1. U.S. Coast Guard
2. NOAA Office of Law Enforcement
3. NOAA Office of General Counsel, Enforcement Section
F. Public Comment
G. Council Discussion and Action
6. American Samoa Archipelago
A. Motu Lipoti
B. Fono Report
C. Enforcement Issues
D. Community Activities and Issues
1. Report on the Governor's Fisheries Task Force Initiatives
2. Fisheries Development
a. Update on Funding for Super Alia Vessels and Local Fishery Business Development Initiatives
3. Fisheries Disaster Relief Project
E. Education and Outreach Initiatives
F. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific and Statistical Committee
G. Public Comment
H. Council Discussion and Action
7. Pelagic & International Fisheries
A. Specification of 2016 Bigeye Tuna Territorial Catch and Allocation Limits (Action Item)
B. Hawaii & American Samoa Longline Fisheries Reports
C. NBR Longline Bycatch Reports 2011–13
D. International Fisheries
1. WCPFC Science Committee
a. South Pacific Albacore Stock Assessment and Economic Performance
2. WCPFC Northern Committee
3. WCPFC Technical and Compliance Committee
4. Report on Majuro Purse Seine Big Eye Workshop
5. Tri Marine Petition
6. U.S. Proposals for WCPFC 12
7. Tokelau Arrangement
E. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific and Statistical Committee
F. Standing Committee Recommendations
G. Public Hearing
H. Council Discussion and Action
8. Protected Species
A. American Samoa Longline Biological Opinion
B. Update on Leatherback Turtle Interaction in the Hawaii Deep-set Longline Fishery
C. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific and Statistical Committee
C. Public Comment
D. Council Discussion and Action
9. Public Comment on Non-agenda Items

8:30 a.m.–5 p.m., Thursday, October 22, 2015

10. Program Planning and Research
A. ACL Specification for Territorial Bottomfish (Action Item)
1. P* Working Group Report
2. SEEM Working Group Report
3. Options for Territorial Bottomfish for Fishing Year 2016 and 2017
B. Integrated Stock Assessment Model for Data Poor Stocks
C. Territory Science Initiative Project Updates
D. Fishery Ecosystem Plan Modification (Action Item)
E. Regional, National and International Outreach and Education
F. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific and Statistical Committee
G. Standing Committee Recommendations
H. Public Hearing
I. Council Discussion and Action
11. Hawaii Archipelago & Pacific Remote Island Areas (PRIA)
A. Moku Pepa
B. Legislative Report
C. Enforcement Issues
D. Education and Outreach Initiatives
E. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific and Statistical Committee
F. Public Comment
G. Council Discussion and Action
12. Mariana Archipelago
A. Guam
1. Isla Informe
2. Legislative Report
3. Enforcement Issues
4. Community Activities and Issues
a. Report on Indigenous Fishing Rights Initiatives
b. Atlantis Integrated Ecosystem Model
c. Yigo Community Based Management Program (CBMP)
5. Education and Outreach Initiatives
B. Commonwealth of the Northern Mariana Islands
1. Arongol Falú
2. Legislative Report
3. Enforcement Issues
4. Community Activities and Issues
a. Report on Northern Islands CBMP meeting
5. Education and Outreach Initiatives
C. Advisory Group Report and Recommendations
1. Advisory Panel
2. Fishing Industry Advisory Committee
3. Regional Ecosystem Advisory Committee
4. Scientific & Statistical Committee
D. Public Comment
E. Council Discussion and Action
13. Administrative Matters
A. Financial Reports
B. Administrative Reports
C. Council Family Changes
D. Statement of Organization Practices and Procedures
E. Meetings and Workshops
F. Other Business
G. Standing Committee Recommendations
H. Public Comment
I. Council Discussion and Action
14. Election of Officers
15. Other Business

Non-emergency issues not contained in this agenda may come before the Council for discussion and formal Council action during its 163rd meeting. However, Council action on regulatory issues will be restricted to those issues specifically listed in this document and any regulatory issue arising after publication of this document that requires emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take action to address the emergency.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, (808) 522–8220 (voice) or (808) 522–8226 (fax), at least 5 days prior to the meeting date.

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

Dated: September 21, 2015.

Tracey L. Thompson,

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

[FR Doc. 2015–24255 Filed 9–23–15; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XE030

Taking of Marine Mammals Incidental to Specified Activities; San Francisco-Oakland Bay Bridge Pier E3 Demolition via Controlled Implosion

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

ACTION: Notice; issuance of an incidental take authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA) regulations, notification is hereby given that NMFS has issued an Incidental Harassment Authorization (IHA) to the California Department of Transportation (CALTRANS) to take, by harassment, small numbers of four species of marine mammals incidental to the San Francisco-Oakland Bay Bridge (SFOBB) Pier E3 demolition via controlled implosion in San Francisco Bay (SFB or Bay), between October 1 and December 30, 2015.

DATES: Effective October 1, 2015, through December 30, 2015.

ADDRESSES: Requests for information on the incidental take authorization should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910. A copy of the application containing a list of the references used in this document, NMFS' Environmental Assessment (EA), Finding of No Significant Impact (FONSI), and the IHA may be obtained by writing to the address specified above or visiting the Internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental/*. Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Shane Guan, Office of Protected Resources, NMFS, (301) 427–8401.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce 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 authorization is provided to the public for review.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined ''negligible impact'' in 50 CFR 216.103 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.''

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the U.S. can apply for a one-year authorization to incidentally take small numbers of marine mammals by harassment, provided that there is no potential for serious injury or mortality to result from the activity. Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny the authorization.

