,

Administrative and Facilities Support Services, Installation, Maintenance, and Repair Services, All Other: Labor-related Services, and a portion of the Capital-Related relative importance from the 2016-based IRF market basket. For more details regarding the methodology for determining specific cost categories for inclusion in the 2016-based IRF labor-related share, see the FY 2020 IRF PPS final rule (84 FR 39087 through 39089).

The relative importance reflects the different rates of price change for these cost categories between the base year (2016) and FY 2021. Based on IGI's fourth quarter 2019 forecast of the 2016-based IRF market basket, the sum of the FY 2021 relative importance for Wages and Salaries, Employee Benefits, Professional Fees: Labor-related, Administrative and Facilities Support Services, Installation Maintenance & Repair Services, and All Other: Labor-related Services was 69.0 percent. We proposed that the portion of Capital-Related costs that are influenced by the local labor market is 46 percent. Since the relative importance for Capital-Related costs was 8.5 percent of the 2016-based IRF market basket for FY 2021, we proposed to take 46 percent of 8.5 percent to determine the labor-related share of Capital-Related costs for FY 2021 of 3.9 percent. Therefore, we proposed a total labor-related share for FY 2021 of 72.9 percent (the sum of 69.0 percent for the labor-related share of operating costs and 3.9 percent for the labor-related share of Capital-Related costs). We proposed that if more recent data became available after publication of the proposed rule and before the publication of this final rule (for example, a more recent estimate of the labor-related share), we would use such data to determine the FY 2021 IRF labor-related share in this final rule.

Based on IGI's second quarter 2020 forecast of the 2016-based IRF market basket, the sum of the FY 2021 relative importance for Wages and Salaries, Employee Benefits, Professional Fees: Labor-related, Administrative and Facilities Support Services, Installation Maintenance & Repair Services, and All Other: Labor-related Services is 69.1 percent. We proposed that the portion of Capital-Related costs that are influenced by the local labor market is 46 percent. Since the relative importance for Capital-Related costs is 8.5 percent of the 2016-based IRF market basket for FY 2021, we take 46 percent of 8.5 percent to determine the labor-related share of Capital-Related costs for FY 2021 of 3.9 percent. Therefore, the current estimate of the total labor-related share for FY 2021 is equal to 73.0 percent (the sum of 69.1 percent for the labor-related share of operating costs and 3.9 percent for the labor-related share of Capital-Related costs). Table 4 shows the current estimate of the FY 2021 labor-related share and the FY 2020 final labor-related share using the 2016-based IRF market basket relative importance.

TABLE 4—FY 2021 IRF LABOR-RELATED SHARE AND FY 2020 IRF LABOR-RELATED SHARE

	FY 2021 labor-related share [1]	FY 2020 final labor related share [2]
Wages and Salaries	48.6	48.1
Employee Benefits	11.4	11.4
Professional Fees: Labor-Related [3]	5.0	5.0
Administrative and Facilities Support Services	0.7	0.8
Installation, Maintenance, and Repair Services	1.6	1.6
All Other: Labor-Related Services	1.8	1.8
Subtotal	69.1	68.7
Labor-related portion of Capital-Related (46%)	3.9	4.0
Total Labor-Related Share	73.0	72.7

[1] Based on the 2016-based IRF market basket relative importance, IGI 2nd quarter 2020 forecast.
[2] Based on the 2016-based IRF market basket relative importance as published in the **Federal Register** (84 FR 39089).
[3] Includes all contract advertising and marketing costs and a portion of accounting, architectural, engineering, legal, management consulting, and home office contract labor costs.

The comment we received on the proposed labor related share for FY 2021 is summarized below.

Comment: One commenter opposed the proposed increase in the labor related share because it penalizes any facility that has a wage index less than 1.0. The commenter stated that across the country, there is a growing disparity between high-wage and low-wage states and stated that this proposal will continue to exacerbate that disparity and further harm hospitals in many rural and underserved communities. Unless there is sufficient data to support the labor related share increase, the commenter requested that the percentage from 2020 should carry forward into 2021.

Response: We appreciate the commenter's concern over the increase in the labor-related share; however, we believe it is technically appropriate to use the 2016-based IRF market basket relative importance to determine the labor-related share for FY 2021 as it is based on more recent data regarding price pressures and cost structure of IRFs. Our policy to use the most recent market basket to determine the labor-related share is a policy we have regularly adopted for the IRF PPS, (such as for the FY 2020 IRF PPS final rule (84 FR 39089)), as well as for other PPSs including but not limited to the Inpatient Psychiatric Facility PPS (84 FR 38446) and the Long-term care hospital PPS (84 FR 42642).

After consideration of the comment we received, we are finalizing the use of the sum of the FY 2021 relative importance for the labor-related cost categories based on the most recent forecast (IGI's second quarter 2020 forecast) of the 2016-based IRF market basket labor-related share cost weights as proposed.

D. Wage Adjustment for FY 2021

1. Background

Section 1886(j)(6) of the Act requires the Secretary to adjust the proportion of rehabilitation facilities' costs attributable to wages and wage-related costs (as estimated by the Secretary from time to time) by a factor (established by the Secretary) reflecting the relative hospital wage level in the geographic area of the rehabilitation facility compared to the national average wage level for those facilities. The Secretary is required to update the IRF PPS wage index on the basis of information available to the Secretary on the wages and wage-related costs to furnish

rehabilitation services. Any adjustment or updates made under section 1886(j)(6) of the Act for a FY are made in a budget-neutral manner.

For FY 2021, we proposed to maintain the policies and methodologies described in the FY 2020 IRF PPS final rule (84 FR 39090) related to the labor market area definitions and the wage index methodology for areas with wage data. Thus, we proposed to use the CBSA labor market area definitions and the FY 2021 pre-reclassification and pre-floor hospital wage index data. In accordance with section 1886(d)(3)(E) of the Act, the FY 2021 pre-reclassification and pre-floor hospital wage index is based on data submitted for hospital cost reporting periods beginning on or after October 1, 2016, and before October 1, 2017 (that is, FY 2017 cost report data).

The labor market designations made by the OMB include some geographic areas where there are no hospitals and, thus, no hospital wage index data on which to base the calculation of the IRF PPS wage index. We proposed to continue to use the same methodology discussed in the FY 2008 IRF PPS final rule (72 FR 44299) to address those geographic areas where there are no hospitals and, thus, no hospital wage index data on which to base the calculation for the FY 2021 IRF PPS wage index.

The comments we received on these proposals are summarized below.

Comment: One commenter recommended that CMS repeal the existing hospital wage index and recommended a number of changes to existing wage index policies, but acknowledged that legislative action may be necessary to accomplish some or all of the recommended changes.

Response: We appreciate the commenter's recommendations on implementing wage index reform and the recommended modifications to the IRF PPS wage index polices. We believe that such recommendations should be part of a broader discussion on wage index reform across Medicare payment systems. These recommendations will be taken into consideration while we continue to explore potential wage index alternatives in the future.

Comment: Some commenters who were supportive of using the concurrent year's IPPS wage data requested that CMS adopt IPPS wage index polices under the IRF PPS, including geographic reclassification, the imposition of a rural floor, and adjustments that address wage disparities between high and low wage index hospitals. Additionally, some commenters suggested that discrepancies in wage index policies between the IRF PPS and IPPS settings may impact access to care and competition for labor and requested that CMS ensure parity between wage index policies for all hospitals.

Response: We appreciate the commenters' support for the continued use of the concurrent year's IPPS wage data. However, we note that the IRF PPS does not account for geographic reclassification under sections 1886(d)(8) and (d)(10) of the Act, and does not apply the ''rural floor'' under section 4410 of the Balanced Budget Act of 1997 (BBA) (Pub. L. 105–33, enacted on August 5, 1997). Furthermore, as we do not have an IRF-specific wage index, we are unable to determine the degree, if any, to which a geographic reclassification adjustment or a rural floor policy under the IRF PPS would be appropriate. The rationale for our current wage index policies is fully described in the FY 2006 IRF PPS final rule (70 FR 47880, 47926 through 47928).

With regard to the comments requesting that we adopt similar adjustments to address wage disparities between high and low wage index IPPS hospitals under the IRF PPS, we would like to note that the IRF wage index is derived from IPPS wage data. As such, any effects of this policy on the wage data of IPPS hospitals will be extended to the IRF setting, as this data will be used to establish the wage index for IRFs in the future.

We appreciate the commenters' concerns regarding beneficiary access to care and competition for labor resulting from different applicable wage index policies across different settings of care. While CMS and other stakeholders have explored potential alternatives to the current wage index system in the past, no consensus has been achieved regarding how best to implement a replacement system. These concerns will be taken into consideration while we continue to explore potential wage index reforms and monitor IRF wage index policies. After consideration of the comments we received, we are finalizing our proposed policies as discussed above relating to the wage index.

2. Core-Based Statistical Areas (CBSAs) for the FY 2021 IRF Wage Index

a. Background

The wage index used for the IRF PPS is calculated using the pre-reclassification and pre-floor inpatient PPS (IPPS) wage index data and is assigned to the IRF on the basis of the labor market area in which the IRF is geographically located. IRF labor market areas are delineated based on the CBSAs established by the OMB. The current CBSA delineations (which were implemented for the IRF PPS beginning with FY 2016) are based on revised OMB delineations issued on February 28, 2013, in OMB Bulletin No. 13–01. OMB Bulletin No. 13–01 established revised delineations for Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas in the United States and Puerto Rico based on the 2010 Census, and provided guidance on the use of the delineations of these statistical areas using standards published in the June 28, 2010 **Federal Register** (75 FR 37246 through 37252). We refer readers to the FY 2016 IRF PPS final rule (80 FR 47068 through 47076) for a full discussion of our implementation of the OMB labor market area delineations beginning with the FY 2016 wage index.

Generally, OMB issues major revisions to statistical areas every 10 years, based on the results of the decennial census. However, OMB occasionally issues updates and revisions to the statistical areas to reflect the recognition of new areas or the addition of counties to existing areas. In some instances, these updates merge formerly separate areas, transfer components of an area from one area to another, or drop components from an area. On July 15, 2015, OMB issued OMB Bulletin No. 15–01, which provides minor updates to and supersedes OMB Bulletin No. 13–01 that was issued on February 28, 2013. The attachment to OMB Bulletin No. 15–01 provides detailed information on the update to statistical areas since February 28, 2013. The updates provided in OMB Bulletin No. 15–01 are based on the application of the 2010 Standards for Delineating Metropolitan and Micropolitan Statistical Areas to Census Bureau population estimates for July 1, 2012 and July 1, 2013.

In the FY 2018 IRF PPS final rule (82 FR 36250 through 36251), we adopted the updates set forth in OMB Bulletin No. 15–01 effective October 1, 2017, beginning with the FY 2018 IRF wage index. For a complete discussion of the adoption of the updates set forth in OMB Bulletin No. 15–01, we refer readers to the FY 2018 IRF PPS final rule. In the FY 2019 IRF PPS final rule (83 FR 38527), we continued to use the OMB delineations that were adopted beginning with FY 2016 to calculate the area wage indexes, with updates set forth in OMB Bulletin No. 15–01 that we adopted beginning with the FY 2018 wage index.

On August 15, 2017, OMB issued OMB Bulletin No. 17–01, which provided updates to and superseded OMB Bulletin No. 15–01 that was issued on July 15, 2015. The attachments to OMB Bulletin No. 17–01 provide detailed information on the update to statistical areas since July 15, 2015, and are based on the application of the 2010 Standards for Delineating Metropolitan and Micropolitan Statistical Areas to Census Bureau population estimates for July 1, 2014 and July 1, 2015. In the FY 2020 IRF PPS final rule (84 FR 39090 through 39091), we adopted the updates set forth in OMB Bulletin No. 17–01 effective October 1, 2019, beginning with the FY 2020 IRF wage index.

On April 10, 2018, OMB issued OMB Bulletin No. 18–03, which superseded the August 15, 2017 OMB Bulletin No. 17–01, and on September 14, 2018, OMB issued OMB Bulletin No. 18–04, which superseded the April 10, 2018 OMB Bulletin No. 18–03. These bulletins established revised delineations for Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and provided guidance on the use of the delineations of these statistical areas. A copy of this bulletin may be obtained at *https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf*. We note that on March 6, 2020 OMB issued OMB Bulletin 20–01 (available on the web at *https://www.whitehouse.gov/wp-content/uploads/2020/03/Bulletin-20-01.pdf*), but it was not issued in time for development of this rule.

While OMB Bulletin No. 18–04 is not based on new census data, there were some material changes based on the revised OMB delineations. The revisions OMB published on September 14, 2018 contain a number of significant changes. For example, under the new OMB delineations, there would be new CBSAs, urban counties that would become rural, rural counties that would become urban, and existing CBSAs that would be split apart. We discuss these changes in more detail in section VI.D.2.b. of this final rule. We proposed to adopt the updates to the OMB delineations announced in OMB Bulletin No. 18–04 effective beginning with FY 2021 under the IRF PPS. As noted previously, the March 6, 2020 OMB Bulletin 20–01 was not issued in time for development of this rule. While we do not believe that the minor updates included in OMB Bulletin 20–01 will impact the updates to the CBSA-based labor market area delineations, if appropriate, we will propose any updates from this bulletin in the FY 2022 IRF PPS proposed rule.

b. Implementation of New Labor Market Area Delineations

We believe it is important for the IRF PPS to use the latest labor market area delineations available as soon as is reasonably possible to maintain a more accurate and up-to-date payment system that reflects the reality of population shifts and labor market conditions. We further believe that using the most current delineations possible will increase the integrity of the IRF PPS wage index system by creating a more accurate representation of geographic variations in wage levels. Therefore, we proposed to adopt the new OMB delineations as described in the September 14, 2018 OMB Bulletin No. 18–04, effective beginning with the FY 2021 IRF PPS wage index. We proposed to use these new delineations to calculate area wage indexes in a manner that is generally consistent with the CBSA-based methodologies. As the adoption of the new OMB delineations may have significant negative impacts on the wage index values for certain geographic areas, we also proposed to apply a 5 percent cap on any decrease in an IRF's wage index from the IRF's wage index from the prior FY. This transition is discussed in more detail in section VI.D.3. of this final rule.

(1) Micropolitan Statistical Areas

OMB defines a ''Micropolitan Statistical Area'' as a CBSA associated with at least one urban cluster that has a population of at least 10,000, but less than 50,000 (75 FR 37252). We refer to these areas as Micropolitan Areas. Since FY 2006, we have treated Micropolitan Areas as rural and include hospitals located in Micropolitan Areas in each State's rural wage index. We refer the reader to the FY 2006 IRF PPS final rule for a complete discussion regarding treating Micropolitan Areas as rural. Therefore, in conjunction with our proposal to implement the new OMB labor market delineations beginning in FY 2021 and consistent with the treatment of Micropolitan Areas under the IPPS, we proposed to continue to treat Micropolitan Areas as ''rural'' and to include Micropolitan Areas in the calculation of the state's rural wage index.

(2) Urban Counties That Would Become Rural Under the New OMB Delineations

As previously discussed, we proposed to implement the new OMB labor market area delineations (based upon the 2010 Decennial Census data) beginning in FY 2021. Our analysis shows that a total of 34 counties (and county equivalents) that are currently considered part of an urban CBSA would be considered located in a rural area, beginning in FY 2021, under these new OMB delineations. Table 5 lists the 34 urban counties that will be rural with the implementation of the new OMB delineations.

TABLE 5—COUNTIES THAT WILL TRANSITION FROM URBAN TO RURAL STATUS

FIPS county code	County/county equivalent	State	Current CBSA	Current CBSA name
01127	Walker	AL	13820	Birmingham-Hoover, AL.
12045	Gulf	FL	37460	Panama City, FL.
13007	Baker	GA	10500	Albany, GA.
13235	Pulaski	GA	47580	Warner Robins, GA.
15005	Kalawao	HI	27980	Kahului-Wailuku-Lahaina, HI.
17039	De Witt	IL	14010	Bloomington, IL.
17053	Ford	IL	16580	Champaign-Urbana, IL.
18143	Scott	IN	31140	Louisville/Jefferson County, KY–IN.
18179	Wells	IN	23060	Fort Wayne, IN.
19149	Plymouth	IA	43580	Sioux City, IA–NE–SD.
20095	Kingman	KS	48620	Wichita, KS.
21223	Trimble	KY	31140	Louisville/Jefferson County, KY–IN.
22119	Webster	LA	43340	Shreveport-Bossier City, LA.
26015	Barry	MI	24340	Grand Rapids-Wyoming, MI.
26159	Van Buren	MI	28020	Kalamazoo-Portage, MI.
27143	Sibley	MN	33460	Minneapolis-St. Paul-Bloomington, MN–WI.

TABLE 5—COUNTIES THAT WILL TRANSITION FROM URBAN TO RURAL STATUS—Continued

FIPS county code	County/county equivalent	State	Current CBSA	Current CBSA name
28009	Benton	MS	32820	Memphis, TN–MS–AR.
29119	Mc Donald	MO	22220	Fayetteville-Springdale-Rogers, AR–MO.
30037	Golden Valley	MT	13740	Billings, MT.
31081	Hamilton	NE	24260	Grand Island, NE.
38085	Sioux	ND	13900	Bismarck, ND.
40079	Le Flore	OK	22900	Fort Smith, AR–OK.
45087	Union	SC	43900	Spartanburg, SC.
46033	Custer	SD	39660	Rapid City, SD.
47081	Hickman	TN	34980	Nashville-Davidson-Murfreesboro-Franklin, TN.
48007	Aransas	TX	18580	Corpus Christi, TX.
48221	Hood	TX	23104	Fort Worth-Arlington, TX.
48351	Newton	TX	13140	Beaumont-Port Arthur, TX.
48425	Somervell	TX	23104	Fort Worth-Arlington, TX.
51029	Buckingham	VA	16820	Charlottesville, VA.
51033	Caroline	VA	40060	Richmond, VA.
51063	Floyd	VA	13980	Blacksburg-Christiansburg-Radford, VA.
53013	Columbia	WA	47460	Walla Walla, WA.
53051	Pend Oreille	WA	44060	Spokane-Spokane Valley, WA.

We proposed that the wage data for all hospitals located in the counties listed above would now be considered rural, beginning in FY 2021, when calculating their respective State's rural wage index. This rural wage index value would also be used under the IRF PPS. We refer readers to section VI.D.3. of this final rule for a discussion of the wage index transition policy due to these changes.

(3) Rural Counties That Will Become Urban Under the New OMB Delineations

As previously discussed, we are implementing the new OMB labor market area delineations (based upon the 2010 Decennial Census data) beginning in FY 2021. Analysis of these OMB labor market area delineations shows that a total of 47 counties (and county equivalents) that are currently considered located in rural areas will now be considered located in urban areas under the new OMB delineations. Table 6 lists the 47 rural counties that will be urban with the implementation of the new OMB delineations.

TABLE 6—COUNTIES THAT WILL TRANSITION FROM RURAL TO URBAN STATUS

FIPS county code	County/county equivalent	State	Proposed CBSA code	Proposed CBSA name
01063	Greene	AL	46220	Tuscaloosa, AL.
01129	Washington	AL	33660	Mobile, AL.
05047	Franklin	AR	22900	Fort Smith, AR–OK.
12075	Levy	FL	23540	Gainesville, FL.
13259	Stewart	GA	17980	Columbus, GA–AL.
13263	Talbot	GA	17980	Columbus, GA–AL.
16077	Power	ID	38540	Pocatello, ID.
17057	Fulton	IL	37900	Peoria, IL.
17087	Johnson	IL	16060	Carbondale-Marion, IL.
18047	Franklin	IN	17140	Cincinnati, OH–KY–IN.
18121	Parke	IN	45460	Terre Haute, IN.
18171	Warren	IN	29200	Lafayette-West Lafayette, IN.
19015	Boone	IA	11180	Ames, IA.
19099	Jasper	IA	19780	Des Moines-West Des Moines, IA.
20061	Geary	KS	31740	Manhattan, KS.
21043	Carter	KY	26580	Huntington-Ashland, WV–KY–OH.
22007	Assumption	LA	12940	Baton Rouge, LA.
22067	Morehouse	LA	33740	Monroe, LA.
25011	Franklin	MA	44140	Springfield, MA.
26067	Ionia	MI	24340	Grand Rapids-Kentwood, MI.
26155	Shiawassee	MI	29620	Lansing-East Lansing, MI.
27075	Lake	MN	20260	Duluth, MN–WI.
28031	Covington	MS	25620	Hattiesburg, MS.
28051	Holmes	MS	27140	Jackson, MS.
28131	Stone	MS	25060	Gulfport-Biloxi, MS.
29053	Cooper	MO	17860	Columbia, MO.
29089	Howard	MO	17860	Columbia, MO.
30095	Stillwater	MT	13740	Billings, MT.
37007	Anson	NC	16740	Charlotte-Concord-Gastonia, NC–SC.
37029	Camden	NC	47260	Virginia Beach-Norfolk-Newport News, VA–NC.
37077	Granville	NC	20500	Durham-Chapel Hill, NC.
37085	Harnett	NC	22180	Fayetteville, NC.
39123	Ottawa	OH	45780	Toledo, OH.

TABLE 6—COUNTIES THAT WILL TRANSITION FROM RURAL TO URBAN STATUS—Continued

FIPS county code	County/county equivalent	State	Proposed CBSA code	Proposed CBSA name
45027	Clarendon	SC	44940	Sumter, SC.
47053	Gibson	TN	27180	Jackson, TN.
47161	Stewart	TN	17300	Clarksville, TN–KY.
48203	Harrison	TX	30980	Longview, TX.
48431	Sterling	TX	41660	San Angelo, TX.
51097	King And Queen	VA	40060	Richmond, VA.
51113	Madison	VA	47894	Washington-Arlington-Alexandria, DC–VA–MD–WV.
51175	Southampton	VA	47260	Virginia Beach-Norfolk-Newport News, VA–NC.
51620	Franklin City	VA	47260	Virginia Beach-Norfolk-Newport News, VA–NC.
54035	Jackson	WV	16620	Charleston, WV.
54065	Morgan	WV	25180	Hagerstown-Martinsburg, MD–WV.
55069	Lincoln	WI	48140	Wausau-Weston, WI.
72001	Adjuntas	PR	38660	Ponce, PR.
72083	Las Marias	PR	32420	Mayagüez, PR.

We proposed that when calculating the area wage index, beginning with FY 2021, the wage data for hospitals located in these counties would be included in their new respective urban CBSAs. Typically, providers located in an urban area receive a higher wage index value than or equal to providers located in their State's rural area. We refer readers to section VI.D.3. of this final rule for a discussion of the wage index transition policy.

(4) Urban Counties That Will Move to a Different Urban CBSA Under the New OMB Delineations

In certain cases, adopting the new OMB delineations involves a change only in CBSA name and/or number, while the CBSA continues to encompass the same constituent counties. For example, CBSA 19380 (Dayton, OH) will experience both a change to its number and its name, and become CBSA 19430 (Dayton-Kettering, OH), while all of its three constituent counties will remain the same. In other cases, only the name of the CBSA will be modified, and none of the currently assigned counties will be reassigned to a different urban CBSA. Table 7 shows the current CBSA code and our proposed CBSA code where we proposed to change either the name or CBSA number only. We are not discussing further in this section these changes because they are inconsequential changes with respect to the IRF PPS wage index.

TABLE 7—CURRENT CBSAS THAT WILL CHANGE CBSA CODE OR TITLE

Proposed CBSA code	Proposed CBSA title	Current CBSA code	Current CBSA title
10540	Albany-Lebanon, OR	10540	Albany, OR.
11500	Anniston-Oxford, AL	11500	Anniston-Oxford-Jacksonville, AL.
12060	Atlanta-Sandy Springs-Alpharetta, GA	12060	Atlanta-Sandy Springs-Roswell, GA.
12420	Austin-Round Rock-Georgetown, TX	12420	Austin-Round Rock, TX.
13460	Bend, OR	13460	Bend-Redmond, OR.
13980	Blacksburg-Christiansburg, VA	13980	Blacksburg-Christiansburg-Radford, VA.
14740	Bremerton-Silverdale-Port Orchard, WA	14740	Bremerton-Silverdale, WA.
15380	Buffalo-Cheektowaga, NY	15380	Buffalo-Cheektowaga-Niagara Falls, NY.
19430	Dayton-Kettering, OH	19380	Dayton, OH.
24340	Grand Rapids-Kentwood, MI	24340	Grand Rapids-Wyoming, MI.
24860	Greenville-Anderson, SC	24860	Greenville-Anderson-Mauldin, SC.
25060	Gulfport-Biloxi, MS	25060	Gulfport-Biloxi-Pascagoula, MS.
25540	Hartford-East Hartford-Middletown, CT	25540	Hartford-West Hartford-East Hartford, CT.
25940	Hilton Head Island-Bluffton, SC	25940	Hilton Head Island-Bluffton-Beaufort, SC.
28700	Kingsport-Bristol, TN–VA	28700	Kingsport-Bristol-Bristol, TN–VA.
31860	Mankato, MN	31860	Mankato-North Mankato, MN.
33340	Milwaukee-Waukesha, WI	33340	Milwaukee-Waukesha-West Allis, WI.
34940	Naples-Marco Island, FL	34940	Naples-Immokalee-Marco Island, FL.
35660	Niles, MI	35660	Niles-Benton Harbor, MI.
36084	Oakland-Berkeley-Livermore, CA	36084	Oakland-Hayward-Berkeley, CA.
36500	Olympia-Lacey-Tumwater, WA	36500	Olympia-Tumwater, WA.
38060	Phoenix-Mesa-Chandler, AZ	38060	Phoenix-Mesa-Scottsdale, AZ.
39150	Prescott Valley-Prescott, AZ	39140	Prescott, AZ.
23224	Frederick-Gaithersburg-Rockville, MD	43524	Silver Spring-Frederick-Rockville, MD.
44420	Staunton, VA	44420	Staunton-Waynesboro, VA.
44700	Stockton, CA	44700	Stockton-Lodi, CA.
45940	Trenton-Princeton, NJ	45940	Trenton, NJ.
46700	Vallejo, CA	46700	Vallejo-Fairfield, CA.
47300	Visalia, CA	47300	Visalia-Porterville, CA.
48140	Wausau-Weston, WI	48140	Wausau, WI.
48424	West Palm Beach-Boca Raton-Boynton Beach, FL	48424	West Palm Beach-Boca Raton-Delray Beach, FL.

In some cases, counties will shift between existing and new CBSAs, changing the constituent makeup of the CBSAs. We consider this type of change, where CBSAs are split into multiple new CBSAs, or a CBSA loses one or more counties to another urban CBSA, to be significant modifications.

Table 8 lists the urban counties that will move from one urban CBSA to another or to a newly proposed or modified CBSA due to the implementation of the new OMB delineations.

TABLE 8—URBAN COUNTIES THAT WILL MOVE TO A NEWLY PROPOSED OR MODIFIED CBSA

FIPS county code	County name	State	Current CBSA	Current CBSA name	Proposed CBSA code	Proposed CBSA name
17031	Cook	IL	16974	Chicago-Naperville-Arlington Heights, IL.	16984	Chicago-Naperville-Evanston, IL.
17043	Du Page	IL	16974	Chicago-Naperville-Arlington Heights, IL.	16984	Chicago-Naperville-Evanston, IL.
17063	Grundy	IL	16974	Chicago-Naperville-Arlington Heights, IL.	16984	Chicago-Naperville-Evanston, IL.
17093	Kendall	IL	16974	Chicago-Naperville-Arlington Heights, IL.	20994	Elgin, IL.
17111	Mc Henry	IL	16974	Chicago-Naperville-Arlington Heights, IL.	16984	Chicago-Naperville-Evanston, IL.
17197	Will	IL	16974	Chicago-Naperville-Arlington Heights, IL.	16984	Chicago-Naperville-Evanston, IL.
34023	Middlesex	NJ	35614	New York-Jersey City-White Plains, NY–NJ.	35154	New Brunswick-Lakewood, NJ.
34025	Monmouth	NJ	35614	New York-Jersey City-White Plains, NY–NJ.	35154	New Brunswick-Lakewood, NJ.
34029	Ocean	NJ	35614	New York-Jersey City-White Plains, NY–NJ.	35154	New Brunswick-Lakewood, NJ.
34035	Somerset	NJ	35084	Newark, NJ–PA	35154	New Brunswick-Lakewood, NJ.
36027	Dutchess	NY	20524	Dutchess County-Putnam County, NY.	39100	Poughkeepsie-Newburgh-Middletown, NY.
36071	Orange	NY	35614	New York-Jersey City-White Plains, NY–NJ.	39100	Poughkeepsie-Newburgh-Middletown, NY.
36079	Putnam	NY	20524	Dutchess County-Putnam County, NY.	35614	New York-Jersey City-White Plains, NY–NJ.
47057	Grainger	TN	28940	Knoxville, TN	34100	Morristown, TN.
54043	Lincoln	WV	26580	Huntington-Ashland, WV–KY–OH.	16620	Charleston, WV.
72055	Guanica	PR	38660	Ponce, PR	49500	Yauco, PR.
72059	Guayanilla	PR	38660	Ponce, PR	49500	Yauco, PR.
72111	Penuelas	PR	38660	Ponce, PR	49500	Yauco, PR.
72153	Yauco	PR	38660	Ponce, PR	49500	Yauco, PR.

If providers located in these counties move from one CBSA to another under the new OMB delineations, there may be impacts, both negative and positive, upon their specific wage index values. We refer readers to section VI.D.3. of this final rule for a discussion of the wage index transition policy due to these changes.

We believe the revisions to the CBSA-based labor market area delineations as established in OMB Bulletin 18–04 would ensure that the IRF PPS area wage level adjustment most appropriately accounts for and reflects the relative wage levels in the geographic area of the IRF. Therefore, we proposed to adopt the revisions to the CSBA based labor market area delineations under the IRF PPS, effective October 1, 2020. Accordingly, the proposed FY 2021 IRF PPS wage index values (which are available on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRF-Rules-and-Related-Files.html*) reflect the proposed revisions to the CBSA-based labor market area delineations.

Furthermore, consistent with the requirement at § 412.624(e)(1) that changes to area wage level adjustment are made in a budget neutral manner, we proposed to adopt these revisions to the CSBA based labor market area delineations in a budget neutral manner. The methodology for calculating the budget neutrality factor is discussed in section VI.D.4. of this final rule.

The comments we received on the proposal to adopt the new OMB delineations, effective beginning with the FY 2021 IRF PPS wage index are summarized below.

Comment: Commenters were generally supportive of the adoption of the new delineations; however, two commenters disagreed with the creation of the new ''New Brunswick-Lakewood, NJ'' CBSA and requested that CMS delay implementing these revisions to the CBSAs until after the 2020 decennial census data is available.

Response: We appreciate the commenters' concerns regarding the impact of implementing the New Brunswick-Lakewood, NJ CBSA designation on their specific counties. While we understand the commenters' concern regarding the potential financial impact, we believe that implementing the revised OMB delineations will create more accurate representations of labor market areas and result in IRF wage index values being more representative of the actual costs of labor in a given area. Moreover, to the extent that providers exist in a labor market area experiencing a decline in relation to the revised OMB delineations, this would mean that these providers were previously being paid in excess of what their reported wage and labor data would suggest is appropriate. We believe that the OMB standards for delineating Metropolitan and Micropolitan Statistical Areas are

appropriate for determining wage area differences and that the values computed under the revised delineations will result in more appropriate payments to providers by more accurately accounting for and reflecting the differences in area wage levels. Therefore, we believe that it is appropriate to implement the new OMB delineations without delay.

After consideration of the comments we received, we are finalizing our proposal to adopt the revised OMB delineations contained in OMB Bulletin 18–04.

3. Transition Policy

Overall, we believe that our proposal to adopt the revised OMB delineations for FY 2021 would result in wage index values being more representative of the actual costs of labor in a given area. However, we also recognize that approximately 5 percent of IRFs would experience decreases in their area wage index values as a result of our proposal to adopt the revised OMB delineations. We also realize that many IRFs would have higher area wage index values under our proposal.

To mitigate the potential impacts of revisions to the OMB delineations on IRFs, we have in the past provided for transition periods when adopting changes that have significant payment implications, particularly large negative impacts. For example, we proposed and finalized budget neutral transition policies to help mitigate negative impacts on IRFs following the adoption of the new CBSA delineations based on the 2010 decennial census data in the FY 2016 IRF PPS final rule (80 FR 47035). Specifically, we implemented a 1-year blended wage index for all IRFs due to our adoption of the revised delineations. This required calculating and comparing two wage indexes for each IRF since that blended wage index was computed as the sum of 50 percent of the FY 2016 IRF PPS wage index values under the FY 2015 CBSA delineations and 50 percent of the FY 2016 IRF PPS wage index values under the FY 2016 new OMB delineations. While we believe that using the new OMB delineations would create a more accurate payment adjustment for differences in area wage levels, we also recognize that adopting such changes may cause some short-term instability in IRF PPS payments, in particular for IRFs that would be negatively impacted by the proposed adoption of the updates to the OMB delineations. For example, IRF's currently located in CBSA 35614 (New York-Jersey City-White Plains, NY–NJ) that would be located in new CBSA 35154 (New Brunswick-Lakewood, NJ) under the proposed changes to the CBSA-based labor market area delineations would experience a nearly 17 percent decrease in the wage index as a result of the proposed change. Therefore, consistent with past practice we proposed a transition policy to help mitigate any significant negative impacts that IRFs may experience due to our proposal to adopt the revised OMB delineations under the IRF PPS. Specifically, for FY 2021 as a transition, we proposed to apply a 5 percent cap on any decrease in an IRF's wage index from the IRF's wage index from the prior FY. This transition would allow the effects of our proposed adoption of the revised OMB delineations to be phased in over 2 years, where the estimated reduction in an IRF's wage index would be capped at 5 percent in FY 2021 (that is, no cap would be applied to any reductions in the wage index for the second year (FY 2022)). We believe a 5 percent cap on the overall decrease in an IRF's wage index value would be an appropriate transition as it would effectively mitigate any significant decreases in an IRF's wage index for FY 2021.

Furthermore, consistent with the requirement at § 412.624(e)(1) that changes to area wage level adjustment are made in a budget neutral manner, we proposed that this transitional wage index would not result in any change in estimated aggregate IRF PPS payments by applying a budget neutrality factor to the standard payment conversion factor. Our proposed methodology for calculating this budget neutrality factor is discussed in section VI.D.4. of this final rule.

The comments we received on our proposed transition methodology to utilize a 5 percent cap on wage index decreases for FY 2021 are summarized below.

Comment: Commenters were generally supportive of the proposed 5 percent cap transition policy to mitigate the impact of changes to the wage index values. A few commenters suggested the limit should apply to both increases and decreases in the wage index. Commenters also suggested a cap should be applied every year. One commenter requested that CMS incorporate a blended wage index into the transition, consisting of 50 percent of the FY 2020 delineations and 50 percent of the FY 2021 delineations.

Response: We appreciate the comments supporting this transition methodology. Further, we appreciate the commenters' suggestion that the cap on wage index movements of more than 5 percent should also be applied to increases in the wage index. However, as we discussed in the proposed rule, the purpose of the proposed transition policy, as well as those we have implemented in the past, is to help mitigate the significant negative impacts of certain wage index changes, not to curtail the positive impacts of such changes, and thus we do not believe it would be appropriate to apply the 5 percent cap on wage index increases as well. Additionally, we believe that implementing a cap on wage index values each year would undermine the goal of the wage index, which is to improve the accuracy of IRF payments, and would only serve to further delay improving the accuracy of IRF payments. Therefore, while we believe that a transition is necessary to help mitigate some of the negative impact from the revised OMB delineations, we also believe this mitigation must be balanced against the importance of ensuring accurate payments.

Additionally, the use of a 50/50 blended wage index transition would affect all IRF providers. We believe it would be more appropriate to allow IRFs that would experience an increase in their wage index value to receive the full benefit of their increased wage index value, which is intended to reflect accurately the higher labor costs in that area. The utilization of a cap on negative impacts restricts the transition to only those with negative impacts and allows providers who would experience positive impacts to receive the full amount of their wage index increase. As such, we believe a 5 percent cap on the overall decrease in an IRF's wage index value would be an appropriate transition as it would effectively mitigate any significant decreases in an IRF's wage index for FY 2021.

Comment: One commenter requested that CMS provide the data used to calculate the new wage indices.

Response: The hospital wage data used to derive the IRF PPS wage index are available from the CMS IPPS wage index websites for each respective FY, which can be accessed from *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/index.* After consideration of the comments we received, we are finalizing the proposed transition methodology, which applies a 5 percent cap on any decrease in an IRF's wage index for FY 2021 from the IRF's wage index in FY 2020. This transitional wage index will not result in any change in estimated aggregate IRF PPS payments by applying a budget neutrality factor to the standard payment conversion factor. The methodology for calculating this budget

neutrality factor is discussed in section VI.D.4. of this final rule.

4. Wage Adjustment

To calculate the wage-adjusted facility payment for the payment rates set forth in this final rule, we multiply the unadjusted Federal payment rate for IRFs by the FY 2021 labor-related share based on the 2016-based IRF market basket relative importance (73.0 percent) to determine the labor-related portion of the standard payment amount. A full discussion of the calculation of the labor-related share is located in section VI.C. of this final rule. We then multiply the labor-related portion by the applicable IRF wage index. The wage index tables are available on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRF-Rules-and-Related-Files.html.*

Adjustments or updates to the IRF wage index made under section 1886(j)(6) of the Act must be made in a budget-neutral manner. We proposed to calculate a budget-neutral wage adjustment factor as established in the FY 2004 IRF PPS final rule (68 FR 45689), codified at § 412.624(e)(1), as described in the steps below. We proposed to use the listed steps to ensure that the FY 2021 IRF standard payment conversion factor reflects the update to the wage indexes (based on the FY 2017 hospital cost report data and taking into account the revisions to the OMB delineations and the transition policy) and the update to the labor-related share, in a budget-neutral manner:

Step 1. Calculate the total amount of estimated IRF PPS payments using the labor-related share and the wage indexes from FY 2020 (as published in the FY 2020 IRF PPS final rule (84 FR 39054)).

Step 2. Calculate the total amount of estimated IRF PPS payments using the FY 2021 wage index values (based on updated hospital wage data and taking into account the changes to geographic labor market area delineations and the transition policy) and the FY 2021 labor-related share of 73.0 percent.

Step 3. Divide the amount calculated in step 1 by the amount calculated in step 2. The resulting quotient is the FY 2021 budget-neutral wage adjustment factor of 1.0013.

Step 4. Apply the budget neutrality factor from step 3 to the FY 2021 IRF PPS standard payment amount after the application of the increase factor to determine the FY 2021 standard payment conversion factor.

We discuss the calculation of the standard payment conversion factor for FY 2021 in section VI.E. of this final rule.

We did not receive any comments on the proposed budget-neutral wage adjustment factor for FY 2021. Therefore, we are finalizing a budget-neutral wage adjustment factor of 1.0013 for FY 2021.

E. Description of the IRF Standard Payment Conversion Factor and Payment Rates for FY 2021

To calculate the standard payment conversion factor for FY 2021, as illustrated in Table 5, we begin by applying the increase factor for FY 2021, as adjusted in accordance with sections 1886(j)(3)(C) of the Act, to the standard payment conversion factor for FY 2020 ($16,489). Applying the 2.4 percent increase factor for FY 2021 to the standard payment conversion factor for FY 2020 of $16,489 yields a standard payment amount of $16,885. Then, we apply the budget neutrality factor for the FY 2021 wage index (taking into account the revisions to the CBSA delineations and the transition policy), and labor-related share of 1.0013, which results in a standard payment amount of $16,907. We next apply the budget neutrality factor for the CMG relative weights of 0.9970, which results in the standard payment conversion factor of $16,856 for FY 2021.