Summary of Request

On March 3, 2015, CALTRANS submitted a request to NMFS for the potential harassment of small numbers of marine mammals incidental to the dismantling of Pier E3 of the East Span of the original SFOBB in SFB, California, in fall 2015. CALTRANS is proposing to remove the Pier E3 via highly controlled implosion with detonations. On April 16, 2015, CALTRANS submitted a revision of its request with an inclusion of a test implosion before the bridge demolition. NMFS determined that the IHA application was complete on May 1, 2015.

Description of the Specified Activity

A detailed description of the CALTRANS SFOBB East Span Pier E3 demolition via controlled implosion is provided in the **Federal Register** notice for the proposed IHA (80 FR 44060; July 24, 2015). Since that time, no changes have been made to the proposed 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' proposal to issue an IHA to CALTRANS was published in the **Federal Register** on July 24, 2015 (80 FR 44060). That notice described, in detail, CALTRANS' activity, the marine mammal species that may be affected by the activity, and the anticipated effects on marine mammals. During the public comment period, the NMFS received one comment letter from the Marine Mammal Commission (Commission). The Commission concurred with NMFS preliminary finding and recommended that NMFS issue the requested incidental harassment authorization, subject to inclusion of the proposed mitigation, monitoring, and reporting measures.

Description of Marine Mammals in the Area of the Specified Activity

The marine mammal species under NMFS jurisdiction most likely to occur in the proposed construction area include Pacific harbor seal (*Phoca vitulina richardsi*), northern elephant seal (*Mirounga angustirostris*), California sea lion (*Zalophus californianus*), and harbor porpoise (*Phocoena phocoena*).

TABLE 1—MARINE MAMMAL SPECIES POTENTIALLY PRESENT IN REGION OF ACTIVITY

Species	ESA status	MMPA status	Occurrence
Harbor Seal	Not listed	Non-depleted	Frequent.
California Sea Lion	Not listed	Non-depleted	Occasional.
Northern Elephant Seal	Not listed	Non-depleted	Occasional.
Harbor Porpoise	Not listed	Non-depleted	Rare.

General information on the marine mammal species found in the San Francisco Bay can be found in Caretta *et al.* (2014), which is available at the following URL: *http://www.nmfs.noaa.gov/pr/sars/pdf/po2013.pdf*. Refer to that document for information on these species. A list of marine mammals in the vicinity of the action and their status are provided in Table 1. Specific information concerning these species in the vicinity of the proposed action area is provided in detail in the CALTRANS' IHA application.

Potential Effects of the Specified Activity on Marine Mammals

The underwater impulse noise from controlled implosion for SFOBB Pier E9 demolition in San Francisco Bay has the potential to result in Level B harassment of marine mammal species and stocks from behavioral disturbances and temporary hearing threshold shift (TTS) in the vicinity of the action area. The Notice of Proposed IHA included a discussion of the effects of anthropogenic noise on marine mammals, which is not repeated here. No instances of injury (including permanent hearing threshold shift, or PTS), serious injury, or mortality are

expected as a result of CALTRANS' activity given the mitigation and monitoring measures proposed, the brief duration of the activity, and the limited scale of the activity.

Potential Effects on Marine Mammal Habitat

The primary potential impacts to marine mammals and other marine species are associated with overpressure generated from the controlled underwater implosion, such that some fish in the immediate vicinity of the demolition site could be killed. These potential effects are discussed in detail in the **Federal Register** notice for the proposed IHA and are not repeated here.

Mitigation Measures

In order to issue an incidental take authorization 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 adverse 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.

For CALTRANS' proposed Pier E3 controlled implosion, NMFS is requiring CALTRANS to implement the following mitigation measures to minimize the potential impacts to marine mammals in the project vicinity as a result of the controlled underwater implosion. In addition to the measures contained in the **Federal Register** notice of Proposed IHA, the IHA requires CALTRANS to ensure that no harbor porpoise Level A harassment take would occur by using passive acoustic monitoring to detect harbor porpoise clicks and implement shutdown measure if clicks are detected. Furthermore, additional mitigation measures are included to ensure that no take would occur during the test implosion. No other change was made from the proposed mitigation measures published in the **Federal Register** notice (80 FR 44060; July 24, 2015) for the proposed IHA.

Time Restriction

Implosion of Pier E3 will only be conducted during daylight hours and with enough time for pre and post implosion monitoring, and with good visibility when the largest exclusion zone can be visually monitored.

Installation of Blast Attenuation System (BAS)

Prior to the Pier E3 demolition, CALTRANS should install a Blast Attenuation System (BAS) as described above to reduce the shockwave from the implosion.

Establishment of Level A Exclusion Zone

Due to the different hearing sensitivities among different taxa of marine mammals, NMFS has established a series of take thresholds from underwater explosions for marine mammals belonging to different functional hearing groups (Table 2). Under these criteria, marine mammals from different taxa will have different impact zones (exclusion zones and zones of influence).

CALTRANS will establish an exclusion zone for both the mortality and Level A harassment zone (permanent hearing threshold shift or PTS, GI track injury, and slight lung injury) using the largest radius estimated harbor and northern elephant seals. Estimates are that the isopleth for PTS would extend out to a radius of 1,160 ft (354 m) for harbor and northern elephant seals to 5,800 ft (1,768 m) for harbor porpoise; covering the entire areas for both Level A harassment and mortality. As harbor porpoises are unlikely to be in the area in November, the exclusion zone boundaries would be set around the calculated distance to Level A harassment for harbor and northern elephant seals. However, real-time acoustic monitoring (*i.e.,* active listening for vocalizations with hydrophones) also will be utilized to provide an additional level of confidence that harbor porpoises are not in the affected area.