We did not receive any comments on the proposed calculation of the standard payment conversion factor for FY 2021. Therefore, we are finalizing the IRF standard payment conversion factor of $16,856 for FY 2021.

TABLE 9—CALCULATIONS TO DETERMINE THE FY 2021 STANDARD PAYMENT CONVERSION FACTOR

Explanation for adjustment	Calculations
Standard Payment Conversion Factor for FY 2020	$16,489
Market Basket Increase Factor for FY 2021 (2.4 percent), reduced by 0.0 percentage point for the productivity adjustment as required by section 1886(j)(3)(C)(ii)(I) of the Act	× 1.024
Budget Neutrality Factor for the Updates to the Wage Index and Labor-Related Share	× 1.0013
Budget Neutrality Factor for the Revisions to the CMG Relative Weights	× 0.9970
FY 2020 Standard Payment Conversion Factor	= 16,856

After the application of the CMG relative weights described in section V. of this final rule to the FY 2021 standard payment conversion factor ($16,856), the resulting unadjusted IRF prospective payment rates for FY 2021 are shown in Table 10.

TABLE 10—FY 2021 PAYMENT RATES

CMG	Payment rate tier 1	Payment rate tier 2	Payment rate tier 3	Payment rate no comorbidity
0101	$ 17,385.28	$ 14,863.62	$ 13,791.58	$ 13,198.25
0102	22,206.09	18,983.23	17,616.21	16,857.69
0103	28,395.62	24,274.33	22,524.67	21,557.14
0104	36,891.04	31,537.58	29,263.70	28,006.24
0105	41,851.76	35,778.55	33,199.58	31,773.56
0106	48,081.74	41,103.36	38,141.76	36,501.67
0201	19,375.97	15,842.95	14,231.52	13,301.07
0202	24,340.06	19,901.88	17,877.47	16,709.35
0203	29,347.98	23,994.52	21,553.77	20,146.29
0204	36,525.27	29,865.46	26,826.32	25,074.99
0205	46,133.19	37,718.67	33,882.25	31,669.05
0301	20,670.51	16,756.55	15,482.24	14,351.20

TABLE 10—FY 2021 PAYMENT RATES—Continued

CMG	Payment rate tier 1	Payment rate tier 2	Payment rate tier 3	Payment rate no comorbidity
0302	26,482.46	21,469.49	19,836.14	18,386.52
0303	31,702.76	25,700.34	23,745.05	22,010.56
0304	35,567.85	28,832.19	26,640.91	24,694.04
0305	38,851.39	31,495.44	29,100.20	26,972.97
0401	23,065.75	19,573.19	17,631.38	16,380.66
0402	30,015.48	25,469.42	22,942.70	21,316.10
0403	36,022.96	30,568.36	27,535.96	25,582.35
0404	60,993.44	51,758.03	46,623.70	43,316.55
0405	46,259.61	39,254.25	35,360.52	32,852.34
0406	60,629.35	51,447.88	46,343.89	43,056.97
0407	69,227.59	58,743.16	52,917.73	49,162.21
0501	22,076.30	17,156.04	16,196.93	14,959.70
0502	27,429.77	21,316.10	20,124.38	18,588.80
0503	31,856.15	24,756.41	23,372.53	21,587.48
0504	37,936.11	29,482.83	27,834.31	25,708.77
0505	49,492.59	38,463.71	36,312.88	33,541.75
0601	23,047.21	17,349.88	16,264.35	14,782.71
0602	28,682.17	21,590.85	20,240.68	18,398.32
0603	34,072.72	25,648.09	24,043.40	21,853.80
0604	39,537.43	29,762.64	27,900.05	25,359.85
0701	21,024.49	17,049.84	16,156.48	14,851.82
0702	26,286.93	21,317.78	20,201.92	18,568.57
0703	31,952.23	25,912.73	24,555.82	22,570.18
0704	36,510.10	29,609.25	28,058.50	25,789.68
0801	18,993.34	15,285.02	13,688.76	12,749.88
0802	22,330.83	17,970.18	16,094.11	14,990.04
0803	24,945.19	20,073.81	17,978.61	16,744.75
0804	28,749.59	23,136.55	20,721.08	19,298.43
0805	33,499.61	26,959.49	24,144.53	22,487.59
0901	20,414.30	16,267.73	15,394.58	13,944.97
0902	25,415.48	20,252.48	19,166.96	17,363.37
0903	29,909.29	23,832.70	22,556.70	20,432.84
0904	34,340.73	27,365.72	25,899.24	23,460.18
1001	21,845.38	18,310.67	16,431.23	15,177.14
1002	26,986.46	22,619.07	20,298.00	18,748.93
1003	31,534.20	26,431.89	23,719.76	21,907.74
1004	37,165.79	31,151.57	27,955.68	25,820.02
1101	21,911.11	19,524.30	17,053.22	16,535.74
1102	29,273.82	26,086.35	22,784.26	22,093.16
1103	32,894.48	29,312.58	25,600.89	24,825.52
1201	24,021.49	16,004.77	16,004.77	14,695.06
1202	30,184.04	20,109.21	20,109.21	18,464.06
1203	35,085.76	23,374.22	23,374.22	21,464.43
1204	36,875.87	24,567.62	24,567.62	22,558.38
1301	19,008.51	15,694.62	14,899.02	13,226.90
1302	26,007.12	21,474.54	20,385.65	18,098.29
1303	29,980.08	24,754.72	23,498.95	20,862.67
1304	34,752.02	28,695.65	27,240.98	24,183.30
1305	35,188.59	29,054.69	27,581.47	24,486.71
1401	19,310.23	15,831.16	14,288.83	12,785.28
1402	24,257.47	19,888.39	17,951.64	16,062.08
1403	29,454.17	24,147.91	21,796.49	19,502.39
1404	34,595.25	28,363.59	25,600.89	22,907.30
1501	21,752.67	17,420.68	16,274.47	15,612.03
1502	26,822.95	21,481.29	20,068.75	19,251.24
1503	31,143.15	24,940.14	23,300.05	22,352.74
1504	36,107.24	28,914.78	27,015.11	25,916.10
1601	16,668.90	16,668.90	15,033.87	13,532.00
1602	18,673.08	18,673.08	16,840.83	15,156.92
1603	22,819.65	22,819.65	20,579.49	18,523.06
1604	28,994.01	28,994.01	26,148.71	23,536.03
1701	23,446.70	18,393.27	16,719.47	15,224.34
1702	28,634.97	22,465.68	20,421.04	18,593.85
1703	33,947.98	26,630.79	24,208.59	22,042.59
1704	37,553.48	29,460.92	26,780.81	24,383.89
1705	41,207.86	32,328.12	29,386.75	26,755.53
1801	20,869.41	16,554.28	14,866.99	13,788.21
1802	26,576.86	21,080.11	18,932.66	17,560.58
1803	32,607.93	25,863.85	23,229.25	21,545.34
1804	37,391.66	29,659.82	26,637.54	24,705.84
1805	44,646.49	35,414.46	31,805.59	29,499.69

TABLE 10—FY 2021 PAYMENT RATES—Continued

CMG	Payment rate tier 1	Payment rate tier 2	Payment rate tier 3	Payment rate no comorbidity
1806	57,510.99	45,617.39	40,968.51	37,998.48
1901	20,279.45	15,770.47	15,551.35	14,728.77
1902	27,461.80	21,356.55	21,058.20	19,944.02
1903	43,722.78	34,001.92	33,526.58	31,753.33
1904	64,371.38	50,060.63	49,361.11	46,750.12
2001	20,426.10	16,574.50	15,178.83	13,960.14
2002	25,113.75	20,378.90	18,662.96	17,162.78
2003	29,723.87	24,119.25	22,089.79	20,314.85
2004	33,454.10	27,144.90	24,860.91	22,863.48
2005	35,967.33	29,186.16	26,730.24	24,581.10
2101	30,396.42	23,111.26	19,000.08	19,000.08
2102	40,547.11	30,827.94	25,344.68	25,344.68
5001	-	-	-	2,769.44
5101	-	-	-	12,240.83
5102	-	-	-	30,366.08
5103	-	-	-	14,250.06
5104	-	-	-	35,222.30

F. Example of the Methodology for Adjusting the Prospective Payment Rates

Table 11 illustrates the methodology for adjusting the prospective payments (as described in section VI. of this final rule). The following examples are based on two hypothetical Medicare beneficiaries, both classified into CMG 0104 (without comorbidities). The unadjusted prospective payment rate for CMG 0104 (without comorbidities) appears in Table 10.

Example: One beneficiary is in Facility A, an IRF located in rural Spencer County, Indiana, and another beneficiary is in Facility B, an IRF located in urban Harrison County, Indiana. Facility A, a rural non-teaching hospital has a Disproportionate Share Hospital (DSH) percentage of 5 percent (which would result in a LIP adjustment of 1.0156), a wage index of 0.8354, and a rural adjustment of 14.9 percent. Facility B, an urban teaching hospital, has a DSH percentage of 15 percent (which would result in a LIP adjustment of 1.0454 percent), a wage index of 0.8697, and a teaching status adjustment of 0.0784.

To calculate each IRF's labor and non-labor portion of the prospective payment, we begin by taking the unadjusted prospective payment rate for CMG 0104 (without comorbidities) from Table 10. Then, we multiply the labor-related share for FY 2021 (73.0 percent) described in section VI.C. of this final rule by the unadjusted prospective payment rate. To determine the non-labor portion of the prospective payment rate, we subtract the labor portion of the Federal payment from the unadjusted prospective payment.

To compute the wage-adjusted prospective payment, we multiply the labor portion of the Federal payment by the appropriate wage index located in the applicable wage index table. This table is available on the CMS website at *https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRF-Rules-and-Related-Files.html.*

The resulting figure is the wage-adjusted labor amount. Next, we compute the wage-adjusted Federal payment by adding the wage-adjusted labor amount to the non-labor portion of the Federal payment.

Adjusting the wage-adjusted Federal payment by the facility-level adjustments involves several steps. First, we take the wage-adjusted prospective payment and multiply it by the appropriate rural and LIP adjustments (if applicable). Second, to determine the appropriate amount of additional payment for the teaching status adjustment (if applicable), we multiply the teaching status adjustment (0.0784, in this example) by the wage-adjusted and rural-adjusted amount (if applicable). Finally, we add the additional teaching status payments (if applicable) to the wage, rural, and LIP-adjusted prospective payment rates. Table 11 illustrates the components of the adjusted payment calculation.

TABLE 11—EXAMPLE OF COMPUTING THE FY 2021 IRF PROSPECTIVE PAYMENT

Steps		Rural facility A (Spencer Co., IN)		Urban facility B (Harrison Co., IN)	
1	Unadjusted Payment		$28,006.24		$28,006.24
2	Labor Share	×	0.730	×	0.730
3	Labor Portion of Payment	=	$20,444.56	=	$20,444.56
4	CBSA-Based Wage Index\	×	0.8354	×	0.8697
5	Wage-Adjusted Amount	=	$17,079.38	=	$17,780.63
6	Non-Labor Amount	+	$7,561.68	+	$7,561.68
7	Wage-Adjusted Payment	=	$24,641.06	=	$25,342.31
8	Rural Adjustment	×	1.149	×	1.000
9	Wage- and Rural-Adjusted Payment	=	$28,312.58	=	$25,342.31
10	LIP Adjustment	×	1.0156	×	1.0454
11	Wage-, Rural- and LIP-Adjusted Payment	=	$28,754.25	=	$26,492.85
12	Wage- and Rural-Adjusted Payment		$28,312.59		$25,342.31
13	Teaching Status Adjustment	×	0	×	0.0784
14	Teaching Status Adjustment Amount	=	$0.00	=	$1,986.84
15	Wage-, Rural-, and LIP-Adjusted Payment	+	$28,754.25	+	$26,492.85
16	Total Adjusted Payment	=	$28,754.25	=	$28,479.69

Thus, the adjusted payment for Facility A would be $28,754.25, and the adjusted payment for Facility B would be $28,479.69.

VII. Update to Payments for High-Cost Outliers Under the IRF PPS for FY 2021

A. Update to the Outlier Threshold Amount for FY 2021

Section 1886(j)(4) of the Act provides the Secretary with the authority to make payments in addition to the basic IRF prospective payments for cases incurring extraordinarily high costs. A case qualifies for an outlier payment if the estimated cost of the case exceeds the adjusted outlier threshold. We calculate the adjusted outlier threshold by adding the IRF PPS payment for the case (that is, the CMG payment adjusted by all of the relevant facility-level adjustments) and the adjusted threshold amount (also adjusted by all of the relevant facility-level adjustments). Then, we calculate the estimated cost of a case by multiplying the IRF's overall CCR by the Medicare allowable covered charge. If the estimated cost of the case is higher than the adjusted outlier threshold, we make an outlier payment for the case equal to 80 percent of the difference between the estimated cost of the case and the outlier threshold.

In the FY 2002 IRF PPS final rule (66 FR 41362 through 41363), we discussed our rationale for setting the outlier threshold amount for the IRF PPS so that estimated outlier payments would equal 3 percent of total estimated payments. For the FY 2002 IRF PPS final rule, we analyzed various outlier policies using 3, 4, and 5 percent of the total estimated payments, and we concluded that an outlier policy set at 3 percent of total estimated payments would optimize the extent to which we could reduce the financial risk to IRFs of caring for high-cost patients, while still providing for adequate payments for all other (non-high cost outlier) cases.

Subsequently, we updated the IRF outlier threshold amount in the FYs 2006 through 2020 IRF PPS final rules and the FY 2011 and FY 2013 notices (70 FR 47880, 71 FR 48354, 72 FR 44284, 73 FR 46370, 74 FR 39762, 75 FR 42836, 76 FR 47836, 76 FR 59256, 77 FR 44618, 78 FR 47860, 79 FR 45872, 80 FR 47036, 81 FR 52056, 82 FR 36238, 83 FR 38514, and 84 FR 39054, respectively) to maintain estimated outlier payments at 3 percent of total estimated payments. We also stated in the FY 2009 final rule (73 FR 46370 at 46385) that we would continue to analyze the estimated outlier payments for subsequent years and adjust the outlier threshold amount as appropriate to maintain the 3 percent target.

To update the IRF outlier threshold amount for FY 2021, we proposed to use FY 2019 claims data and the same methodology that we used to set the initial outlier threshold amount in the FY 2002 IRF PPS final rule (66 FR 41316 and 41362 through 41363), which is also the same methodology that we used to update the outlier threshold amounts for FYs 2006 through 2020. The outlier threshold is calculated by simulating aggregate payments and using an iterative process to determine a threshold that results in outlier payments being equal to 3 percent of total payments under the simulation. To determine the outlier threshold for FY 2021, we estimate the amount of FY 2021 IRF PPS aggregate and outlier payments using the most recent claims available (FY 2019) and the proposed FY 2021 standard payment conversion factor, labor-related share, and wage indexes, incorporating any applicable budget-neutrality adjustment factors. The outlier threshold is adjusted either up or down in this simulation until the estimated outlier payments equal 3 percent of the estimated aggregate payments. Based on an analysis of the preliminary data used for the proposed rule, we estimated that IRF outlier payments as a percentage of total estimated payments would be approximately 2.6 percent in FY 2020. Therefore, we proposed to update the outlier threshold amount from $9,300 for FY 2020 to $8,102 for FY 2021 to maintain estimated outlier payments at approximately 3 percent of total estimated aggregate IRF payments for FY 2021.

We note that, as we typically do, we updated our data between the FY 2021 IRF PPS proposed and final rules to ensure that we use the most recent available data in calculating IRF PPS payments. This updated data includes a more complete set of claims for FY 2019. Based on our analysis using this updated data, we continue to estimate that IRF outlier payments as a percentage of total estimated payments are approximately 2.6 percent in FY 2020. Therefore, we will update the outlier threshold amount from $9,300 for FY 2020 to $7,906 for FY 2021 to account for the increases in IRF PPS payments and estimated costs and to maintain estimated outlier payments at approximately 3 percent of total estimated aggregate IRF payments for FY 2021.

The comments we received on the update to the FY 2021 outlier threshold amount to maintain estimated outlier payments at approximately 3 percent of total estimated IRF payments are summarized below.

Comment: Commenters were generally supportive of the update to the outlier threshold. One commenter noted support for expanding the outlier pool from 3 percent to 5 percent of aggregate IRF payments, while other commenters stated that we should reduce the outlier pool below 3 percent and still others supported us maintaining the pool at 3 percent.

Response: We thank the commenters for their support of the update to the outlier threshold. We continue to believe that maintaining the outlier pool at 3 percent of aggregate IRF payments optimizes the extent to which we can reduce financial risk to IRFs of caring for high-cost patients, while still providing for adequate payments for all other non-high cost outlier cases. We refer readers to the FY 2002 IRF PPS final rule (66 FR 41316, 41362 through 41363) for more information regarding the rationale for setting the outlier threshold amount for the IRF PPS so that estimated outlier payments would equal 3 percent of total estimated payments.

Comment: Commenters suggested that CMS pay the full 3 percent outlier pool each year and recommended that CMS include historical outlier reconciliation dollars in the calculation of the fixed loss threshold under the IRF PPS. Additionally, a commenter requested that CMS establish a new outlier threshold baseline to be updated by the market basket while other commenters suggested that CMS should cap the overall outlier payments an IRF can receive.

Response: We appreciate the commenters' suggestions regarding changes to the methodology used to establish an outlier threshold for IRF PPS payments. However, as we did not propose changes to this methodology, these comments are outside the scope of this final rule. We will continue to monitor our IRF outlier policies to ensure that they continue to compensate IRFs appropriately.

After consideration of the comments received and also taking into account the most recent available data, we are finalizing the outlier threshold amount of $7,906 to maintain estimated outlier payments at approximately 3 percent of total estimated aggregate IRF payments for FY 2021.

B. Update to the IRF Cost-to-Charge Ratio Ceiling and Urban/Rural Averages for FY 2021

Cost-to-charge ratios (CCRs) are used to adjust charges from Medicare claims to costs and are computed annually

from facility-specific data obtained from MCRs. IRF specific CCRs are used in the development of the CMG relative weights and the calculation of outlier payments under the IRF PPS. In accordance with the methodology stated in the FY 2004 IRF PPS final rule (68 FR 45674, 45692 through 45694), we propose to apply a ceiling to IRFs' CCRs. Using the methodology described in that final rule, we proposed to update the national urban and rural CCRs for IRFs, as well as the national CCR ceiling for FY 2021, based on analysis of the most recent data that is available. We apply the national urban and rural CCRs in the following situations:

- New IRFs that have not yet submitted their first MCR.
- IRFs whose overall CCR is in excess of the national CCR ceiling for FY 2021, as discussed below in this section.
- Other IRFs for which accurate data to calculate an overall CCR are not available.

Specifically, for FY 2021, we proposed to estimate a national average CCR of 0.490 for rural IRFs, which we calculated by taking an average of the CCRs for all rural IRFs using their most recently submitted cost report data. Similarly, we proposed to estimate a national average CCR of 0.400 for urban IRFs, which we calculated by taking an average of the CCRs for all urban IRFs using their most recently submitted cost report data. We apply weights to both of these averages using the IRFs' estimated costs, meaning that the CCRs of IRFs with higher total costs factor more heavily into the averages than the CCRs of IRFs with lower total costs. For this final rule, we have used the most recent available cost report data (FY 2018). This includes all IRFs whose cost reporting periods begin on or after October 1, 2017, and before October 1, 2018. If, for any IRF, the FY 2018 cost report was missing or had an ''as submitted'' status, we used data from a previous FY's (that is, FY 2004 through FY 2017) settled cost report for that IRF. We do not use cost report data from before FY 2004 for any IRF because changes in IRF utilization since FY 2004 resulting from the 60 percent rule and IRF medical review activities suggest that these older data do not adequately reflect the current cost of care. Using updated FY 2018 cost report data for this final rule, we estimate a national average CCR of 0.493 for rural IRFs, and a national average CCR of 0.398 for urban IRFs.