TABLE 2—NMFS ACOUSTIC CRITERIA FOR MARINE MAMMALS IN THE SFOBB PIER E3 DEMOLITION AREA FROM UNDERWATER IMPLOSIONS

Group	Species	Level B harassment		Level A harassment	Serious injury		Mortality
		Behavioral	TTS	PTS	Gastro-intestinal tract	Lung	
High-freq cetacean.	Harbor porpoise	141 dB SEL.	146 dB SEL or 195 dB SPL_{pk}.	161 dB SEL or 201 dB SPL_{pk}.	237 dB SPL or 104 psi.	39.1M⅓ (1+[D/10.081])½ Pa-sec. where: M = mass of the animals in kg. D = depth of animal in m.	91.4M⅓ (1+[D/10.081])½ Pa-sec where: M = mass of the animals in kg D = depth of animal in m
Phocidae	Harbor seal & northern elephant seal.	172 dB SEL.	177 dB SEL or 212 dB SPL_{pk}.	192 dB SEL or 218 dB SPL_{pk}.			
Otariidae	California sea lion.	195 dB SEL.	200 dB SEL or 212 dB_{pk}.	215 dB SEL or 218 dB SPL_{pk}.			

* **Note:** All dB values are referenced to 1 μPa. SPL_{pk} = Peak sound pressure level; psi = pounds per square inch.

Adherence to calculated distances to Level A harassment for pinnipeds indicates that the radius of the exclusion zone would be 1,160 ft (354 m). The exclusion zone will be monitored by protected species observers (PSOs) and if any marine mammals are observed inside the exclusion, the implosion will be delayed until the animal leaves the area or at least 30 minutes have passed since the last observation of the marine mammal. Hearing group specific exclusion zone ranges for the controlled implosion are provided in Table 3.

There is no exclusion zone for the test implosion because of the small charge to be used.

Establishment of Level B Temporary Hearing Threshold Shift (TTS) Zone of Influence:

As shown in Table 2, for harbor and northern elephant seals, this will cover the area out to 212 dB peak SPL or 177 dB SEL, whichever extends out the furthest. Hydroacoustic modeling indicates this isopleth would extend out to 5,700 ft (1,737 m) from Pier E3. For harbor porpoises, this will cover the area out to 195 dB peak SPL or 146 dB SEL, whichever extends out the furthest. Hydroacoustic modeling indicates this isopleth would extend out to 26,500 ft (8,077 m) from Pier E3. As discussed previously, the presence of harbor porpoises in this area is unlikely but monitoring (including real-time acoustic monitoring) will be employed to confirm their absence. For California sea lions, the distance to the Level B TTS zone of influence will cover the area out to 212 dB peak SPL or 200 dB SEL. This distance was calculated at 470 ft (143 m) from Pier E3, well within the exclusion zone previously described. Hearing group specific Level B TTS zone of influence ranges for the controlled implosion are provided in Table 3.

Hearing group specific Level B TTS zone of influence ranges for the test implosion are provided in Table 4.

Establishment of Level B Behavioral Zone of Influence

TABLE 3—ESTIMATED DISTANCE TO NMFS MARINE MAMMAL EXPLOSION CRITERIA FOR LEVEL B HARASSMENT, LEVEL A HARASSMENT, AND MORTALITY FROM THE PROPOSED PIER E3 IMPLOSION. A BAS WITH 80% EFFICIENCY IN ACOUSTIC ATTENUATION IS ASSESSED FOR THE IMPLOSION. FOR THRESHOLDS WITH DUAL CRITERIA, THE LARGER DISTANCES (I.E., MORE CONSERVATIVE) ARE PRESENTED IN BOLD AND ARE USED FOR TAKE ESTIMATES

Species	Level B criteria		Level A criteria			Mortality
	Behavioral response	TTS Dual criteria	PTS Dual criteria	GI track	Lung injury	
Pacific Harbor Seal	9,700 ft (2,957 m)	**5,700 ft (1,737 m)** 440 ft (134 m)	**1,160 ft (354 m)** 70 ft. (21 m)	35 ft (11 m)	450 ft (137 m)	205 ft (63 m).
California Sea Lion	800 ft (244 m)	470 ft (143 m) **440 ft (134 m)**	**245 ft (75 m)** 97 ft. (30 m).	35 ft (11 m)	450 ft (137 m)	205 ft. (63 m).
Northern Elephant Seal	9,700 ft (2,957 m)	**5,700 ft (1,737 m)** 440 ft (134 m)	**1,160 ft (354 m)** 70 ft. (21 m)	35 ft (11 m)	450 ft (137 m)	205 ft. (63 m).
Harbor Porpoise	44,500 ft (13,564 m)	**26,500 ft (8,077 m)** 2,600 ft (792 m)	**5,800 ft (1,768 m)** 1,400 ft. (427 m).	35 ft (11 m)	450 ft (137 m)	205 ft. (63 m).

As shown in Table 2, for harbor seals and northern elephant seals, this will cover the area out to 172 dB SEL. Hydroacoustic modeling indicates this isopleth would extend out to 9,700 ft (2,957 m) from Pier E3. For harbor porpoises, this will cover the area out to 141 dB SEL. Hydroacoustic modeling indicates this isopleth would extend out to 44,500 ft (13,564 m) from Pier E3. As discussed previously, the presence of harbor porpoises in this area is unlikely but monitoring (including real-time acoustic monitoring) will be employed to confirm their absence. For California sea lions, the distance to the Level B behavioral harassment ZOI will cover the area out to 195 dB SEL. This distance was calculated at 800 ft (244 m) from Pier E3, well within the exclusion zone previously described. Hearing group specific Level B behavioral zone of influence ranges for the controlled implosion are provided in Table 3. There is no Level B behavioral ZOI for the test implosion because there would only be one detonation.