In accordance with past practice, we proposed to set the national CCR ceiling at 3 standard deviations above the mean CCR. Using this method, we proposed a national CCR ceiling of 1.33 for FY 2021. This means that, if an individual IRF's CCR were to exceed this ceiling of 1.33 for FY 2021, we will replace the IRF's CCR with the appropriate proposed national average CCR (either rural or urban, depending on the geographic location of the IRF). We calculated the proposed national CCR ceiling by:

Step 1. Taking the national average CCR (weighted by each IRF's total costs, as previously discussed) of all IRFs for which we have sufficient cost report data (both rural and urban IRFs combined).

Step 2. Estimating the standard deviation of the national average CCR computed in step 1.

Step 3. Multiplying the standard deviation of the national average CCR computed in step 2 by a factor of 3 to compute a statistically significant reliable ceiling.

Step 4. Adding the result from step 3 to the national average CCR of all IRFs for which we have sufficient cost report data, from step 1.

Using the updated FY 2018 cost report data for this final rule, we estimate a national average CCR ceiling of 1.34, using the same methodology.

We did not receive any comments on the proposed update to the IRF CCR ceiling and urban/rural averages for FY 2021. Therefore, we are finalizing the national average urban CCR at 0.398, the national average rural CCR at 0.493, and the national average CCR ceiling at 1.34 for FY 2021.

VIII. Removal of the Post-Admission Physician Evaluation Requirement From the IRF Coverage Requirements

We are committed to transforming the health care delivery system, and the Medicare program, by putting an additional focus on patient-centered care and working with providers and clinicians to improve patient outcomes. We refer to this transformation as ''Patients Over Paperwork.'' That is, CMS recognizes it is imperative that we develop and implement policies that allow providers and clinicians to focus the majority of their time treating patients rather than completing paperwork. Moreover, we believe it is essential for us to reexamine current regulations and administrative requirements to ensure that we are not placing unnecessary burden on providers.

In the FY 2018 IRF PPS proposed rule (82 FR 20743), we included a request for information (RFI) to solicit comments from stakeholders requesting information on CMS flexibilities and efficiencies. The purpose of the RFI was to receive feedback regarding ways in which we could reduce burden for hospitals and clinicians, improve quality of care, decrease costs and ensure that patients receive the best care. We received comments from IRF industry associations, state and national hospital associations, industry groups representing hospitals, and individual IRF providers in response to the solicitation. In the FY 2019 IRF PPS final rule (83 FR 38549 through 38553), we finalized several changes to the regulatory requirements that we believed were responsive to stakeholder feedback and helpful to providers in reducing administrative burden.

Patients over Paperwork has continued to be a priority for the agency, as we target ways in which we can reduce paperwork burden for hospitals and clinicians while improving quality of care for patients. Therefore, we are proposing to revise the current IRF coverage criteria. Specifically, we are focused on reducing medical record documentation requirements that we believe are no longer necessary.

IRF care is only considered by Medicare to be reasonable and necessary under section 1862(a)(1) of the Act if the patient meets all of the IRF coverage requirements outlined in § 412.622(a)(3), (4), and (5). Failure to meet the IRF coverage criteria in a particular case will result in denial of the IRF claim. Under § 412.622(a)(4)(ii), to document that each patient for whom the IRF seeks payment is reasonably expected to meet all of the requirements in § 412.622(a)(3) at the time of admission, the patient's medical record at the IRF must contain a post-admission physician evaluation that meets ALL of the following requirements:

- It is completed by the rehabilitation physician within 24 hours of the patient's admission to the IRF.
- It documents the patient's status on admission to the IRF, includes a comparison with the information noted in the preadmission screening documentation, and serves as the basis for the development of the overall individualized plan of care.
- It is retained in the patient's medical record at the IRF.

Before the current IRF coverage criteria were implemented in January 1, 2010, Medicare permitted ''trial'' IRF admissions (HCFAR 85–2–4 through 85–2–5). A ''trial'' IRF admission meant that patients were sometimes admitted to IRFs for 3 to 10 days to assess whether the patients would benefit significantly from treatment in the IRF or other settings. Therefore, if it was determined during a ''trial'' admission

that a patient was not appropriate for IRF level services, their claims for items and services provided during the trial period could not be denied for failure to meet IRF coverage criteria. Over time, we concluded that IRFs had developed a better ability and were more capable of recognizing if a patient was appropriate for IRF services prior to being admitted. Therefore, the concept of a ''trial'' IRF admission was eliminated when we rescinded HCFA Ruling 85–2 through a **Federal Register** notice titled ''Medicare Program; Criteria for Medicare Coverage of Inpatient Hospital Rehabilitation Services'' (74 FR 54835), effective January 1, 2010. We discussed our intent to rescind HCFA Ruling 85–2 in detail in the FY 2010 IRF PPS final rule (74 FR 39797 through 39798).

In addition, the Medicare Benefit Policy Manual, chapter 1, section 110.1.2 (Pub. L. 100–02), which can be downloaded from the CMS website at *https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/internet-Only-Manuals-IOMs.html*), states, ''In most cases, the clinical picture of the patient that emerges from the post-admission physician evaluation will closely resemble the information documented in the preadmission screening. However, for a variety of reasons, the patient's condition at the time of admission may occasionally not match the description of the patient's condition on the preadmission screening. If this occurs, the IRF must immediately begin the discharge process. It may take a day or more for the IRF to find placement for the patient in another setting of care. MACs will therefore allow the patient to continue receiving treatment in the IRF until placement in another setting can be found.'' It further states that in these particular cases, ''Medicare authorizes its MACs to permit the IRF claim to be paid at the appropriate CMG for IRF patient stays of 3 days or less.''

At this time, we believe that IRFs are more knowledgeable in determining prior to admission, whether a patient meets the coverage criteria for IRF services than they were when the IRF coverage requirements were initially implemented. Over time, we have analyzed the data regarding the number of above-mentioned cases described in chapter 1, section 110.1.2, of the Medicare Benefit Policy Manual, and it has trended downward since the IRF coverage requirements were initially implemented. In FY 2019, the payment was utilized 4 times across all 1,117 Medicare certified IRFs. Additionally, we believe that if IRFs are doing their due diligence while completing the pre-admission screening as required in § 412.622(a)(4)(i) by making sure each prospective IRF patient meets all of the requirements to be admitted to the IRF, then the post-admission physician evaluation is unnecessary.

Finally, we have removed the post-admission physician evaluation requirement during the public health emergency for the COVID–19 pandemic in the interim final rule with comment entitled, ''Medicare and Medicaid Programs; Policy and Regulatory Revisions in Response to the COVID–19 Public Health Emergency'', published on April 6, 2020 (85 FR 19230) (hereinafter referred to as the April 6, 2020 IFC). We believe that this will provide us with experience to determine whether this requirement can be removed permanently to reduce paperwork burden for hospitals and clinicians while continuing to provide adequate quality of care for patients.

Therefore, we proposed to remove the post-admission physician evaluation documentation requirement at § 412.622(a)(4)(ii) beginning with FY 2021, that is, for all IRF discharges beginning on or after October 1, 2020. Accordingly, we proposed to amend § 412.622(a)(3)(iv) to remove the reference to § 412.622(a)(4)(ii). We would also rescind the above-mentioned policy described in chapter 1, section 110.1.2, of the Medicare Benefit Policy Manual.

We note that removal of the post-admission physician evaluation does not preclude an IRF patient from being evaluated within the first 24 hours of admission if the IRF believes that the patient's condition warrants such an evaluation. We merely proposed that a post-admission physician evaluation would no longer be an IRF documentation requirement for IRF discharges occurring on and after October 1, 2020. Moreover, removal of the post-admission physician evaluation does not remove one of the required rehabilitation physician visits in the first week of the patient's stay in the IRF as specified in § 412.622(a)(3)(iv). IRFs will need to continue to meet the requirements at § 412.622(a)(3)(iv) as they always have.

While removal of the post-admission physician evaluation does not attribute to any direct savings for Medicare Part-A or Part-B, we do believe that removing it will reduce administrative and paperwork burden for both IRF providers and MACs.

The comments we received on our proposal to remove the post-admission physician evaluation documentation requirement at § 412.622(a)(4)(ii) beginning with FY 2021, that is, for all IRF discharges beginning on or after October 1, 2020; our proposed conforming amendments to § 412.622(a)(3)(iv) to remove the reference to § 412.622(a)(4)(ii); and on rescinding the above-mentioned policy described in chapter 1, sections 110.1.2, of the Medicare Benefit Policy Manual are summarized below.

Comment: The commenters unanimously supported CMS' proposal. Many commenters agreed that the information contained in the post-admission physician evaluation is redundant, since the majority of the information required in the post-admission physician evaluation is already being captured in the IRF patient's history and physical. Many commenters stated that not only would the proposal to remove the post-admission physician evaluation remove redundant documentation requirements, but it would also remove the added burden of it being a time sensitive requirement.

Response: We appreciate the commenters' support for the proposal. We agree that finalizing this proposal will ease administrative and documentation burden in the IRF setting.

After consideration of the comments we received, we are finalizing our proposal to remove the post-admission physician evaluation documentation requirement at § 412.622(a)(4)(ii) beginning with FY 2021, that is, for all IRF discharges beginning on or after October 1, 2020; our proposed conforming amendments to § 412.622(a)(3)(iv) to remove the reference to § 412.622(a)(4)(ii); and on rescinding the above-mentioned policy described in chapter 1, sections 110.1.2, of the Medicare Benefit Policy Manual.

IX. Revisions to Certain IRF Coverage Documentation Requirements

A. Codification of Existing Preadmission Screening Documentation Instructions and Guidance

Another way in which CMS has continued to explore burden reduction for providers and clinicians, while keeping patient centered care a priority, is by reviewing subregulatory guidance to identify any longstanding policies, instructions, or guidance that would be appropriate to codify through notice and comment rulemaking.

Specifically, in regards to the IRF PPS payment requirements, we conducted a detailed review of the Medicare Benefit Policy Manual, chapter 1, section 110.1.2 (Pub. L. 100–02), as well as the IRF PPS website (*https://www.cms.gov/Medicare/Medicare-Fee-for-Service-*

Payment/InpatientRehabFacPPS/index), to identify any such policies.

Currently, § 412.622(a)(4)(i) requires that a comprehensive preadmission screening must meet ALL of the following requirements:

- It is conducted by a licensed or certified clinician(s) designated by a rehabilitation physician described in § 412.622(a)(3)(iv) within the 48 hours immediately preceding the IRF admission.
- It includes a detailed and comprehensive review of each patient's condition and medical history.
- It serves as the basis for the initial determination of whether or not the patient meets the requirements for an IRF admission to be considered reasonable and necessary in § 412.622(a)(3).
- It is used to inform a rehabilitation who reviews and comments his or her concurrence with the findings and results of the preadmission screening.
- It is retained in the patient's medical record at the IRF.

When the pre-admission screening documentation requirements were finalized (74 FR 39790 through 39792), we did not specify any individual elements as being required for the pre-admission screening documentation to be considered detailed and comprehensive in accordance with § 412.622(a)(4)(i)(B). In addition, we did not specify at § 412.622(a)(4)(i)(D) that the rehabilitation physician must review and concur with the preadmission screening prior to the IRF admission. The Medicare Benefit Policy Manual, chapter 1, section 110.1.1 (Pub. L. 100–02) provides a more detailed description of what elements the preadmission screening should include and clarifies that the rehabilitation physician should review and concur with the preadmission screening prior to the patient being admitted to the IRF.

In chapter 1, section 110.1.1 of the Medicare Benefit Policy Manual currently, we state, ''The preadmission screening documentation must indicate the patient's prior level of function (prior to the event or condition that led to the patient's need for intensive rehabilitation therapy), expected level of improvement, and the expected length of time necessary to achieve that level of improvement. It must also include an evaluation of the patient's risk for clinical complications, the conditions that caused the need for rehabilitation, the treatments needed (that is, physical therapy, occupational therapy, speech-language pathology, or prosthetics/orthotics), expected frequency and duration of treatment in the IRF, anticipated discharge destination, any anticipated post-discharge treatments, and other information relevant to the care needs of the patient.'' Additionally, we state, ''All findings of the preadmission screening must be conveyed to a rehabilitation physician prior to the IRF admission. In addition, the rehabilitation physician must document that he or she has reviewed and concurs with the findings and results of the preadmission screening prior to the IRF admission.'' These have been our documentation instructions and guidance since the implementation of the IRF coverage requirements on January 1, 2010.

We believe that codifying these longstanding instructions and guidance would improve clarity and reduce administrative burden on both IRF providers and MACs. With patient centered care being such a high priority in today's healthcare climate, we want to mitigate, as much as possible, tasks that take away from time spent directly with the patient. Lastly, we believe IRF providers and MACs will appreciate all preadmission screening documentation requirements being located in the same place for ease of reference.

Thus, in the interest of reducing administrative burden and being able to locate all preadmission screening documentation requirements in the same place for ease of reference, we proposed to make the following regulatory amendments:

- At § 412.622(a)(4)(i)(B), to provide that the comprehensive preadmission screening must include a detailed and comprehensive review of each patient's condition and medical history, including the patient's level of function prior to the event or condition that led to the patient's need for intensive rehabilitation therapy, expected level of improvement, and the expected length of time necessary to achieve that level of improvement; an evaluation of the patient's risk for clinical complications; the conditions that caused the need for rehabilitation; the treatments needed (that is, physical therapy, occupational therapy, speech-language pathology, or prosthetics/orthotics); expected frequency and duration of treatment in the IRF; anticipated discharge destination; and anticipated post-discharge treatments; and
- At § 412.622(a)(4)(i)(D), to provide that the comprehensive preadmission screening must be used to inform a rehabilitation physician who must then review and document his or her concurrence with the findings and results of the preadmission screening prior to the IRF admission.

The comments we received on our proposal to amend § 412.622(a)(4)(i)(B) and (D) to codify our longstanding documentation instructions and guidance of the preadmission screening in regulation text, are summarized below.

Comment: The majority of commenters supported codifying the existing preadmission screening documentation requirements to the extent that it makes no substantive policy changes from the requirements described in the MDPM, chapter 1, section 110.1.1. Commenters stated that CMS' decision to codify these longstanding instructions and guidance would improve clarity and reduce administrative burden on both IRF providers and MACs. With patient-centered care being such a high priority in today's health care climate, commenters stated that they appreciated CMS' efforts to reduce tasks that take away from time spend directly with the patient. Commenters also stated that they agree with CMS that IRF providers and MACs will benefit from all documentation requirements being located in the same place in the regulations for ease of reference.

Response: We appreciate the commenters' support for the proposal. We agree that finalizing this proposal will reduce administrative burden on both IRF providers and MACs and allow more time to be spent in direct patient care.

Comment: Some commenters did not support codifying the existing preadmission screening documentation requirements, stating that the proposal did not align with CMS' Patients over Paperwork initiative. These commenters suggested that instead of codifying the existing requirements, we should allow IRF rehabilitation physicians to rely on their training and experience to determine which information best supports the appropriateness of the IRF admission. These commenters stated that such an approach would reduce documentation burden, and facilitate timely patient admissions to IRFs.

Response: We appreciate the commenters' concerns. However, we respectfully disagree that it would be better not to specify basic elements to include in the pre-admission screening documentation, as we believe that this would lead to excessive ambiguity in the regulations and create unnecessary confusion. Codifying the current preadmission screening requirements into regulation text does not change the amount of documentation that is required. We did not propose any new required elements to be completed on the pre-admission screening. Therefore, the information being collected and the time it takes to collect the information

remain the same. Additionally, we agree with the commenters that IRF rehabilitation physicians should have the freedom to document the information that best supports their decision to admit the patient in the preadmission screening documentation. For this reason, we require a detailed and comprehensive preadmission screening in which we allow rehabilitation physicians to include any additional information they deem necessary to the preadmission screening, in addition to the required elements. However, we believe that it is necessary to specify the basic minimum elements that we expect to see in a detailed and comprehensive pre-admission screening to eliminate confusion and ambiguity in the requirement.

Comment: Several commenters suggested that if CMS finalizes the proposal to codify the pre-admission screening requirements into regulation text, CMS should also consider amending the timing of this requirement (which is currently required to be completed within the 48 hours immediately preceding the IRF admission). Additionally, several commenters suggested that CMS should allow rehabilitation physicians to give a verbal approval of the preadmission screening instead of requiring them to review and concur with the findings and results of the pre-admission screening prior to admission to the IRF.

Response: We appreciate the commenters' suggestions regarding other ways to reduce burden associated with the pre-admission screening. However, since we only solicited comments regarding the elements of the preadmission screening documentation in the proposed rule (85 FR 22065, 22088), any additional changes to the preadmission screening requirements are beyond the scope of this final rule. Therefore, we will take these suggestions into consideration for future rulemaking.

Comment: A few commenters were concerned that codifying the preadmission screening requirements into regulation text might increase the amount of technical denials of IRF claims whenever one or more of the elements is missing from the preadmission screening documentation.

Response: We respectfully disagree with the commenters suggesting that codifying the requirements into regulation text will increase the amount of technical denials of IRF claims. We did not propose to add any new requirements to the pre-admission screening. Therefore, we do not believe that merely codifying these existing requirements in regulation will increase technical denials. We expect that IRFs will continue to complete the preadmission screening documentation as they always have.

Comment: Some commenters suggested that codifying the required elements of the pre-admission screening that are duplicative with other portions of the patient medical record does not alleviate documentation burden. These commenters suggested that CMS should consider removing some of the preadmission screening elements that duplicate data already included in other parts of the patient's IRF medical record (such as the history and physical and the individualized overall plan of care). A few commenters suggested that CMS should consider removing the preadmission screening documentation requirements altogether.

Response: We do not agree with the commenters who suggested that we remove the pre-admission screening requirement altogether, as we continue to believe that the pre-admission screening is an integral part of determining if a patient can tolerate and benefit from IRF level services. However, we do agree with commenters who suggested that we should not codify all of the current required elements of the pre-admission screening, as some of the elements duplicate data that is already included in other parts of the patients IRF medical record (such as the history and physical and the individualized overall plan of care). We are addressing the concerns of the current required elements of the preadmission screening in section IX. of this final rule.

Comment: Many commenters stated that removing some of the pre-admission screening elements that were duplicative of data collected in various other documents in the patient's IRF medical record (such as the history and physical and the individualized overall plan of care) would reduce burden. Several commenters suggested removing the pre-admission screening elements that require IRF clinicians to predict what will happen during the IRF stay, as this information frequently changes during the IRF stay and thereby becomes inaccurate and unnecessary.

Response: We appreciate the suggestions that commenters submitted in response to our solicitation of comments regarding what elements of the pre-admission screening should be removed in order to reduce burden on rehabilitation physicians. With the assistance of CMS medical officers, as well as the responses we received from the IRF industry, we are finalizing removal of the following elements from the pre-admission screening:

- Expected frequency and duration of treatment in the IRF
- Any anticipated post-discharge treatments
- Other information relevant to the patient's care needs

We believe that the elements noted above are duplicative requirements that will be captured in other medical documentation, such as the history and physical or the individualized overall plan of care, and require the rehabilitation physician to predict what will happen during and after the IRF admission, which often changes during the IRF stay. We believe that by removing the above mentioned elements, we are not only reducing provider burden, but we are continuing to align with the agency's Patients over Paperwork initiative without diminishing the quality of care patients receive.