TABLE 4—ESTIMATED DISTANCES TO NMFS MARINE MAMMAL EXPLOSION CRITERIA FOR TEMPORARY HEARING THRESHOLD SHIFT (TTS) FROM THE PROPOSED TEST IMPLOSION

Species	Level B TTS
Pacific harbor seal	45 feet.
California sea lion	45 feet.
Northern elephant seal	45 feet.
Harbor porpoise	270 feet.

Delay of Implosion Activities

If any marine mammal is observed inside the exclusion zone of controlled implosion, the implosion will be delayed until the animal leaves the area or at least 30 minutes have passed since the last observation of the marine mammal.

If any marine mammal is observed inside the Level B ZOIs during the test implosion, the test implosion will be delayed until the animal leaves the area or at least 30 minutes have passed since the last observation of the marine mammal.

If harbor porpoise clicks are detected during passive acoustic monitoring, the implosion will be delayed for 30 minutes after the clicks are ceased.

Communication

All PSOs will be equipped with mobile phones and a VHF radio as a backup. One person will be designated as the Lead PSO and will be in constant contact with the Resident Engineer on site and the blasting crew. The Lead PSO will coordinate marine mammal sightings with the other PSOs and the real time acoustic monitor. PSOs will contact the other PSOs when a sighting is made within the exclusion zone or near the exclusion zone so that the PSOs within overlapping areas of responsibility can continue to track the animal and the Lead PSO is aware of the animal. If it is within 30 minutes of blasting and an animal has entered the exclusion zone or is near it, the Lead PSO will notify the Resident Engineer and blasting crew. The Lead PSO will keep them informed of the disposition of the animal.

Mitigation Conclusions

NMFS has carefully evaluated the mitigation measures and considered a range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned
- The practicability of the measure for applicant implementation.

Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

(1) Avoidance or minimization of injury or death of marine mammals wherever possible (goals 2, 3, and 4 may contribute to this goal).

(2) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of pile driving and pile removal or other activities expected to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

(3) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of pile driving and pile removal, or other activities expected to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

(4) A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of pile driving, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

(5) Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(6) For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation.

Based on our evaluation of the mitigation measures, as well as other measures considered by NMFS, NMFS has determined that the mitigation measures provide the means of effecting the least practicable impact on marine mammals 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 incidental take authorization (ITA) 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 ITAs 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. CALTRANS submitted a marine mammal monitoring plan as part of the IHA application. It can be found at *http://www.nmfs.noaa.gov/pr/permits/incidental.htm.*

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

(1) An increase in the probability of detecting marine mammals, both within the mitigation zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below;

(2) An increase in our understanding of how many marine mammals are likely to be exposed to levels of pile driving that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS;

(3) An increase in our understanding of how marine mammals respond to stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:

- Behavioral observations in the presence of stimuli compared to observations in the absence of stimuli (need to be able to accurately predict received level, distance from source, and other pertinent information);
- Physiological measurements in the presence of stimuli compared to observations in the absence of stimuli (need to be able to accurately predict received level, distance from source, and other pertinent information);
- Distribution and/or abundance comparisons in times or areas with concentrated stimuli versus times or areas without stimuli;

(4) An increased knowledge of the affected species; and

(5) An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

Monitoring Measures

Monitoring for implosion impacts to marine mammals will be based on the SFOBB pile driving monitoring protocol. Pile driving has been conducted for the SFOBB construction project since 2000 with development of several NMFS-approved marine mammal monitoring plans (CALTRANS 2004; 2013). Most elements of these marine mammal monitoring plans are similar to what would be required for underwater implosions. These monitoring plans would include monitoring an exclusion zone and ZOIs for TTS and behavioral harassment described above. In addition, CALTRANS shall implement passive acoustic monitoring. All monitoring will be conducted by NMFS-approved PSOs. A change is made from the **Federal Register** notice (80 FR 44060; July 24, 2015) for the proposed IHA to clarify that a minimum of 10 protected species observers would be required for marine mammal monitoring during the controlled implosion. No other change was made from the proposed monitoring measures published in the **Federal Register** notice for the proposed IHA.

(1) Protected Species Observers

A minimum of 8–10 PSOs would be required during the Pier E3 controlled implosion so that the exclusion zone, Level B Harassment TTS and Behavioral ZOIs, and surrounding area can be monitored. One PSO would be designated as the Lead PSO and would receive updates from other PSOs on the presence or absence of marine mammals within the exclusion zone and would notify the Blasting Supervisor of a cleared exclusion zone to the implosion.

(2) Monitoring Protocol

PSOs shall be positioned near the edge of each of the threshold criteria zones and shall utilize boats, barges, bridge piers and roadway, and sites on Yerba Buena Island and Treasure Island,

as described in Figure 3 of the CALTRANS Marine Mammal Monitoring Plan. The Lead PSO shall be located with the Department Engineer and the Blasting Supervisor (or person that will be in charge of detonating the charges) during the implosion.

The Lead PSO will be in contact with other PSOs and the acoustic monitors. As the time for the implosion approaches, any marine mammal sightings would be discussed between the Lead PSO, the Resident Engineer, and the Blasting Supervisor. If any marine mammals enter the exclusion zone within 30 minutes of blasting, the Lead PSO will notify the Resident Engineer and Blasting Supervisor that the implosion may need to be delayed. The Lead PSO will keep them informed of the disposition of the animal. If the animal remains in the exclusion zone, blasting will be delayed until it has left the exclusion zone. If the animal dives and is not seen again, blasting will be delayed at least 30 minutes. Once the implosion has occurred, the PSOs will continue to monitor the area for at least 60 minutes.

(3) Post-Implosion Survey

Although any injury or mortality from the implosion of Pier E3 is very unlikely, boat or shore surveys will be conducted for the three days following the event to determine if there are any injured or stranded marine mammals in the area. If an injured or dead animal is discovered during these surveys or by other means, the NMFS-designated stranding team will be contacted to pick up the animal. Veterinarians will treat the animal or conduct a necropsy to attempt to determine if it stranded was a result of the Pier E3 implosion.

(4) Monitoring Data Collection

Each PSO will record their observation position, start and end times of observations, and weather conditions (sunny/cloudy, wind speed, fog, visibility). For each marine mammal sighting, the following will be recorded, if possible:

- Species
- Number of animals (with or without pup/calf)
- Age class (pup/calf, juvenile, adult)
- Identifying marks or color (scars, red pelage, damaged dorsal fin, etc.)
- Position relative to Pier E3 (distance and direction)
- Movement (direction and relative speed)
- Behavior (logging [resting at the surface], swimming, spyhopping [raising above the water surface to view the area], foraging, etc.)
- Duration of sighting or times of multiple sightings of the same individual

(5) Real Time Acoustic Monitoring for Harbor Porpoises

While harbor porpoises are not expected to be within the CALTRANS' Pier E3 implosion Level B TTS ZOI (within 26,500 ft [8,077 ms]) in November, real time acoustic monitoring to confirm species absence shallow be implemented as an added measure in addition to active monitoring by trained visual PSOs. Harbor porpoises vocalize frequently with other animals within their group, and use echolocation to navigate and to locate prey. Therefore, as an additional monitoring tool, a real time acoustic monitoring system will be used to detect the presence or absence of harbor porpoises as a supplement to visual monitoring.

The system would involve two bio-acousticians monitoring the site in real time, likely near the north end of Treasure Island as most harbor porpoises appear to pass through the area north of Treasure Island before heading south toward the East Span of the SFOBB. A calibrated hydrophone or towed array would be suspended from a boat and/or several sonobuoys (acoustic information is sent via telemetry to the acoustic boat) or a hydrophone moored offshore with a cable leading to a shore based acoustic station will be deployed outside of the monitoring area of Pier E3. All equipment will be calibrated and tested prior to the implosion to ensure functionality. This system would not be able to give an accurate distance to the animal but would either determine that no cetaceans are in the area or would provide a relative distance and direction so that PSOs could search for the cetaceans and determine if those animals have entered or may enter the Pier E3 implosion area. The bio-acousticians would be in communication with the Lead PSO and would alert the crew to the presence of any cetacean approaching the monitoring area. It would also provide further confirmation that there are no cetaceans around Pier E3 in addition to the visual observations documenting no observations.

(6) Hydroacoustic Monitoring for Underwater Implosion

The purpose of hydroacoustic monitoring during the controlled implosion of Pier E3 is twofold: (1) To evaluate distances to marine mammal impact noise criteria; and (2) to improve the prediction of underwater noise for assessing the impact of the demolition of the remaining piers through future controlled implosions.

Monitoring of the implosion is specific to two regions around Pier E3 with unique methods, approaches, and plans for each of these regions. These regions include the ''near field'' and the ''far field''. For Pier E3, the near field will comprise measurements taken within 500 ft of the pier while the far field will comprise measurements taken at 500 feet and all greater distances.

Measurements inside the BAS will be made with near and far field systems using PCB 138A01 transducers. At the 100-ft distance, the near field system will use another PCB 138A01 transducer while the far field system will use both a PCB 138A01 transducer and a Reson TC4013 hydrophone. Prior to activating the BAS, ambient noise levels will be measured. While the BAS is operating and before the test implosion, background noise measurements will also be made. After the test implosion, the results will be evaluated to determine if any final adjustments are needed in the measurement systems prior to the Pier E3 controlled implosion. Pressure signals will be analyzed for peak pressure and SEL values prior to the scheduled time of the Pire E3 controlled implosion.

Reporting Measures

CALTRANS is required to submit a draft monitoring report within 90 days after completion of the construction work or the expiration of the IHA, whichever comes earlier. This draft report would detail the monitoring protocol, summarize the data recorded during monitoring, and estimate the number of marine mammals that may have been harassed. NMFS would have an opportunity to provide comments on the draft report within 30 days, and if NMFS has comments, CALTRANS would address the comments and submit a final report to NMFS within 30 days. If no comments are provided by NMFS after 30 days receiving the report, the draft report is considered to be final.

Marine Mammal Stranding Plan

In addition, a stranding plan will be prepared in cooperation with the local NMFS-designated marine mammal stranding, rescue, and rehabilitation center. Although mitigation measures would likely prevent any injuries, preparations will be made in the unlikely event that marine mammals are injured. Elements of that plan would include the following:

1. The stranding crew would prepare treatment areas at the NMFS-designated facility for cetaceans or pinnipeds that

may be injured from the implosion. Preparation would include equipment to treat lung injuries, auditory testing equipment, dry and wet caged areas to hold animals, and operating rooms if surgical procedures are necessary. Equipment to conduct auditory brainstem response hearing testing would be available to determine if any inner ear threshold shifts (TTS or PTS) have occurred (Thorson *et al.* 1999).

2. A stranding crew and a veterinarian would be on call near the Pier E3 site at the time of the implosion to quickly recover any injured marine mammals, provide emergency veterinary care, stabilize the animal's condition, and transport individuals to the NMFS-designated facility. If an injured or dead animal is found, NMFS (both the regional office and headquarters) will be notified immediately even if the animal appears to be sick or injured from other than blasting.