We are, therefore, keeping the following key elements of the pre-admission screening documentation:

- Prior level of function
- Expected level of improvement
- Expected length of time to achieve that level of improvement
- Risk for clinical complications
- Conditions that caused the need for rehabilitation
- Combinations of treatments needed
- Anticipated discharge destination

We believe that the elements above demonstrate not only the anticipated functional progress of the patient and the therapeutic disciplines that will be utilized to reach those goals, but also the need for medical supervision by a physician and supports the need for an intensive inpatient rehabilitation program instead of a lower level of care. Since IRF patients are more medically complex than ever before, often suffering from chronic illnesses or disabilities, and/or recovering from devastating physical trauma, we believe that these elements are essential in determining if the patient can tolerate and benefit from IRF level care. They require a higher level of care and more intense therapy and physician supervision than patients in other post-acute care settings. Therefore, properly managing a patient's medical complexities while developing an informative and, to the extent possible, an all-inclusive pre-admission screening is of utmost importance. We continue to believe that having as much pertinent information about the patient as possible prior to the IRF admission improves the quality of care the patient receives in the IRF. Additionally,

discharge planning in IRFs should begin on the day of admission, so while it may appear that some pre-admission screening elements are better discussed after the patient is admitted, we want to continue to encourage IRFs to begin planning for the patient's discharge upon admission. Discharge coordination often involves not only the patient, but family members, caregivers, etc. and it can sometimes take weeks for all of the discharge details to be sorted out. We want to ensure that upon discharge, patients are set up for continued success in their recovery.

Comment: One commenter suggested that we should specify the requirements for a ''detailed and comprehensive review'' of the patient's condition and medical history in the pre-admission screening.

Response: As noted above, we believe that it is appropriate for the rehabilitation physician to use his or her training and experience when determining what information best supports his or her decision to admit the patient to the IRF to include in the pre-admission screening. For this reason, we require a detailed and comprehensive pre-admission screening in which we allow rehabilitation physicians to include any additional information, outside of the required elements, they deem necessary to the pre-admission screening.

After consideration of the comments we received, we are finalizing our proposal to amend § 412.622(a)(4)(i)(B) and (D) to codify certain elements of our longstanding documentation instructions and guidance of the preadmission screening in regulation text. Specifically, we are finalizing the following elements of the pre-admission screening requirements prior to codifying the pre-admission screening elements at § 412.622(a)(4)(i):

- Prior level of function
- Expected level of improvement
- Expected length of time to achieve that level of improvement
- Risk for clinical complications
- Conditions that caused the need for rehabilitation
- Combinations of treatments needed
- Anticipated discharge destination

These changes will become effective for all IRF discharges on or after Oct. 1, 2020. We are not finalizing the following elements of the pre-admission screening documentation:

- Expected frequency and duration of treatment in the IRF
- Any anticipated post-discharge treatments
- Other information relevant to the patient's care needs

These elements will be removed from chapter 1, section 110.1.1 of the Medicare Benefit Policy Manual.

B. Definition of a ''Week''

In § 412.622(a)(3)(ii) we state that in certain well-documented cases, this intensive rehabilitation therapy program might instead consist of at least 15 hours of intensive rehabilitation therapy within a 7 consecutive day period, beginning with the date of admission to the IRF. This language is also used many times throughout the IRF Services section of the Medicare Benefit Policy Manual. For more information, we refer readers to the Medicare Benefit Policy Manual, chapter 1, section 110.1.2 (Pub. L. 100–02), which can be downloaded from the CMS website at *https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/internet-Only-Manuals-IOMs.html.*

However, we understand there is some question as to whether the term ''Week'' may be construed as a different period (for example, Monday through Sunday). To provide clarity and reduce administrative burden for stakeholders regarding several of the IRF coverage requirements, we proposed to amend our regulation text to clarify that we define a ''Week'' as ''a 7 consecutive calendar day period'' for purposes of the IRF coverage requirements.

Therefore, we proposed to amend § 412.622(c) to clarify our definition of a ''Week'' as a period of ''7 consecutive calendar days beginning with the date of admission to the IRF.'' We also proposed to make conforming amendments to § 412.622(a)(3)(ii) by replacing ''7 consecutive day period, beginning with the date of admission to the IRF'' with ''Week''.

The comments we received on our proposals to §§ 412.622(c) and 412.622(a)(3)(ii) are summarized below.

Comment: The majority of commenters support CMS' proposal to clarify the definition of ''Week.'' Commenters stated that CMS' efforts to clarify this period of time and utilize consistent language throughout the regulatory text will improve clarity and reduce administrative burden on both IRF providers and MACs.

Response: We appreciate the commenters' support for the proposal. We agree that finalizing this proposal will reduce administrative burden on both IRF providers and MACs.

Comment: One commenter expressed concern that codifying the definition of a ''Week'' would cause greater provider burden, as IRF providers would need to independently track each patient's admission date to ensure that other requirements were being met timely.

Response: We appreciate the commenter's concern, but the proposed definition was always the definition that we used for the IRF requirements in § 412.622. We simply proposed to add the word ''calendar'' to help clarify the definition and eliminate any possible confusion.

Comment: One commenter suggested that CMS should instead define a ''week'' as a 7 consecutive calendar day period starting on the day *after* admission rather than on the day of admission. The commenter suggested that because some IRF patients are admitted late in the day, IRF therapists are unable to provide therapy services on the day of admission. Therefore, according to this commenter, therapists often only have 6 days to meet the minimum of 15 hours of intensive therapy requirement during the patient's first week of admission.

Response: We respectfully disagree with the commenter's suggested modification to the definition of ''week.'' We believe that an IRF patient's stay should be tracked beginning with the day of admission as it always has. We believe that the suggested modification would create unnecessary confusion as to what the actual day of admission is for other documentation purposes in the IRF medical record. Additionally, IRFs have shown that they are able to meet the minimum of 15 hours of intensive therapy requirement, even if the patient is admitted late in the day.

After consideration of the comments we received, we are finalizing our proposal to amend § 412.622(c) to clarify the definition of a ''Week'' as a ''7 consecutive calendar days beginning with the date of admission to the IRF.'' We are also finalizing our proposal to make conforming amendments to § 412.622(a)(3)(ii) by replacing ''7 consecutive day period, beginning with the date of admission to the IRF'' with ''Week''.

C. Solicitation of Comments Regarding Further Changes to the Preadmission Screening Documentation Requirements

As noted in section VIII. of this final rule, we are considering ways in which we can continue to help reduce administrative burden on IRF providers. Specifically, we have been reviewing the pre-admission screening documentation requirements under § 412.622(a)(4)(i) and are considering whether we could remove some of the requirements, but still maintain an IRF patient's clinical history, as well as documentation of their medical and functional needs in sufficient detail to

adequately describe and support the patient's need for IRF services.

To assist us in balancing the needs of the patient with the desire to reduce the regulatory burden on rehabilitation physicians, we solicited feedback from stakeholders in the proposed rule about potentially removing some of the preadmission screening documentation requirements. Specifically, we requested feedback regarding:

• What aspects of the preadmission screening do stakeholders believe are most or least critical and useful for supporting the appropriateness of an IRF admission, and why?

We appreciate the commenters' responses to this solicitation. We have summarized and responded to those comments in section IX.A. of this final rule.

X. Amendment To Allow Non-physician Practitioners To Perform Some of the Weekly Visits That Are Currently Required To Be Performed by a Rehabilitation Physician

In October 2019, Executive Order 13890, entitled ''Protecting and Improving Medicare for Our Nation's Seniors,'' available at *https://www.whitehouse.gov/presidential-actions/executive-order-protecting-improving-medicare-nations-seniors/,* was issued by the President of the United States instructing the Secretary to, among other things, propose a regulation under the Medicare program that would eliminate regulatory billing and other such requirements that are more stringent than applicable Federal or State laws and that limit professionals from practicing within their full scope of practice.

In responding to this Executive Order, CMS has begun to review any IRF coverage requirements at § 412.622(a) where we explicitly state the requirement must be completed by a rehabilitation physician to see if, when appropriate, some of these requirements could be fulfilled by non-physician practitioners (physician assistants, nurse practitioners, and licensed practical nurses).

Several of the IRF coverage requirements at § 412.622(a)(3), (4), and (5) explicitly state that a requirement must be completed by a rehabilitation physician, defined at § 412.622(c) as a licensed physician who is determined by the IRF to have specialized training and experience in inpatient rehabilitation. For example, under § 412.622(a)(3)(iv), for an IRF claim to be considered reasonable and necessary under section 1862(a)(1) of the Act, there must be a reasonable expectation at the time of the patient's admission to the IRF that the patient requires physician supervision by a rehabilitation physician. The requirement for medical supervision means that the rehabilitation physician must conduct face-to-face visits with the patient at least 3 days per week throughout the patient's stay in the IRF to assess the patient both medically and functionally, as well as to modify the course of treatment as needed to maximize the patient's capacity to benefit from the rehabilitation process. For more information, please refer to the Medicare Benefit Policy Manual, chapter 1, section 110.2.4 (Pub. L. 100–02), which can be downloaded from the CMS website at *https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/internet-Only-Manuals-IOMs.html.*

In addition, under § 412.622(a)(4)(ii), to document that each patient for whom the IRF seeks payment is reasonably expected to meet all of the requirements in § 412.622(a)(3) at the time of admission, the patient's medical record at the IRF must contain a post-admission physician evaluation that must, among other requirements, be completed by a rehabilitation physician within 24 hours of the patient's admission to the IRF. For more information, we refer readers to the Medicare Benefit Policy Manual, chapter 1, section 110.1.2 (Pub. L. 100–02), which can be downloaded from the CMS website at *https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/internet-Only-Manuals-IOMs.html.*

In response to the RFI in the FY 2018 IRF PPS proposed rule (82 FR 20742 through 20743), we received comments suggesting that we consider amending the requirements in § 412.622(a)(3)(iv) and (a)(4)(ii) to allow non-physician practitioners to fulfill some of the requirements that rehabilitation physicians are currently required to complete. The commenters suggested that expanding the use of non-physician practitioners in meeting some of the IRF coverage requirements would ease the documentation burden on rehabilitation physicians.

We solicited additional comments in the FY 2019 proposed rule (83 FR 20998 through 20999) on potentially allowing non-physician practitioners to fulfill some of the requirements in § 412.622(a)(3), (4), and (5) that rehabilitation physicians are currently required to complete. Specifically, we sought feedback from the industry and asked:

• Does the IRF industry believe non-physician practitioners have the specialized training in rehabilitation that they need to have to appropriately assess IRF patients both medically and functionally?

• How would the non-physician practitioner's credentials be documented and monitored to ensure that IRF patients are receiving high quality care?

• Do stakeholders believe that utilizing non-physician practitioners to fulfill some of the requirements that are currently required to be completed by a rehabilitation physician would have an impact of the quality of care for IRF patients?

We received significant feedback in response to our solicitation of comments on allowing non-physician practitioners to fulfill the requirements at § 412.622(a)(3), (4) and (5). However, the comments from stakeholders were conflicting. Some commenters expressed concern with allowing non-physician practitioners to fulfill some or all of the requirements that rehabilitation physicians are currently required to meet. These commenters generally raised the following specific concerns:

• The first concern was that IRF patients would not continue receiving the hospital level and quality of care that is necessary to treat such complex conditions in an IRF if being treated only by a non-physician practitioner.

• The second concern was that non-physician practitioners have no specialized training in inpatient rehabilitation that would enable them to adequately assess the interaction between patients' medical and functional care needs in an IRF.

Conversely, we also received comments from industry stakeholders stating that non-physician practitioners do have the necessary education and are qualified to provide the same level of care currently being provided to IRF patients by rehabilitation physicians. These commenters stated that non-physician practitioners are capable of performing the same tasks that the rehabilitation physicians currently must perform in IRFs. These commenters stated that non-physician practitioners have a history of treating complex patients across all settings, and are already doing so in IRFs. They also stated that the types of patient assessments that they would be required to do in the IRFs are the same types of assessments they are currently authorized to provide in other settings, such as inpatient hospitals, skilled nursing facilities, hospice, and outpatient rehabilitation centers. Additionally, commenters stated that because non-physician practitioners practice in conjunction with

rehabilitation physicians in IRFs already, time spent practicing with rehabilitation physicians has provided many non-physician practitioners with direct rehabilitation experience to provide quality of care and services to IRF patients. Lastly, several commenters stated that non-physician practitioner educational programs include didactic and clinical experiences to prepare graduates for advanced clinical practice. These commenters stated that current accreditation requirements and competency-based standards ensure that non-physician practitioners are equipped to provide safe, high level quality care.

Additionally, several commenters stated that allowing non-physician practitioners to practice to the full extent of their education, training, and scope of practice will increase the number of available health care providers able to work in the post-acute care setting resulting in lower costs and improved quality of care. Allowing the use of non-physician practitioners, authorized to provide care to the full extent of their states scope of practice, would also help offset deficiencies in physician supply, especially in rural areas. Physician burnout is also something that commenters suggested can occur overtime, and they commented that allowing the use of non-physician practitioners could potentially help decrease the rate at which physicians move on from providing care in IRFs.

After carefully reviewing and taking all feedback that we received to our solicitation of comments into consideration, we proposed to allow the use of non-physician practitioners to perform the IRF services and documentation requirements currently required to be performed by the rehabilitation physician in § 412.622(a)(3), (4), and (5). In the FY 2021 IRF PPS proposed rule, we stated that we agreed with commenters that non-physician practitioners have the training and experience to perform the IRF requirements, and believe that allowing IRFs to utilize non-physician practitioners practicing to their full scope of practice under applicable state law will increase access to post-acute care services specifically in rural areas, where rehabilitation physicians are often in short supply. We stated that we believed that alleviating access barriers to post-acute care services will improve the quality of care and lead to better patient outcomes in rural areas. We also agreed with commenters that non-physician practitioners have the appropriate education and are capable of providing hospital level quality of care to complex IRF patients. Lastly, we stated that we believed that it continues to be the IRF's responsibility to exercise their best judgment regarding who has appropriate specialized training and experience, provided that these duties are within the practitioner's scope of practice under applicable state law.

We proposed to mirror our current definition of a rehabilitation physician with the proposed definition of a non-physician practitioner in that we expect the IRF to determine whether the non-physician practitioner has specialized training and experience in inpatient rehabilitation and thus may perform any of the duties that are required to be performed by a rehabilitation physician, provided that the duties are within the non-physician practitioner's scope of practice under applicable state law.

Therefore, we proposed to add new § 412.622(d) providing that for purposes of § 412.622, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation may perform any of the duties that are required to be performed by a rehabilitation physician, provided that the duties are within the non-physician practitioner's scope of practice under applicable state law.

Additionally, we noted that if an IRF believes in any given situation a rehabilitation physician should have sole responsibility, or shared responsibility with non-physician practitioners, for overseeing a patient's care, the IRF should make that decision. Furthermore, IRFs are required to meet the hospital Conditions of Participation in section 1861(e) of the Act and in the regulations in part 482. Under section 1861(e)(4) of the Act and § 482.12(c), every Medicare patient is generally required to be under the care of a physician.

Our proposal did not preclude IRFs from making decisions regarding the role of rehabilitation physicians or non-physician practitioners. We merely proposed to allow non-physician practitioners to perform the IRF coverage requirements at § 412.622(a)(3), (4), and (5) that are currently required to be performed by a rehabilitation physician, provided that these duties are within the practitioner's scope of practice under applicable state law.

We invited public comment on this proposal. In particular, we invited commenters to provide feedback on whether they believed that utilizing non-physician practitioners to fulfill some of the requirements that are currently required to be completed by a rehabilitation physician would have an impact on the quality of care for IRF patients. We also requested information from IRFs regarding whether or not their facilities would allow non-physician practitioners to complete all of the requirements at § 412.622(a)(3), (4), and (5), some of these requirements at § 412.622(a)(3), (4), and (5), or none of the requirements at § 412.622(a)(3), (4), and (5). We stated that this information would assist us in refining our estimates of the changes in Medicare payment that may result from the proposal.

The comments we received on our proposal to allow non-physician practitioners to perform the IRF coverage requirements at § 412.622(a)(3), (4), and (5) that are currently required to be performed by a rehabilitation physician, provided that these duties are within the practitioner's scope of practice under applicable state law, are summarized below.

Comment: Some commenters expressed support for the proposal to allow non-physician practitioners to perform the IRF coverage requirements. Some commenters stated that non-physician practitioners are qualified, prepared, and experienced at performing and documenting mandatory assessments such as those of IRF patients, as well as providing the high quality of care these patients require. Additionally, the commenters suggested that authorizing non-physician practitioners, who have a long history of providing safe, high quality care to their patients, to treat patients would improve the care for IRF patients by reducing the burdens of the patient's clinical care team, thus enabling facilities to utilize their staff in the most efficient way possible. One of the commenters suggested that non-physician practitioners were an important part of the IRF team already assisting with many consults, admissions, and daily patient visits. Therefore, extending their ability to perform the proposed duties and sign documentation under the supervision and guidance of a board certified rehabilitation physician would provide additional assistance to IRF treatment teams. A few commenters that supported CMS' proposal stated that given ongoing staffing challenges that many providers face, including physician burnout, particularly in certain geographic areas, allowing non-physician practitioners to practice to the top of their license and use their full skill set would help lower health care costs and increase access to care. Lastly, a few commenters stated that it would be helpful if CMS would clearly define the role of non-physician practitioners in IRFs as there are clinical differences

between nurse practitioners and physician assistants, and state scope of practice laws differ.

Response: We appreciate the commenters' support for the proposal to allow non-physician practitioners to perform the IRF coverage requirements at § 412.622(a)(3), (4), and (5) that are currently required to be performed by a rehabilitation physician, provided that these duties are within the practitioner's scope of practice under applicable state law. We continue to believe that non-physician practitioners have an important role in treating IRF patients. We agree with commenters that non-physician practitioners have training and experience in caring for complex patient populations, and that they can provide much-needed help to rehabilitation physicians. However, given the overall nature of the comments that we received in response to this proposal, we believe it is prudent at this time to take a more measured approach to expanding the role of non-physician practitioners in the IRF setting to ensure that the vulnerable IRF populations will continue to receive the highest quality of care for their post-acute rehabilitation needs. Therefore, we are finalizing a portion of the proposed policy by amending § 412.622(a)(3)(iv) to allow non-physician practitioners to conduct one of the three required rehabilitation physician visits in every week of the IRF stay, with the exception of the first week, if permitted under state law. In the first week of the IRF stay, we continue to require the rehabilitation physician to visit patients a minimum of three times to ensure that the patient's plan of care is fully established and optimized to the patient's care needs in the IRF.

Comment: The majority of commenters urged CMS not to finalize this proposal, expressing concerns that the change would have negative impacts on the health, quality of care, and recovery success rate of IRF patients. These commenters stated that the role and judgment of rehabilitation physicians in IRFs is central to the successful outcomes of complex IRF patients, and a key element in what separates IRFs from other lesser intensive post-acute care settings. The commenters stated that rehabilitation physicians are specifically trained to handle the distinctive needs of highly complex medical rehabilitation patients such as spinal cord injury patients, brain injury patients, and complex wound issues seen in mobility-impaired patients. Additionally, commenters suggested that rehabilitation physicians are better trained to manage the comorbidities and medication needs of IRF patients and evaluate and order durable medical equipment for patients with new onset of disabilities. Commenters suggested that substituting non-physician practitioners for rehabilitation physicians in the IRF is likely to result in worse clinical outcomes for patients and an increase in medical complications, readmission, acute transfers, and emergency room utilization. Commenters noted that the costs of these outcomes—both to the Medicare program and to individual patients—would more than offset any projected savings tied to the substitution of non-physician practitioners. Lastly, commenters stated that allowing non-physician practitioners to perform specific clinical and patient care functions that currently can only be satisfied by rehabilitation physicians is inconsistent with Medicare's benefit structure for rehabilitation hospitals and post-acute care benefits. These commenters indicated that the IRF benefit structure explicitly requires that each patient requires physician supervision by a rehabilitation physician, as specified at § 412.622(a)(3)(iv).

Response: We appreciate the commenters' feedback regarding the proposal to allow non-physician practitioners to perform the IRF coverage requirements at § 412.622(a)(3), (4), and (5) that are currently required to be performed by a rehabilitation physician, provided that these duties are within the practitioner's scope of practice under applicable state law. Given the strong concerns that many commenters noted over this proposed policy, we believe that the prudent approach at this time is to finalize only a portion of the proposed policy. Thus, we are finalizing a portion of the proposed policy by amending § 412.622(a)(3)(iv) to allow non-physician practitioners to conduct one of the three required rehabilitation physician visits in every week of the IRF stay, with the exception of the first week, if permitted under state law. We believe that this approach mitigates many of the concerns expressed by commenters, because it preserves the existing benefit structure of the IRF setting, ensures the quality of care for IRF patients by continuing the rehabilitation physician's close involvement in the establishment of the patient's plan of care and the initial implementation of the plan of care, and allows non-physician practitioners to assist in implementing the plan of care once it has been fully established. We believe that this balanced approach maintains the central role and judgment of the rehabilitation physician in the patient's plan of care, while also allowing for the expanded role of non-physician practitioners. We believe this approach takes full advantage of the extensive training and knowledge that rehabilitation physicians bring to the care of IRF patients, but also allows patients to benefit from the training that non-physician practitioners have in caring for complex patients. We believe that this measured approach may result in improved outcomes for patients, as it takes full advantage of the skills of both non-physician practitioners and rehabilitation physicians. We do not estimate the savings from this expansion of the role of non-physician practitioners in IRFs to be significant, but we also do not anticipate that this measured approach will increase costs to the Medicare program, as suggested by commenters, because rehabilitation physicians will still be directly involved in establishing and implementing the patient's IRF plan of care. Non-physician practitioners can add significant expertise to the patient care team, including recognizing emergent issues that, if left unaddressed, could lead to unplanned readmissions to the acute care hospitals.

Comment: The majority of commenters suggested that non-physician practitioners do not have the adequate training and experience to fulfill the preadmission screening, individualized overall plan of care, 3 weekly face-to-face visits, and interdisciplinary team meeting requirements. Many of the commenters stated that physicians, by nature of their medical training and education, are the only types of health care providers that should make decisions tied to a patient's admission. Therefore, the majority of commenters stated that they did not believe that non-physician practitioners should be conducting the pre-admission screening, as it is the initial evaluation and review of the patient's condition and need for rehabilitation therapy and medical treatment. Commenters also stated that having a rehabilitation physician make the admission decisions would significantly reduce erroneous claim reviews and denials.

Many commenters suggested that, while non-physician practitioners can play a vital role in supporting the rehabilitation physician in coordinating the patient's medical needs with his or her functional rehabilitation needs, they do not have the adequate training and experience to play a direct role in the execution of the individualized overall plan of care for IRF patients.

Commenters noted that the complexity of patients in IRFs has been increasing, and it would be illogical, and particularly ill-timed in light of the COVID–19 public health emergency, to allow a non-physician practitioner to synthesize and approve all of the elements of the individualized overall plan of care for IRF patients.

Many commenters stated that CMS' proposal to allow non-physician practitioners to administer the three weekly face-to-face visits was particularly concerning because the physician visits with patients significantly inform the course of patients' treatment and overall plans of care. In these visits, physicians modify patients' course of treatment as needed, so that the patient's capacity to benefit is maximized. Commenters also suggested that a patient's ability to benefit from the IRF care is diminished if lesser trained clinicians are tasked with treating the patients. Additionally, commenters suggested that some states would not permit (under their current laws) non-physician practitioners to engage in these visits because such services are only intended to be performed by a licensed physician with the skillset that allows them to assess the patient or make modifications to treatment plans, both medically and functionally.

Lastly, commenters stated that all recommendations made by the interdisciplinary team are directly related to the prognosis and oversight of the patient's care and should be authorized only by a rehabilitation physician, as the complex nature of the patient in IRFs, combined with the delivery of an intensive course of therapy, requires skills and expertise that far exceed those held by a non-physician practitioner.

Response: We appreciate the commenters' feedback. While we continue to believe that non-physician practitioners are well-trained to care for complex patient populations, the concerns that commenters brought to our attention on this proposal have led us to believe that we need to take a more measured approach to expanding the role of non-physician practitioners in the IRF setting without diminishing the quality of care. We understand that IRF beneficiaries are a vulnerable population that require the highest quality of care and we want to ensure that the policies we finalize provide just that. Thus, we are finalizing a portion of the proposed policy by amending § 412.622(a)(3)(iv) to allow non-physician practitioners to conduct one of the three required rehabilitation physician visits in every week of the IRF stay, with the exception of the first week, if permitted under state law. We believe that this measured approach responds to the concerns expressed by commenters by preserving the rehabilitation physician's training and judgment at the center of the patient's care plan in the IRF, while also allowing non-physician practitioners to take an expanded role in the care of patients. We believe that this approach will allow non-physician practitioners to play a vital role in supporting the rehabilitation physician by coordinating the patient's medical needs with his or her functional rehabilitation needs once the rehabilitation physician has fully established the patient's plan of care in the first week. This approach also maintains the rehabilitation physician's direct involvement in other aspects of the patient's care.

After consideration of the comments we received, we are finalizing a portion of our proposed policy changes by amending § 412.622(a)(3)(iv) to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law. To be clear, in the first week of the IRF stay, we continue to require the rehabilitation physician to visit patients a minimum of three times to ensure that the patient's plan of care is fully established and optimized to the patient's care needs in the IRF. In the second, third, fourth weeks of the stay, and beyond, we will continue to require Medicare fee-for-services beneficiaries in IRFs to receive a minimum of three rehabilitation physicians visits per week, but will amend § 412.622(a)(3)(iv) to allow non-physician practitioners to independently conduct one of these three minimum required visits per week. We believe that this measured approach to expanding the role of non-physician practitioners in IRFs balances the commenters' concerns about maintaining the rehabilitation physician at the core of the patient's plan of care in the IRF with the benefits of expanding the role of non-physician practitioners, who play an important role in the interdisciplinary team and the care of complex patients. We are also making conforming changes to § 412.29(e) to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law.

XI. Method for Applying the Reduction to the FY 2021 IRF Increase Factor for IRFs That Fail To Meet the Quality Reporting Requirements

As previously noted, section 1886(j)(7)(A)(i) of the Act requires the application of a 2-percentage point reduction of the applicable market basket increase factor for payments for discharges occurring during such FY for IRFs that fail to comply with the quality data submission requirements. In accordance with § 412.624(c)(4)(i), we apply a 2-percentage point reduction to the applicable FY 2021 market basket increase factor in calculating an adjusted FY 2021 standard payment conversion factor to apply to payments for only those IRFs that failed to comply with the data submission requirements. As previously noted, application of the 2-percentage point reduction may result in an update that is less than 0.0 for a FY and in payment rates for a FY being less than such payment rates for the preceding FY. Also, reporting-based reductions to the market basket increase factor are not cumulative; they only apply for the FY involved.

Table 12 shows the calculation of the proposed adjusted FY 2021 standard payment conversion factor that would be used to compute IRF PPS payment rates for any IRF that failed to meet the quality reporting requirements for the applicable reporting period.

TABLE 12—CALCULATIONS TO DETERMINE THE ADJUSTED FY 2021 STANDARD PAYMENT CONVERSION FACTOR FOR IRFS THAT FAILED TO MEET THE QUALITY REPORTING REQUIREMENT

Explanation for adjustment	Calculations
Standard Payment Conversion Factor for FY 2020	$ 16,489

TABLE 12—CALCULATIONS TO DETERMINE THE ADJUSTED FY 2021 STANDARD PAYMENT CONVERSION FACTOR FOR IRFS THAT FAILED TO MEET THE QUALITY REPORTING REQUIREMENT—Continued

Explanation for adjustment	Calculations
Market Basket Increase Factor for FY 2021 (2.4 percent), reduced by 0.0 percentage point for the productivity adjustment as required by section 1886(j)(3)(C)(ii)(I) of the Act, and further reduced by 2 percentage points for IRFs that failed to meet the quality reporting requirement	× 1.004
Budget Neutrality Factor for the Updates to the Wage Index and Labor-Related Share	× 1.0013
Budget Neutrality Factor for the Revisions to the CMG Relative Weights	× 0.9970
Adjusted FY 2021 Standard Payment Conversion Factor	= $ 16,527

XII. Miscellaneous Comments

Comment: Several commenters recommended that CMS evaluate how the public health emergency will impact future reimbursement under current practices and encouraged CMS to work with stakeholders to make adjustments to the case-mix system in the future.

Response: We recognize the impact that the public health emergency is having on all providers and we intend to examine the effects of this emergency in available Medicare data. We will propose any modifications to the existing methodologies used to update reimbursements in future rulemaking if and when appropriate. We value transparency in our processes and will continue to engage stakeholders in future development of payment policies.

Comment: We received several comments on the IRF QRP. Several commenters noted that the status of IRF–PAI 4.0 is unknown along with the adoption of additional standardized patient assessment data element items that are being added to IRF–PAI 4.0. Several commenters thanked CMS for efforts taken to reduce data reporting burden, such as delaying the release of IRF–PAI 4.0, and granting an exception to the IRF QRP reporting requirements for Quarter 1 and Quarter 2 of 2020. One commenter requested that the exemption be extended for all affected quarters. One commenter requested that measure reliability analyses be performed and shared to ensure the accuracy of measure calculations in light of truncated, incomplete, or COVID–19 affected data.

Several commenters also provided recommendations for additions and modifications of IRF QRP measures. One commenter suggested CMS collect and stratify patient and caregiver data based on key variables of inequities in patient care within population segments and other communities of belonging, such as race and ethnicity, for all types of measures.

One commenter recommended that CMS exercise flexibility regarding the non-compliance payment penalty. Another commenter requested that CMS lower the IRF QRP APU minimum submission threshold from 95 percent to 80 percent, for consistency with the SNF QRP and LTCH QRP.

Response: We consider these comments to be outside the scope of the current rulemaking. We refer providers to the interim final rule with comment entitled, ''Additional Policy and Regulatory Revisions in Response to the COVID–19 Public Health Emergency and Delay of Certain Reporting Requirements for the Skilled Nursing Facility Quality Reporting Program'' (85 FR 27595 through 27596) regarding the delay in the compliance date for the Transfer of Health Information quality measures and certain standardized patient assessment data elements (SPADEs). We also refer providers to our June 23, 2020 announcement at *https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/Spotlights-Announcements* that, effective July 1, 2020, IRFs must resume reporting their quality data.

We received several additional comments that were outside the scope of the FY 2021 IRF PPS proposed rule. Specifically, we received comments regarding the facility-level adjustment factors, cognitive function and resource use in IRFs, the motor score, the reliability and validity of IRF data collection, modifications to the 60 percent rule, IRF regulatory burden reduction, the use of recreational therapy, IMPACT Act data availability, COVID–19 health pandemic, post-acute care payment reform, and the PAC PPS prototype among other topics. We thank the commenters for bringing these issues to our attention, and will take these comments into consideration for potential policy refinements.

XIII. Waiver of the 60-Day Delayed Effective Date for the Final Rule

We ordinarily provide a 60-day delay in the effective date of final rules after the date they are issued in accord with the Congressional Review Act (CRA) (5 U.S.C. 801(a)(3)). However, section 808(2) of the CRA provides that, if an agency finds good cause that notice and public procedure are impracticable, unnecessary, or contrary to the public interest, the rule shall take effect at such time as the agency determines. The United States is responding to an outbreak of respiratory disease caused by a novel (new) coronavirus that has now been detected in more than 190 locations internationally, including in all 50 States and the District of Columbia. The virus has been named ''SARS-CoV–2'' and the disease it causes has been named ''coronavirus disease 2019'' (abbreviated ''COVID–19'').

On January 30, 2020, the International Health Regulations Emergency Committee of the World Health Organization (WHO) declared the outbreak a ''Public Health Emergency of international concern.'' On January 31, 2020, Health and Human Services Secretary, Alex M. Azar II, declared a public health emergency (PHE) for the United States to aid the nation's healthcare community in responding to COVID–19. On March 11, 2020, the WHO publicly characterized COVID–19 as a pandemic. On March 13, 2020, the President of the United States declared the COVID–19 outbreak a national emergency.

Due to CMS prioritizing efforts in support of containing and combatting the COVID–19 PHE, and devoting significant resources to that end, it was impracticable for CMS to complete the work needed on the IRF PPS final rule in accordance with our usual schedule for this rulemaking, which aims for a publication date providing for at least 60 days of public notice before the start of the fiscal year to which it applies. The IRF PPS final rule is necessary to annually review and update the payment system, and it is critical to ensure that the payment policies for this payment system are effective on the first day of the fiscal year to which they are intended to apply. Therefore, in light of the COVID–19 PHE and the resulting strain on CMS's resources, it was impracticable for CMS to publish the IRF PPS final rule 60 days before the effective date, and we are hereby waiving the 60-day requirement and determining that the IRF PPS final rule

will take effect 55 days after issuance; it would be contrary to the public interest for CMS to do otherwise.

XIV. Provisions of the Final Regulations

In this final rule, we are adopting the provisions set forth in the FY 2021 IRF PPS proposed rule (85 FR 22065), specifically:

- We will update the CMG relative weights and average length of stay values for FY 2021, in a budget neutral manner, as discussed in section V. of this final rule.
- We will update the IRF PPS payment rates for FY 2021 by the market basket increase factor, based upon the most current data available, with a productivity adjustment required by section 1886(j)(3)(C)(ii)(I) of the Act, as described in section VI. of this final rule.
- We will adopt the revised OMB delineations, the IRF wage index transition, and the update to the labor-related share for FY 2021 in a budget-neutral manner, as described in section VI. of this final rule.
- We will calculate the final IRF standard payment conversion factor for FY 2021, as discussed in section VI. of this final rule.
- We will update the outlier threshold amount for FY 2021, as discussed in section VII. of this final rule.
- We will update the CCR ceiling and urban/rural average CCRs for FY 2021, as discussed in section VII. of this final rule.
- We will amend the IRF coverage requirements to remove the post-admission physician evaluation requirement as discussed in section VIII. of this final rule.
- We will amend the IRF coverage requirements to codify existing documentation instructions and guidance as discussed in section IX. of this final rule.
- We will amend the IRF coverage requirements to allow non-physician practitioners to conduct one of the three minimum required rehabilitation physician visits every week of the IRF stay, except for the first week, if permitted under state law, as discussed in section X. of this final rule.
- We will apply the reduction to the FY 2021 IRF increase factor for IRFs that fail to meet the quality reporting requirements as discussed in section XI. of this final rule.

XV. Collection of Information Requirements

As discussed in section IX. of this final rule, we are amending § 412.622(a)(4)(i)(B) and (D) to codify our longstanding documentation instructions and guidance of the preadmission screening in regulation text. As per our discussion in the FY 2010 IRF PPS final rule (74 CR 39803), we do not believe that there is any burden associated with this requirement. The burden associated with this requirement is the time and effort put forth by the rehabilitation physician to document his or her concurrence with the pre-admission findings and the results of the pre-admission screening and retain the information in the patient's medical record. The burden associated with this requirement is in keeping with the ''Conditions of Participation: Medical record services,'' that are already applicable to Medicare participating hospitals. Therefore, we believe that this requirement reflects customary and usual business and medical practice. Thus, in accordance with section 1320.3(b)(2) of the Act, the burden is not subject to the PRA.

As discussed in section VIII. of this final rule, we are removing the post-admission physician evaluation requirement at § 412.622(a)(4)(ii) beginning with FY 2021, that is, for all IRF discharges beginning on or after October 1, 2020. Accordingly, we are amending § 412.622(a)(3)(iv) to remove the reference to § 412.622(a)(4)(ii). We discuss any potential cost savings from this revision in the Overall Impact section of this final rule.

XVI. Regulatory Impact Analysis

A. Statement of Need

This final rule updates the IRF prospective payment rates for FY 2021 as required under section 1886(j)(3)(C) of the Act and in accordance with section 1886(j)(5) of the Act, which requires the Secretary to publish in the **Federal Register** on or before the August 1 before each FY, the classification and weighting factors for CMGs used under the IRF PPS for such FY and a description of the methodology and data used in computing the prospective payment rates under the IRF PPS for that FY. This final rule also implements section 1886(j)(3)(C) of the Act, which requires the Secretary to apply a MFP adjustment to the market basket increase factor for FY 2012 and subsequent years.

Furthermore, this final rule adopts policy changes under the statutory discretion afforded to the Secretary under section 1886(j) of the Act. We are finalizing our proposal to adopt more recent OMB statistical area delineations and apply a 5 percent cap on any wage index decreases compared to FY 2020 in a budget neutral manner. We are also finalizing our proposal to amend the IRF coverage requirements to remove the post-admission physician evaluation requirement and codify existing documentation instructions and guidance.

B. Overall Impact

We have examined the impacts of this rule as required by Executive Order 12866 on Regulatory Planning and Review (September 30, 1993), Executive Order 13563 on Improving Regulation and Regulatory Review (January 18, 2011), the Regulatory Flexibility Act (RFA) (September 19, 1980, Pub. L. 96–354), section 1102(b) of the Act, section 202 of the Unfunded Mandates Reform Act of 1995 (March 22, 1995, Pub. L. 104–4), Executive Order 13132 on Federalism (August 4, 1999), the Congressional Review Act (5 U.S.C. 804(2)), and Executive Order 13771 on Reducing Regulation and Controlling Regulatory Costs (January 30, 2017).

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Section 3(f) of Executive Order 12866 defines a ''significant regulatory action'' as an action that is likely to result in a rule: (1) Having an annual effect on the economy of $100 million or more in any 1 year, or adversely and materially affecting a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local or tribal governments or communities (also referred to as ''economically significant''); (2) creating a serious inconsistency or otherwise interfering with an action taken or planned by another agency; (3) materially altering the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raising novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in Executive Order 12866.

A regulatory impact analysis (RIA) must be prepared for major rules with economically significant effects ($100 million or more in any 1 year). We estimate the total impact of the policy updates described in this final rule by comparing the estimated payments in FY 2021 with those in FY 2020. This analysis results in an estimated $260 million increase for FY 2021 IRF PPS payments. We estimate that this

rulemaking is ''economically significant'' as measured by the $100 million threshold, and hence also a major rule under the Congressional Review Act. Also, the rule has been reviewed by OMB. Accordingly, we have prepared an RIA that, to the best of our ability, presents the costs and benefits of the rulemaking.

C. Anticipated Effects

1. Effects on IRFs

The RFA requires agencies to analyze options for regulatory relief of small entities, if a rule has a significant impact on a substantial number of small entities. For purposes of the RFA, small entities include small businesses, nonprofit organizations, and small governmental jurisdictions. Most IRFs and most other providers and suppliers are small entities, either by having revenues of $8.0 million to $41.5 million or less in any 1 year depending on industry classification, or by being nonprofit organizations that are not dominant in their markets. (For details, see the Small Business Administration's final rule that set forth size standards for health care industries, at 65 FR 69432 at *https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards_Effective%20Aug%2019%2C%202019_Rev.pdf,* effective January 1, 2017 and updated on August 19, 2019.) Because we lack data on individual hospital receipts, we cannot determine the number of small proprietary IRFs or the proportion of IRFs' revenue that is derived from Medicare payments. Therefore, we assume that all IRFs (an approximate total of 1,120 IRFs, of which approximately 55 percent are nonprofit facilities) are considered small entities and that Medicare payment constitutes the majority of their revenues. HHS generally uses a revenue impact of 3 to 5 percent as a significance threshold under the RFA. As shown in Table 13, we estimate that the net revenue impact of this final rule on all IRFs is to increase estimated payments by approximately 2.8 percent. However, we find that certain categories of IRF providers will be expected to experience revenue impacts in the 3 to 5 percent range. We estimate a 3.0 percent overall impact for rural IRFs. Additionally, we estimate a 3.1 percent overall impact for teaching IRFs with a resident to average daily census ratio of less than 10 percent, a 3.4 percent overall impact for teaching IRFs with resident to average daily census ratio of 10 to 19 percent, and a 3.1 percent overall impact for teaching IRFs with a resident to average daily census ratio greater than 19 percent. Also, we estimate a 3.2 percent overall impact for IRFs with a DSH patient percentage of 0 percent and a 3.1 percent overall impact for IRFs with a DSH patient percentage greater than 20 percent. As a result, we anticipate this final rule will have a positive impact on a substantial number of small entities. MACs are not considered to be small entities. Individuals and states are not included in the definition of a small entity.