3. Post-implosion surveys would be conducted immediately after the event and over the following three days to determine if there are any injured or dead marine mammals in the area.

4. Any veterinarian procedures, euthanasia, rehabilitation decisions and time of release or disposition of the animal will be at the discretion of the NMFS-designated facility staff and the veterinarians treating the animals. Any necropsies to determine if the injuries or death of an animal was the result of the blast or other anthropogenic or natural causes will be conducted at the NMFS-designated facility by the stranding crew and veterinarians. The results will be communicated to both CALTRANS and to NMFS as soon as possible with a written report within a month.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, 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].

Numbers of marine mammals within the Bay may be incidentally taken during demolition using controlled charges (impulse sound) related to the demolition of the original East Span of the SFOBB were calculated based on acoustic propagation models for each functional hearing group and the estimated density of each species in the project vicinity. Specifically, the takes estimates are calculated by multiplying the ensonified areas that are specific to each functional hearing group by the density of the marine mammal species.

Marine Mammal Density Estimates

There are no systematic line transect surveys of marine mammals within San Francisco Bay, therefore, the in water densities of harbor seals, California sea lions, and harbor porpoises were calculated from 14 years of observations during monitoring for the SFOBB construction and demolition. During the 210 days of monitoring (including 15 days of baseline monitoring in 2003), 657 harbor seals, 69 California sea lions and three harbor porpoises were observed within the waters of the east span of the SFOBB. Density estimates for other species were made from stranding data provided by the MMC (Sausalito, CA; Northern elephant seal).

(1) Pacific Harbor Seal

Most data on harbor seal populations are collected while the seals are hauled out. This is because it is much easier to count individuals when they are out of the water. In-water density estimates rely on haul-out counts, the percentage of seals not on shore based on radio telemetry studies, and the size of the foraging range of the population. Harbor seal density in the water can vary greatly depending on weather conditions or the availability of prey. For example, during Pacific herring runs further north in the Bay (near Richardson Bay, outside of the Pier E3 hydroacoustic zone) in February 2014, very few harbor seals were observed foraging near Yerba Buena Island (YBI) or transiting through the SFOBB area for approximately two weeks. Sightings went from a high of 16 harbor seal individuals foraging or in transit in one day to 0–2 seals per day in transit or foraging through the SFOBB area (CALTRANS 2014). Calculated harbor seal density is a per day estimate of harbor seals in a 1 km^2 area within the fall/winter or spring/summer seasons.

Harbor seal density for the proposed project was calculated from all observations during SFOBB Project monitoring from 2000 to 2014. These observations included data from baseline, pre, during and post pile driving and onshore implosion activities. During this time, the population of harbor seals within the Bay has remained stable (Manugian 2013), therefore, we do not anticipate significant differences in numbers or behaviors of seals hauling out, foraging or in their movements over that 15 year period. All harbor seal observations within a km^2 area were used in the estimate. Distances were recorded using a laser range finder (Bushnell Yardage Pro Elite 1500; ±1.0 yards accuracy). Care was taken to eliminate multiple observations of the same animal although this was difficult when more than three seals were foraging in the same area.

Density of harbor seals was highest near YBI and Treasure Island, probably due to the haul-out site and nearby foraging areas in the Coast Guard and Clipper coves. Therefore, density estimates were calculated for a higher density area within 3,936 ft (1,200 m) west of Pier E3, which includes these two foraging coves. A lower density estimate was calculated from the area east of Pier E3 and beyond 3,936 ft (1,200 m) to the north and south of Pier E3.

These density estimates were then extrapolated to the threshold criteria areas delineated by the hydroacoustic models to calculate the number of harbor seals likely to be exposed.

(2) California Sea Lion

Most data on California sea lion populations are collected while the seals are hauled out as it is much easier to count individuals when they are out of the water. In-water density estimates rely on haul-out counts, the percentage of sea lions not on shore based on radio telemetry studies, and the size of the foraging range of the population. Sea lion density, like harbor seal densities, in the water can vary greatly depending on weather conditions, the availability of prey, and the season. For example, sea lion density increases during the summer and fall after the end of the breeding season at the Southern California rookeries.

For the proposed project, California sea lion density was calculated from all observations during SFOBB monitoring from 2000 to 2014. These observations included data from baseline, pre, during and post pile driving and onshore implosion activities. During this time, the population of sea lions within the Bay has remained stable as have the numbers observed near the SFOBB (Manugian 2013). As a result, we do not anticipate significant differences in the number of sea lion or their movements over that 15 year period. All sea lion observations within a km^2 area were used in the estimate. Distances were recorded using a laser range finder (Bushnell Yardage Pro Elite 1500; ±1.0 yards accuracy). Care was taken to eliminate multiple observations of the same animal, although most sea lion observations involve a single animal.

Calculated California sea lion density is a per day estimate of sea lions in a one km² area within the fall/winter or spring/summer seasons.

(3) Northern Elephant Seal

Northern elephant seal density around Pier E3 was calculated from the stranding records of the MMC from 2004 to 2014. These data included both injured or sick seals and healthy seals. Approximately 100 elephant seals were reported within the Bay during this time, most of these hauled out and were likely sick or starving. The actual number of individuals within the Bay may be higher as not all individuals would necessarily have hauled out. Some individuals may have simply left the Bay soon after entering. Data from the MMC show several elephant seals stranding on Treasure Island and one healthy elephant seal was observed resting on the beach in Clipper Cove in 2012. Elephant seal pups or juveniles also may strand after weaning in the spring and when they return to California in the fall (September through November).