In addition, section 1102(b) of the Act requires us to prepare an RIA if a rule may have a significant impact on the operations of a substantial number of small rural hospitals. This analysis must conform to the provisions of section 604 of the RFA. For purposes of section 1102(b) of the Act, we define a small rural hospital as a hospital that is located outside of a Metropolitan Statistical Area and has fewer than 100 beds. As shown in Table 13, we estimate that the net revenue impact of this final rule on rural IRFs is to increase estimated payments by approximately 3.0 percent based on the data of the 132 rural units and 11 rural hospitals in our database of 1,118 IRFs for which data were available. We estimate an overall impact for rural IRFs in all areas except Rural South Atlantic and Rural East South Central of between 3.0 percent and 5.0 percent. As a result, we anticipate this final rule would have a positive impact on a substantial number of small rural hospitals.

Section 202 of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–04, enacted on March 22, 1995) (UMRA) also requires that agencies assess anticipated costs and benefits before issuing any rule whose mandates require spending in any 1 year of $100 million in 1995 dollars, updated annually for inflation. In 2020, that threshold is approximately $156 million. This final rule does not mandate any requirements for State, local, or tribal governments, or for the private sector.

Executive Order 13132 establishes certain requirements that an agency must meet when it issues a proposed rule (and subsequent final rule) that imposes substantial direct requirement costs on state and local governments, preempts state law, or otherwise has federalism implications. As stated, this final rule will not have a substantial effect on state and local governments, preempt state law, or otherwise have a federalism implication.

Executive Order 13771, titled Reducing Regulation and Controlling Regulatory Costs, was issued on January 30, 2017 and requires that the costs associated with significant new regulations ''shall, to the extent permitted by law, be offset by the elimination of existing costs associated with at least two prior regulations.'' It has been determined that this final rule is a transfer rule that does not impose more than de minimis costs and thus is not a regulatory action for the purposes of Executive Order 13771.

2. Detailed Economic Analysis

This final rule will update the IRF PPS rates contained in the FY 2020 IRF PPS final rule (84 FR 39054). Specifically, this final rule will update the CMG relative weights and average length of stay values, the wage index, and the outlier threshold for high-cost cases. This final rule will apply a MFP adjustment to the FY 2021 IRF market basket increase factor in accordance with section 1886(j)(3)(C)(ii)(I) of the Act. In addition, it adopts more recent OMB statistical area delineations and applies a transition wage index under the IRF PPS. We are also amending the IRF coverage requirements to remove the post-admission physician evaluation requirement and codify existing documentation instructions and guidance.

We estimate that the impact of the changes and updates described in this final rule will be a net estimated increase of $260 million in payments to IRF providers. This estimate does not include the implementation of the required 2 percentage point reduction of the market basket increase factor for any IRF that fails to meet the IRF quality reporting requirements (as discussed in section XI. of this final rule). The impact analysis in Table 13 of this final rule represents the projected effects of the updates to IRF PPS payments for FY 2021 compared with the estimated IRF PPS payments in FY 2020. We determine the effects by estimating payments while holding all other payment variables constant. We use the best data available, but we do not attempt to predict behavioral responses to these changes, and we do not make adjustments for future changes in such variables as number of discharges or case-mix.

We note that certain events may combine to limit the scope or accuracy of our impact analysis, because such an analysis is future-oriented and, thus, susceptible to forecasting errors because of other changes in the forecasted impact time period. Some examples could be legislative changes made by the Congress to the Medicare program that would impact program funding, or changes specifically related to IRFs. Although some of these changes may not necessarily be specific to the IRF

PPS, the nature of the Medicare program is such that the changes may interact, and the complexity of the interaction of these changes could make it difficult to predict accurately the full scope of the impact upon IRFs.

In updating the rates for FY 2021, we are implementing standard annual revisions described in this final rule (for example, the update to the wage index and market basket increase factor used to adjust the Federal rates). We are also implementing a productivity adjustment to the FY 2021 IRF market basket increase factor in accordance with section 1886(j)(3)(C)(ii)(I) of the Act. We estimate the total increase in payments to IRFs in FY 2021, relative to FY 2020, would be approximately $260 million.

This estimate is derived from the application of the FY 2021 IRF market basket increase factor, as reduced by a productivity adjustment in accordance with section 1886(j)(3)(C)(ii)(I) of the Act which yields an estimated increase in aggregate payments to IRFs of $220 million. Furthermore, there is an additional estimated $40 million increase in aggregate payments to IRFs due to the update to the outlier threshold amount. Therefore, summed together, we estimate that these updates will result in a net increase in estimated payments of $260 million from FY 2020 to FY 2021.

The effects of the updates that impact IRF PPS payment rates are shown in Table 13. The following updates that affect the IRF PPS payment rates are discussed separately below:

- The effects of the update to the outlier threshold amount, from approximately 2.6 percent to 3.0 percent of total estimated payments for FY 2021, consistent with section 1886(j)(4) of the Act.
- The effects of the annual market basket update (using the IRF market basket) to IRF PPS payment rates, as required by sections 1886(j)(3)(A)(i) and (j)(3)(C) of the Act, including a productivity adjustment in accordance with section 1886(j)(3)(C)(i)(I) of the Act.
- The effects of applying the budget-neutral labor-related share and wage index adjustment, as required under section 1886(j)(6) of the Act.
- The effects of the budget neutral changes to the wage index due to the OMB delineation revisions and the transition wage index policy.
- The effects of the budget-neutral changes to the CMG relative weights and average LOS values under the authority of section 1886(j)(2)(C)(i) of the Act.
- The total change in estimated payments based on the FY 2021 payment changes relative to the estimated FY 2020 payments.

3. Description of Table 13

Table 13 shows the overall impact on the 1,118 IRFs included in the analysis.

The next 12 rows of Table 13 contain IRFs categorized according to their geographic location, designation as either a freestanding hospital or a unit of a hospital, and by type of ownership; all urban, which is further divided into urban units of a hospital, urban freestanding hospitals, and by type of ownership; and all rural, which is further divided into rural units of a hospital, rural freestanding hospitals, and by type of ownership. There are 975 IRFs located in urban areas included in our analysis. Among these, there are 684 IRF units of hospitals located in urban areas and 291 freestanding IRF hospitals located in urban areas. There are 143 IRFs located in rural areas included in our analysis. Among these, there are 132 IRF units of hospitals located in rural areas and 11 freestanding IRF hospitals located in rural areas. There are 394 for-profit IRFs. Among these, there are 361 IRFs in urban areas and 33 IRFs in rural areas. There are 610 non-profit IRFs. Among these, there are 521 urban IRFs and 89 rural IRFs. There are 114 government-owned IRFs. Among these, there are 93 urban IRFs and 21 rural IRFs.

The remaining four parts of Table 13 show IRFs grouped by their geographic location within a region, by teaching status, and by DSH patient percentage (PP). First, IRFs located in urban areas are categorized for their location within a particular one of the nine Census geographic regions. Second, IRFs located in rural areas are categorized for their location within a particular one of the nine Census geographic regions. In some cases, especially for rural IRFs located in the New England, Mountain, and Pacific regions, the number of IRFs represented is small. IRFs are then grouped by teaching status, including non-teaching IRFs, IRFs with an intern and resident to average daily census (ADC) ratio less than 10 percent, IRFs with an intern and resident to ADC ratio greater than or equal to 10 percent and less than or equal to 19 percent, and IRFs with an intern and resident to ADC ratio greater than 19 percent. Finally, IRFs are grouped by DSH PP, including IRFs with zero DSH PP, IRFs with a DSH PP less than 5 percent, IRFs with a DSH PP between 5 and less than 10 percent, IRFs with a DSH PP between 10 and 20 percent, and IRFs with a DSH PP greater than 20 percent.

The estimated impacts of each policy described in this rule to the facility categories listed are shown in the columns of Table 13. The description of each column is as follows:

- Column (1) shows the facility classification categories.
- Column (2) shows the number of IRFs in each category in our FY 2021 analysis file.
- Column (3) shows the number of cases in each category in our FY 2021 analysis file.
- Column (4) shows the estimated effect of the adjustment to the outlier threshold amount.
- Column (5) shows the estimated effect of the update to the IRF labor-related share and wage index, in a budget-neutral manner.
- Column (6) shows the estimated effect of the revisions to the CBSA delineations and the transition wage index, in a budget-neutral manner.
- Column (7) shows the estimated effect of the update to the CMG relative weights and average LOS values, in a budget-neutral manner.
- Column (8) compares our estimates of the payments per discharge, incorporating all of the policies reflected in this final rule for FY 2021 to our estimates of payments per discharge in FY 2020.

The average estimated increase for all IRFs is approximately 2.8 percent. This estimated net increase includes the effects of the IRF market basket increase factor for FY 2021 of 2.4 percent, reduced by a productivity adjustment of 0.0 percentage point in accordance with section 1886(j)(3)(C)(ii)(I) of the Act. It also includes the approximate 0.4 percent overall increase in estimated IRF outlier payments from the update to the outlier threshold amount. Since we are making the updates to the IRF wage index, labor-related share and the CMG relative weights in a budget-neutral manner, they will not be expected to affect total estimated IRF payments in the aggregate. However, as described in more detail in each section, they will be expected to affect the estimated distribution of payments among providers.

TABLE 13—IRF IMPACT TABLE FOR FY 2021

[Columns 4 through 8 in percentage]

Facility classification	Number of IRFs	Number of cases	Outlier	FY 21 wage index and labor share	FY 21 wage index new CBSA and 5% cap	CMG weights	Total percent change [1]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total	1,118	410,883	0.4	0.0	0.0	0.0	2.8
Urban unit	684	161,642	0.7	0.1	0.0	0.0	3.2
Rural unit	132	20,758	0.7	0.0	0.1	0.0	3.2
Urban hospital	291	223,421	0.2	0.0	0.0	0.0	2.5
Rural hospital	11	5,062	0.0	0.0	−0.2	0.0	2.2
Urban For-Profit	361	218,350	0.2	0.0	0.0	0.0	2.5
Rural For-Profit	33	8,487	0.3	0.0	0.0	0.0	2.6
Urban Non-Profit	521	145,259	0.7	0.1	0.0	0.0	3.2
Rural Non-Profit	89	14,171	0.8	0.0	0.0	0.0	3.2
Urban Government	93	21,454	0.7	−0.1	0.2	0.0	3.2
Rural Government	21	3,162	0.4	0.0	0.0	0.1	3.0
Urban	975	385,063	0.4	0.0	0.0	0.0	2.8
Rural	143	25,820	0.6	0.0	0.0	0.0	3.0
Urban by region:							
Urban New England	29	16,117	0.4	−0.6	0.0	−0.1	2.1
Urban Middle Atlantic	132	48,820	0.5	0.4	−0.3	0.1	3.0
Urban South Atlantic	153	78,375	0.3	0.1	0.0	0.0	2.8
Urban East North Central	159	50,217	0.5	0.2	0.0	0.0	3.1
Urban East South Central	56	28,428	0.2	0.1	0.0	0.0	2.6
Urban West North Central	73	21,136	0.5	−0.6	0.0	0.0	2.1
Urban West South Central	188	85,336	0.3	0.1	0.1	0.1	3.0
Urban Mountain	87	30,648	0.4	−0.4	0.0	−0.1	2.3
Urban Pacific	98	25,986	0.8	−0.3	0.3	−0.1	3.2
Rural by region:							
Rural New England	5	1,347	0.5	0.6	0.0	−0.2	3.3
Rural Middle Atlantic	11	1,189	1.1	0.4	0.0	0.0	4.0
Rural South Atlantic	16	3,796	0.4	−0.3	−0.3	0.0	2.2
Rural East North Central	23	4,068	0.5	0.4	0.1	0.0	3.4
Rural East South Central	21	4,442	0.3	0.0	0.0	−0.1	2.6
Rural West North Central	20	3,047	0.8	−0.1	0.2	0.0	3.2
Rural West South Central	39	7,005	0.5	−0.2	0.1	0.2	3.0
Rural Mountain	5	563	1.2	−0.2	0.0	0.1	3.5
Rural Pacific	3	363	1.8	0.7	0.0	0.0	5.0
Teaching status:							
Non-teaching	1,012	363,781	0.4	0.0	0.0	0.0	2.8
Resident to ADC less than 10%	60	32,585	0.5	0.0	0.2	0.0	3.1
Resident to ADC 10%–19%	34	12,988	0.8	0.3	−0.1	0.1	3.4
Resident to ADC greater than 19%	12	1,529	0.4	0.1	0.2	0.1	3.1
Disproportionate share patient percentage (DSH PP):							
DSH PP = 0%	33	4,715	0.6	0.2	0.0	0.0	3.2
DSH PP <5%	142	60,645	0.3	0.1	−0.3	0.0	2.5
DSH PP 5%–10%	294	127,295	0.3	0.1	−0.1	0.0	2.8
DSH PP 10%–20%	393	147,404	0.4	−0.1	0.1	0.0	2.8
DSH PP greater than 20%	256	70,824	0.6	−0.1	0.1	0.0	3.1

[1] This column includes the impact of the updates in columns (4), (5), (6), and (7) above, and of the IRF market basket update for FY 2021 (2.4 percent), reduced by 0.0 percentage point for the productivity adjustment as required by section 1886(j)(3)(C)(ii)(I) of the Act.

4. Impact of the Update to the Outlier Threshold Amount

The estimated effects of the update to the outlier threshold adjustment are presented in column 4 of Table 13. In the FY 2020 IRF PPS final rule (84 FR 39095 through 39097), we used FY 2018 IRF claims data (the best, most complete data available at that time) to set the outlier threshold amount for FY 2020 so that estimated outlier payments will equal 3 percent of total estimated payments for FY 2020.

For the FY 2021 IRF PPS proposed rule, we used preliminary FY 2019 IRF claims data, and, based on that preliminary analysis, we estimated that IRF outlier payments as a percentage of total estimated IRF payments would be 2.6 percent in FY 2020. As we typically do between the proposed and final rules each year, we updated our FY 2019 IRF claims data to ensure that we are using the most recent available data in setting IRF payments. Therefore, based on updated analysis of the most recent IRF claims data for this final rule, we continue to estimate that IRF outlier payments as a percentage of total estimated IRF payments are 2.6 percent in FY 2021. Thus, we are adjusting the outlier threshold amount in this final rule to maintain total estimated outlier payments equal to 3 percent of total estimated payments in FY 2021. The estimated change in total IRF payments for FY 2021, therefore, includes an approximate 0.4 percent increase in payments because the estimated outlier portion of total payments is estimated to

increase from approximately 2.6 percent to 3 percent.

The impact of this outlier adjustment update (as shown in column 4 of Table 13) is to increase estimated overall payments to IRFs by 0.4 percent.

5. Impact of the Wage Index and Labor-Related Share

In column 5 of Table 13, we present the effects of the budget-neutral update of the wage index and labor-related share. The changes to the wage index and the labor-related share are discussed together because the wage index is applied to the labor-related share portion of payments, so the changes in the two have a combined effect on payments to providers. As discussed in section VI.C. of this final rule, we are updating the labor-related share from 72.7 percent in FY 2020 to 73.0 percent in FY 2021.

6. Impact of the Revisions to the OMB Delineations and the 5 Percent Cap Transition Policy

In column 6 of Table 13, we present the effects of the budget-neutral update of the geographic labor-market area designations under the IRF PPS and the application of the 5 percent cap on any decrease in an IRF's wage index for FY 2021 from the prior FY. As discussed in section VI.D.2. of this final rule, we are implementing the new OMB delineations as described in the September 14, 2018 OMB Bulletin No. 18–04, effective beginning with the FY 2021 IRF PPS wage index. Additionally, as discussed in section VI.D.3. of this final rule, we are applying a 5 percent cap on any decrease in an IRF's wage index from the prior FY to help mitigate any significant negative impacts that IRFs may experience due to our adoption of the revised OMB delineations under the IRF PPS.

7. Impact of the Update to the CMG Relative Weights and Average LOS Values

In column 7 of Table 13, we present the effects of the budget-neutral update of the CMG relative weights and average LOS values. In the aggregate, we do not estimate that these updates will affect overall estimated payments of IRFs. However, we do expect these updates to have small distributional effects.

8. Effects of the Removal of the Post-Admission Physician Evaluation

As discussed in section VIII. of this final rule, we are removing § 412.622(a)(4)(ii) that requires an IRF to complete a post-admission physician evaluation for all patients admitted to the IRF, beginning with FY 2021, that is, for all IRF discharges beginning on or after October 1, 2020.

We do not estimate that there will be a cost savings associated with our removal of the post-admission physician evaluation, as discussed in section VIII. of this final rule. While we are removing the post-admission physician requirement at § 412.622(a)(4)(ii), we are not removing any of the required face-to-face visits in § 412.622(a)(3)(iv). Thus, the rehabilitation physician or non-physician practitioners, as described in section X. of this final rule, will still be required to conduct face-to-face visits with the patient at least 3 days per week throughout the patient's stay in the IRF. Since this change does not decrease the amount of times the physician is required to visit and assess the patient, we do not estimate any cost savings to the IRF with this change.

9. Effects of the Amendment To Allow Non-Physician Practitioners To Perform Some of the Weekly Visits That Are Currently Required To Be Performed by a Rehabilitation Physician

As discussed in section X. of this final rule, we are amending the regulations at § 412.622(a)(3)(iv) to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law. We believe this final rule represents a decrease in administrative burden to rehabilitation physicians and providers beginning in FY 2021, that is, for all IRF discharges on or after October 1, 2020. We estimate the cost savings associated with this change in the following way.

The requirement at § 412.622(a)(3)(iv) must currently be fulfilled by a rehabilitation physician; therefore, to estimate the burden reduction of these changes, we obtained the hourly wage rate for a physician (there was not a specific wage rate for a rehabilitation physician) from the Bureau of Labor Statistics (*http://www.bls.gov/ooh/healthcare/home.htm*), which is $100.00. The hourly wage rate including fringe benefits and overhead is $200.00. We also obtained the average hourly wage rate for a non-physician practitioner. As discussed in section X. of this final rule, we defer to each state's scope of practice in determining who is recognized as a non-physician practitioner; however, for the purposes of this burden reduction estimation, we used a combined average wage from the Bureau of Labor Statistics for a nurse practitioner and a physician's assistant, as E.O. 13890 specifically identifies both of these practitioners, which is $53.50. The hourly wage rate including fringe benefits and overhead is $107.00.

We estimate that the required face-to-face physician visits at § 412.622(a)(3)(iv) take, on average, 30 minutes each to complete. In FY 2019, we estimate that there were approximately 1,117 total IRFs and on average 366 discharges per IRF annually. A patient's average length of stay in an IRF is 13 days. Therefore, we can estimate that on average, each patient receives at least six physician visits during their IRF admission. If each IRF has approximately 366 patients per year, and on average each patient receives at least six face-to-face visits with a rehabilitation physician that take an estimated 30 minutes each, annually the rehabilitation physician spends an estimated 1098 hours (366 patients × 6 visits × 0.5 hours) completing the required face-to-face physician visits. Allowing a non-physician practitioner to complete one of the required face-to-face visits for each patient beginning with the patient's second week of admission and estimating the patient's average length of stay is 13 days, we estimate a reduction of 183 hours for rehabilitation physicians per IRF annually (366 patients × 0.5 hours). We estimate a reduction of 204,411 hours for rehabilitation physicians across all IRFs annually (1,117 IRFs × 183 hours).

To estimate the total cost savings per IRF annually, assuming the IRF was able and willing to take full advantage of this regulatory provision, we multiply 183 hours by $200.00 (average physician's salary doubled to account for fringe and overhead costs) which equals $36,600. We then multiply 183 hours by $107.00 (average non-physician practitioners salary doubled to account for fringe and overhead costs) which equals $19,581. The total estimated cost savings per IRF is $17,019 ($36,600 − $19,581). Therefore, we can estimate the total cost savings across all IRFs annually for non-physician practitioners to conduct one of the 3 required face-to-face visits in a patient's average length of stay of 13 days would be $1.9 million ($17,019 × 1,117).

Please note that the $1.9 million in burden reduction described above will not solely be savings to the Medicare Trust Fund. We note that all of the cost savings reflected in this estimate will occur on the Medicare Part B side, in the form of reduced Part B payments to physicians under the Medicare Physician Fee Schedule (MPFS). Physician services provided in an IRF

are billed directly to Part B; therefore, IRFs do not pay physicians for their services. Therefore, the Medicare Trust Fund will be saving 80 percent of the overall cost savings and 20 percent of the savings will be to beneficiaries due to the coinsurance requirement generally applicable to Medicare Part B services. We estimate that if 100 percent of IRFs allowed non-physician practitioners to fulfill some of the requirement at § 412.622(a)(3)(iv) the overall savings to Medicare Part B would be $1.5 million. However, we are unsure if all IRFs will adopt this change. We are estimating that IRFs will adopt this change for about 50 percent of the services provided. Therefore, we estimate that the overall savings to the Medicare Trust Fund for allowing non-physician practitioners to fulfill some of the requirement at § 412.622(a)(3)(iv) would be $750,000.

We have also estimated the impacts of this change using the MPFS regarding what a physician would bill for these services versus what a non-physician practitioner would bill. The MPFS provides more than 10,000 physician services, the associated relative value units, a fee schedule state indicator and various payment policy indicators needed for payment adjustment. The MPFS pricing amounts are adjusted to reflect the variation in practice costs from area to area. For additional information regarding how to use the MPFS please visit the website at *https://www.cms.gov/apps/physician-fee-schedule/search/search-criteria.aspx.*

The face-to-face physician visits are considered separately payable services for physicians. Therefore, we can use the active pricing paid in calendar year 2020 for a national base payment.

There are different evaluation and management codes depending on the complexity of the patient and the duration of the visit. The current evaluation and management codes for the face-to-face visit in a facility are 99231 ($40.06), 99232 ($73.62), or 99233 ($106.10). Therefore, we estimate that the average national pricing which is a standard reference payment amount for the physicians without geographic adjustment for one of the face-to-face visits in a facility is $73.26. During a patient's average length of stay of 13 days, the rehabilitation physician is currently required to see the patient a minimum of six times. The current estimated total that physicians are currently billing per IRF patient for 6 face-to-face visits is $439.56 ($73.26 × 6 visits). In FY 2019, we estimate that there were approximately 1,117 total IRFs and on average 366 discharges per IRF annually. Therefore, we estimate that on average each year physicians are billing $179 million for these services ($439.56 × 366 patients × 1117 IRFs). For the purposes of this estimation, if we allow non-physician practitioners to conduct one of the three face-to-face visits beginning with the second week during a patient's admission with an average length of stay of 13 days, the rehabilitation would complete only 5 face-to-face visits during the patient's IRF admission. Therefore, the estimated total that a physician would bill per IRF patient for 5 face-to-face visits is $366.30 ($73.26 × 5 visits). We estimate that on average each year physicians across all IRFs are billing $149 million for these services ($366.30 × 366 patients × 1,117 IRFs).

According to the Medicare Benefit Policy Manual, chapter 15, section 80 (Pub. L. 100–02), as well as, the IRF PPS website (*https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c15.pdf*), non-physician practitioners are able to bill 80 percent of what physicians bill. Therefore, we estimate that on average non-physician practitioners will bill $58.61 per face-to-face visit. Per IRF patient with an average length of stay of 13 days, the non-physician practitioner will bill an estimated $58.61. Therefore, we estimate that on average each year a non-physician practitioner will bill $24 million for these services ($58.61 × 366 × 1,117).

We estimate that if 100 percent of IRFs allowed non-physician practitioners to fulfill some of the requirement at § 412.622(a)(3)(iv) the overall savings to Medicare Part B would be $6 million. However, we are unsure that IRFs will adopt this change. Commenters suggested that states do not have scope of practice laws that are IRF specific and at least as focused on the clinical training as necessitated through CMS requirements for a physician to practice in an IRF. States have developed scope of practice laws around acute care hospitals, rather than IRFs specifically, to allow NPPs to perform visits to admitted patients. Also, since the average length of stay for an IRF patient is 13 days, there would be limited opportunities for the NPP visit to occur. Considering the broad permissibility under scope of practice laws and average length of stays, we felt it was appropriate to pick a midpoint in formulating our estimation. Therefore, we are estimating that IRFs will adopt this change 50 percent of the time. To obtain more information on which to base our estimates, we solicited feedback from commenters to determine:

- How many IRFs would substitute non-physician practitioners for physicians; and
- Among the IRFs that do substitute non-physician practitioners for physicians, whether it will be for all requirements or only for specific requirements.

We did not receive any comments regarding this request for feedback. Therefore, we are finalizing our projected savings for the portion of the proposal that we are finalizing. In the absence of specific information on which to base a specific estimate of how much IRFs would be expected to substitute non-physician practitioners for one of the required physician visits at § 412.622(a)(3)(iv) beginning the second week of the patient's admission, we are assuming that IRFs will adopt this change about 50 percent of the time. Thus, the estimated overall savings to Medicare Part B will be $3 million. We are estimating that 80 percent of that will remain in the Medicare Trust Fund and 20 percent will be a savings to beneficiaries. Therefore, we estimate $2.4 million in savings to the Medicare program and $600,000 in savings to beneficiaries.

D. Alternatives Considered

The following is a discussion of the alternatives considered for the IRF PPS updates contained in this final rule.

Section 1886(j)(3)(C) of the Act requires the Secretary to update the IRF PPS payment rates by an increase factor that reflects changes over time in the prices of an appropriate mix of goods and services included in the covered IRF services.

As noted previously in this final rule, section 1886(j)(3)(C)(ii)(I) of the Act requires the Secretary to apply a productivity adjustment to the market basket increase factor for FY 2021. Thus, in accordance with section 1886(j)(3)(C) of the Act, we update the IRF prospective payments in this final rule by 2.4 percent (which equals the 2.4 percent estimated IRF market basket increase factor for FY 2021 reduced by a 0.0 percentage point productivity adjustment as determined under section 1886(b)(3)(B)(xi)(II) of the Act (as required by section 1886(j)(3)(C)(ii)(I) of the Act)).

We considered maintaining the existing CMG relative weights and average length of stay values for FY 2021. However, in light of recently available data and our desire to ensure that the CMG relative weights and average length of stay values are as reflective as possible of recent changes in IRF utilization and case mix, we believe that it is appropriate to update

the CMG relative weights and average length of stay values at this time to ensure that IRF PPS payments continue to reflect as accurately as possible the current costs of care in IRFs.

We considered not implementing the new OMB delineations for purposes of calculating the wage index under the IRF PPS; however, we believe implementing the new OMB delineations will result in wage index values being more representative of the actual costs of labor in a given area.

We considered having no transition period and fully implementing the revisions to the OMB delineations as described in section VI.D. of this final rule. However, this would not provide any time for IRF providers to adapt to their new wage index values. Thus, we believe that it is appropriate to provide for a transition period to mitigate any significant decreases in wage index values and to provide time for IRFs to adjust to their new labor market area delineations.

We considered using a blended wage index for all providers that would be computed using 50 percent of the FY 2021 IRF PPS wage index values under the FY 2020 CBSA delineations and 50 percent of the FY 2021 IRF PPS wage index values under the FY 2021 OMB delineations as was utilized in FY 2016 when we adopted the new CBSA delineations based on the 2010 decennial census. However, the revisions to the CBSA delineations announced in the latest OMB bulletin are not based on new census data; they are updates of the CBSA delineations adopted in FY 2016 based on the 2010 census data. As such, we do not believe it is necessary to implement the multifaceted 50/50 blended wage index transition that we established for the adoption of the new OMB delineations based on the decennial census data in FY 2016.

We considered transitioning the wage index to the revised OMB delineations over a number of years to minimize the impact of the wage index changes in a given year. However, we also believe this must be balanced against the need to ensure the most accurate payments possible, which argues for a faster transition to the revised OMB delineations. As discussed above in section VI.D. of this final rule, we believe that using the most current OMB delineations will increase the integrity of the IRF PPS wage index by creating a more accurate representation of geographic variation in wage levels. As such, we believe it will be appropriate to utilize a 5 percent cap on any decrease in an IRF's wage index from the IRF's final wage index in FY 2020 to allow the effects of our policies to be phased in over 2 years.

We considered maintaining the existing outlier threshold amount for FY 2021. However, analysis of updated FY 2019 data indicates that estimated outlier payments would be less than 3 percent of total estimated payments for FY 2021, by approximately 0.4 percent, unless we updated the outlier threshold amount. Consequently, we are adjusting the outlier threshold amount in this final rule to reflect a 0.4 percent increase thereby setting the total outlier payments equal to 3 percent, instead of 2.6 percent, of aggregate estimated payments in FY 2021.

We considered not removing the post-admission physician evaluation requirement at § 412.622(a)(3)(iv). However, we believe that IRFs are more than capable of determining whether a patient meets the coverage criteria for IRF services prior to admission. Additionally, we believe that if IRFs are doing their due diligence while completing the pre-admission screening by making sure each IRF candidate meets all of the requirements to be admitted to the IRF, then the post-admission physician evaluation is unnecessary.

We considered not amending § 412.622(a)(4)(i)(B) and (D) to codify our longstanding documentation instructions and guidance of the preadmission screening in regulation text. However, we believe for the ease of administrative burden and being able to locate the required elements of the preadmission screening documentation and the review and concurrence of a rehabilitation physician prior to the IRF admission needed for the basis of IRF payment in a timely fashion, we are should make the technical codifications in regulation text. Additionally, we considered codifying all of our longstanding required elements of the pre-admission screening documentation. However, as discussed in section IX. of this final rule, we believe that removing some of the pre-admission screening elements that were duplicative of data collected in various other documents in the patient's IRF medical record (such as the history and physical and the individualized overall plan of care) would reduce provider burden.

We considered not amending §§ 412.622(a)(3)(iv) and 412.29(e) to allow, beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation to conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law. However, we believe that it is critical, especially in light of the significant changes in health care that have occurred as a result of the PHE for the COVID–19 pandemic, for Medicare to recognize and expand the valuable role that non-physician practitioners play in assisting the rehabilitation physicians in implementing patients' plan of care in the IRF. We intend to monitor the quality of care in IRFs closely to ensure that the regulatory changes we are implementing improve care provided to vulnerable IRF patients.

In addition, we considered amending § 412.622(a)(3), (4), and (5) to allow non-physician practitioners to perform all of the IRF coverage requirements that are currently required to be performed by rehabilitation physicians, provided that these duties are within the practitioner's scope of practice under applicable state law. However, as discussed in section X. of this final rule, we received many comments from stakeholders expressing significant concerns about the quality of care that the vulnerable IRF patients would receive if we no longer required the rehabilitation physician to lead the care of the patients. Thus, we determined that it would be prudent to finalize only a portion of the proposed policy at this time. Based on extensive clinical input by CMS's medical officers and after careful consideration of these issues, we believe that the measured approach that we are finalizing in this final rule balances the commenters' concerns about maintaining the rehabilitation physician at the core of the patient's plan of care in the IRF with the benefits of expanding the role of non-physician practitioners, who play an important role in the interdisciplinary team and the care of complex patients.

E. Regulatory Review Costs

If regulations impose administrative costs on private entities, such as the time needed to read and interpret this final rule, we should estimate the cost associated with regulatory review. Due to the uncertainty involved with accurately quantifying the number of entities that will review the rule, we assume that the total number of unique commenters on the FY 2021 IRF PPS proposed rule will be the number of reviewers of this final rule. We acknowledge that this assumption may understate or overstate the costs of reviewing this final rule. It is possible that not all commenters reviewed the FY 2021 IRF PPS proposed rule in detail, and it is also possible that some

reviewers chose not to comment on the proposed rule. For these reasons we thought that the number of past commenters would be a fair estimate of the number of reviewers of this final rule.

We also recognize that different types of entities are in many cases affected by mutually exclusive sections of this final rule, and therefore, for the purposes of our estimate we assume that each reviewer reads approximately 50 percent of the rule. We sought comments on this assumption.

Using the wage information from the BLS for medical and health service managers (Code 11–9111), we estimate that the cost of reviewing this rule is $110.74 per hour, including overhead and fringe benefits (*https://www.bls.gov/oes/current/oes_nat.htm*). Assuming an average reading speed, we estimate that it would take approximately 2 hours for the staff to review half of this final rule. For each IRF that reviews the rule, the estimated cost is $221.48 (2 hours × $110.74). Therefore, we estimate that the total cost of reviewing this regulation is $590,908.64 ($221.48 × 2,668 reviewers).

F. Accounting Statement and Table

As required by OMB Circular A–4 (available at *https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf),* in Table 14, we have prepared an accounting statement showing the classification of the expenditures associated with the provisions of this final rule. Table 14 provides our best estimate of the increase in Medicare payments under the IRF PPS as a result of the updates presented in this final rule based on the data for 1,118 IRFs in our database.

TABLE 14—ACCOUNTING STATEMENT: CLASSIFICATION OF ESTIMATED EXPENDITURE

	Category	Transfers
Change in estimated transfers from FY 2020 IRF PPS to FY 2021 IRF PPS	Annualized monetized transfers	$260 million
	From whom to whom?	Federal government to IRF Medicare providers

Change in Estimated Costs:

Category	Costs
Annualized monetized cost in FY 2021 for IRFs due to the amendment of certain IRF coverage requirements	Reduction of ≤ $3 million.

G. Conclusion

Overall, the estimated payments per discharge for IRFs in FY 2021 are projected to increase by 2.8 percent, compared with the estimated payments in FY 2020, as reflected in column 8 of Table 13.

IRF payments per discharge are estimated to increase by 2.8 percent in urban areas and 3.0 percent in rural areas, compared with estimated FY 2020 payments. Payments per discharge to rehabilitation units are estimated to increase 3.2 percent in urban areas and 3.2 percent in rural areas. Payments per discharge to freestanding rehabilitation hospitals are estimated to increase 2.5 percent in urban areas and increase 2.2 percent in rural areas.

Overall, IRFs are estimated to experience a net increase in payments as a result of the proposed policies in this final rule. The largest payment increase is estimated to be a 5.0 percent increase for rural IRFs located in the Pacific region. The analysis above, together with the remainder of this preamble, provides an RIA.

In accordance with the provisions of Executive Order 12866, this regulation was reviewed by OMB.

List of Subjects in 42 CFR Part 412

Administrative practice and procedure, Health facilities, Medicare, Puerto Rico, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, the Centers for Medicare & Medicaid Services amends 42 CFR chapter IV as set forth below:

PART 412—PROSPECTIVE PAYMENT SYSTEMS FOR INPATIENT HOSPITAL SERVICES

■ 1. The authority citation for part 412 continues to read as follows:

Authority: 42 U.S.C. 1302 and 1395hh.

■ 2. Section 412.29 is amended by revising paragraph (e) to read as follows:

§ 412.29 Classification criteria for payment under the inpatient rehabilitation facility prospective payment system.

* * * * *

(e) Except for care furnished to patients in a freestanding IRF hospital solely to relieve acute care hospital capacity in a state (or region, as applicable) that is experiencing a surge, as defined in § 412.622, during the Public Health Emergency, as defined in § 400.200 of this chapter, have in effect a procedure to ensure that patients receive close medical supervision, as evidenced by at least 3 face-to-face visits per week by a licensed physician with specialized training and experience in inpatient rehabilitation to assess the patient both medically and functionally, as well as to modify the course of treatment as needed to maximize the patient's capacity to benefit from the rehabilitation process except that during the Public Health Emergency, as defined in § 400.200 of this chapter, for the COVID–19 pandemic such visits may be conducted using telehealth services (as defined in section 1834(m)(4)(F) of the Act). Beginning with the second week, as defined in § 412.622, of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation may conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law.

* * * * *

■ 3. Section 412.622 is amended—

■ a. By revising paragraphs (a)(3)(ii) and (iv) and (a)(4)(i)(B) and (D);

■ b. By removing paragraph (a)(4)(ii);

■ c. By redesignating paragraph (a)(4)(iii) as paragraph (a)(4)(ii); and

■ d. In paragraph (c) by adding the definition of ''Week'' in alphabetical order.

The revisions and addition read as follows:

§ 412.622 Basis of payment.

(a) * * *

(3) * * *

(ii) Except during the emergency period described in section 1135(g)(1)(B) of the Act, generally requires and can reasonably be expected to actively participate in, and benefit from, an intensive rehabilitation therapy program. Under current industry standards, this intensive rehabilitation therapy program generally consists of at least 3 hours of therapy (physical therapy, occupational therapy, speech-language pathology, or prosthetics/orthotics therapy) per day at least 5 days per week. In certain well-documented cases, this intensive rehabilitation therapy program might instead consist of at least 15 hours of intensive rehabilitation therapy per week. Benefit from this intensive rehabilitation therapy program is demonstrated by measurable improvement that will be of practical value to the patient in improving the patient's functional capacity or adaptation to impairments. The required therapy treatments must begin within 36 hours from midnight of the day of admission to the IRF.

* * * * *

(iv) Except for care furnished to patients in a freestanding IRF hospital solely to relieve acute care hospital capacity in a state (or region, as applicable) that is experiencing a surge during the Public Health Emergency, as defined in § 400.200 of this chapter, requires physician supervision by a rehabilitation physician. The requirement for medical supervision means that the rehabilitation physician must conduct face-to-face visits with the patient at least 3 days per week throughout the patient's stay in the IRF to assess the patient both medically and functionally, as well as to modify the course of treatment as needed to maximize the patient's capacity to benefit from the rehabilitation process, except that during a Public Health Emergency, as defined in § 400.200 of this chapter, such visits may be conducted using telehealth services (as defined in section 1834(m)(4)(F) of the Act). Beginning with the second week of admission to the IRF, a non-physician practitioner who is determined by the IRF to have specialized training and experience in inpatient rehabilitation may conduct 1 of the 3 required face-to-face visits with the patient per week, provided that such duties are within the non-physician practitioner's scope of practice under applicable state law.

(4) * * *

(i) * * *

(B) It includes a detailed and comprehensive review of each patient's condition and medical history, including the patient's level of function prior to the event or condition that led to the patient's need for intensive rehabilitation therapy, expected level of improvement, and the expected length of time necessary to achieve that level of improvement; an evaluation of the patient's risk for clinical complications; the conditions that caused the need for rehabilitation; the treatments needed (that is, physical therapy, occupational therapy, speech-language pathology, or prosthetics/orthotics); and anticipated discharge destination.

* * * * *

(D) It is used to inform a rehabilitation physician who reviews and documents his or her concurrence with the findings and results of the preadmission screening prior to the IRF admission.

* * * * *

(c) * * *

Week means a period of 7 consecutive calendar days beginning with the date of admission to the IRF.

Dated: July 23, 2020.

Seema Verma,

Administrator, Centers for Medicare & Medicaid Services.

Dated: July 29, 2020.

Alex M. Azar II,

Secretary, Department of Health and Human Services.

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