(4) Harbor Porpoise

Harbor porpoise density was calculated from all observations during SFOBB monitoring from 2000 to 2014. These observations included data from baseline, pre, during and post pile driving and onshore implosion activities. Over this period, the number of harbor porpoises that were observed entering and using the Bay increased. During the fifteen years of observational data around the SFOBB Project, only four harbor porpoises were observed and all occurred from 2006 to 2014 (including two in 2014). All harbor porpoise observations within a km² area were used in the estimate. Distances were recorded using a laser range finder (Bushnell Yardage Pro Elite 1500; ±1.0 yards accuracy).

A summary of marine mammal density information is provided in Table 5.

TABLE 5—ESTIMATED IN-WATER DENSITY OF MARINE MAMMALS THAT MAY OCCUR IN THE VICINITY OF CALTRANS' PROPOSED PIER E3 CONTROLLED IMPLOSION AREA

Species	Main season of occurence	Density within 1,200m of SFOBB (animals/km²)	Density beyond 1,200m of SFOBB (animals/km²)
Pacific Harbor Seal	Spring–Summer (pupping/molt seasons)	0.30	0.15.
Pacific Harbor Seal	Fall–Winter	0.77	0.15.
Sea Lion	Late Summer–Fall (Post Breeding Season)	0.12	0.12.
Sea Lion	Late Spring–Early Summer (Breeding Season)	0.06	0.06.
Northern Elephant Seal	Late Spring–Early Winter (Pups After First Trip To Sea)	0.03	0.03.
Harbor Propoise	All Year	Very Low, estimated at 0.004.	Very Low, estimated at 0.004.

Impact Zones Modeling

Since the proposed Pier E3 controlled implosion would be carried as a confined explosion, certain elements were taken into the modeling process beyond a simple open-water blast model. Confinement is a concept in blasting that predicts the amount of blast energy that is expected to be absorbed by the surrounding structural material, resulting in the fracturing necessary for demolition. The energy beyond that absorbed by the material is the energy that produces the pressure wave propagating away from the source. NMFS has determined that modeling with confinement was appropriate for the proposed Pier E3 blast by evaluating blast results from case study data for underwater implosions similar to the SFOBB Pier E3 implosion. In addition, the NMFS worked with CALTRANS and compared case study results to published blast models that incorporate a degree of confinement.

Data from 39 comparable underwater concrete blasts were used by CALTRANS to evaluate potential equations for modeling blast-induced peak pressures and subsequent effects to marine mammals (Kiewit-Mason, pers. Comm 2015 in CALTRANS 2015). All 39 blasts occurred in approximately 55 ft (16.8 m) of water, similar to the maximum water depth around Pier E3. In addition, all blasts had burdens (*i.e.,* distance from the charge to the outside side of the material being fractured) of approximately 1.5 to 2 ft (0.5 to 0.6 m). Burdens for Pier E3 also are estimated to be in this range. Data provided included the charge weight, observed peak pressure, distance of peak pressure observation, and the modeled peak pressure using Cole's confined equation, Cole's unconfined equation, and Oriard's conservative concrete equation (Cole 1948; Oriard 2002).

Using these data, appropriate equations for modeling the associated hydroacoustic impacts are established for the Pier E3 controlled implosion. Cole's unconfined equation greatly overestimated peak pressures for all blasts while Cole's confined equation appeared to most accurately predict observed peak pressures. Oriard's conservative concrete equation overestimated peak pressures, but not as dramatically as under Cole's unconfined equation. NMFS and CALTRANS have opted to use more conservative methods to ensure an additional level of safety when predicting the monitoring zone and potential impact areas to marine mammals from the proposed controlled implosion project.

The applicable metrics discussed are the peak pressure (P_{pk}) expressed in dB, the accumulated sound exposure level (SEL) also expressed in dB, and the positive acoustic impulse (I) in Pa-sec. The criteria for marine mammals are grouped into behavioral response, slight injury, mortality, and the specific acoustic thresholds depend on group and species. These are summarized in Table 2. The metrics for these are criteria defined as:

(1) Peak pressure level

$$L_{pk} = 20\log_{10}\left(P_{pk}/P_{ref}\right) \quad (1)$$

where L_{pk} is the peak level in dB and P_{ref} is the reference pressure of 1μPa;

(2) SEL

$$SEL = 20\log_{10}\left(\int_0^T \frac{P^2(t)dt}{P_{ref}^2 \cdot T_{ref}}\right) \quad (2)$$

where T is the duration of the event, $P^2(t)$ is the instantaneous pressure squared and T_{ref} is the reference time of 1 second;

(3) Impulse

$$I = \int_0^T \left(P(t)dt/P_{ref}\right) \quad (3)$$

where T is the duration of the initial positive portion of $P(t)$. In order to calculate these quantities, $P(t)$ for the blast event is needed as a function of distance from the blast, or alternatively, empirical relationship can be used for L_{pk} and I.

General Assumptions

The blast event will consist of a total of 588 individual delays of varying charge weight; the largest is 35 pounds/delay and the smallest is 21 pounds/delay. The blasting sequence is rather complex. On the full height walls, 30 pound weights will be used for the portion below mud line, 35 pound weights will be used in the lower structure immediately above mud line, 29.6 pounds in the midstructure, and 21 pounds in the upper structure. Full details on the delay weights and locations can be found in the Blast Plan (CALTRANS 2015). Blasts will start in several interior webs of the southern portion of the structure followed by the outer walls of the south side. The blasts in the inner walls will occur just prior to the adjacent outer walls. The interior first, exterior second blast sequence will continue across the structure moving from south to north. The time for the 588 detonations is 5.3 seconds with a minimum delay time of 9 milliseconds (ms) between detonations. As the blasting progresses, locations to east, north, and west of the pier will be shielded from the blasting on the interior of the structure from the still-standing exterior walls of the pier. However, towards the conclusion of the blast, each direction will experience blasts from the outer walls that are not shielded.

To estimate P_{pk} and $P^2(t)$, several assumptions were made. For simplification, it was assumed that there is only one blast distance and it is to the closest point on the pier from the receiver point. In actuality for almost all explosions, distances from the blast will be greater as the pier is approximately 135 ft (41 m) across and 80 ft (24 m) wide. Based on these dimensions, the actual blast point could be up to 135 ft (41 m) further from the receptor point used for the calculation. As a result, the calculated peak level is the maximum expected for one 35 pound blast while the other levels would be lower depending on the distance from the actual blast location to the calculation point and weight of the charge. In other words, the pressure received at the calculation point would not be 588 signals of the same amplitude, but would be from one at the estimated level for a 35 pound charge and 587 of varying lower amplitudes. Similarly, in the vertical direction, the location varies over a height of about 50 ft (15 m) and those blasts that are not at the same depth as the receiver would also be lower. This effect of variation in assumed blast to receiver distance will be most pronounced close to the pier, while at distances of about 1,000 ft (305 m) or greater, the effect would be less than 1 dB.

In the calculations, it was also assumed that there would be no self-shielding of the pier as the explosions progress. From the above discussion of the blast sequence, some shielding of the blasts along the interior of the pier will occur. However, the blasts that occur in outer wall (towards the end of the implosion) will not be shielded for all blasts. A blast in the outer wall that has a direct line of sight to the receptor calculation point will not be shielded and will generate the highest peak

pressure relative to be compared to the L_{pk} criterion. The cumulative SEL and the root-mean-squared (RMS) levels; however, will be reduced to some degree by the outer walls until they are demolished as these metrics are defined by the pressure received throughout the entire 5.3 second event. However, due to the complexity of the blast sequence, this shielding effect was not considered in the calculated SEL and RMS levels.

Based on the Blast Plan (CALTRANS 2015), the delays are to be placed in 2¾ to 3 inch (7 to 7.6 cm) diameter holes drilled into the concrete pier structure. The outer walls of the pier are nominally 3 ft-11½ inch (1.5 m) thick and inner walls are nominally 3 ft (0.9 m) thick. Individual blasts should be not exposed to open water and some confinement of the blasts is expected. For confined blasts, the predicted pressures can be reduced by 65 to 95% (Nedwell and Thandavamoorthy 1992; Rickman 2000; Oriard 2002; Rivey 2011), corresponding to multiplication factors from 0.35 to 0.05, respectively. Based on a review of the available literature and recent data from similar explosive projects, CALTRANS and NMFS decided to use a conservative confinement factor of *K*=7500 which equates to a 65% reduction in pressure and by a multiplication factor of 0.3472 (Eq. 4).

Another assumption was to consider only the direct wave from an individual blast. In shallow water, the signal at the receiver point could consist of the direct wave, surface-relief wave generated by the water/air interface, a reflected wave from the bottom, and a wave transmitted through the bottom material (USACE 1991). For estimating P_{pk}, only the direct wave is considered as it will have the highest magnitude and will arrive at the receiver location before any other wave component. However, $P(t)$ after the arrival of the direct wave peak pressure will be effected. The surface-relief wave is negative so that when it arrives at the receiver location, it will reduce the positive pressure of the direct wave and can make the total pressure negative at times after the arrival of the initial positive peak pressure. Since the SEL is a pressure squared quantity, any negative pressure can also contribute to the SEL. However, the amplitude and arrival time of the surface-relief wave depends on the geometry of the propagation case, that is, depth of water, depth of blast, and distance and depth of the receiver point. The effect of this assumption is discussed further in the section on SEL.

Estimation of Peak Pressure

Peak pressures were estimated by following the modified version of the Cole Equation for prediction of blasts in open, deep water (Cole 1948). The peak pressure is determined by:

$$P_{pk} = K(\lambda)^{-1.13} \quad (4)$$

where P_{pk} is peak pressure in pounds per square inch (psi), and λ is the scaled range given by $R/W^{1/3}$ in which R is the distance in feet and W is the weight of the explosive charge in pounds. A modified version of the Cole Equation has been documented in U.S. Army Corps of Engineer (USACE) Technical Letter No. 1110–8–11(FR) and is applicable to shallow water cases such as that of the Pier E3 demolition (USACE 1991). The constant K factor multiplier in the USACE calculation is 21,600 for an open-water blast instead of the 22,550 from the original Cole Expression. This factor is slightly less (~4%) than the original Cole. The decay factor (-1.13) used in the USACE modified equation remains the same as the original Cole Equation. To account for the confining effect of the concrete pier structure, a conservative K factor of 7,500 was used corresponding to multiplying USACE P_{pk} by a factor of 0.3472. With a minimum delay between of blast of 9 ms, the individual delays will be spaced sufficiently far in time to avoid addition of the peak pressures. In this case, the peak pressure is defined by that calculated for the largest charge weight of 35 pounds/delay. A BAS is specified in the Blast Plan. Based on the literature and recent results from similar projects, reductions in the pressure peak of 85% to 90% or more are expected. For determining P_{pk} in this analysis, a conservative reduction of 80% has been used. Based on values of confinement, BAS performance, and the ''General Assumptions'' above, the calculated peak pressures are expected to be conservative.

Estimation of SEL Values

Estimating the weighted SEL values for the different groups/species is a multiple step process. The first step is to estimate SEL values as a function of distance from the blast pressure versus time histories for each of the six charge weights as a function of distance. The open-water equation used for this calculation was that modified by the USACE (1991) based on methods pioneered by Cole (1948). Pressure as a function of time is given by:

$$P(t) = P_{pk} e^{-\left(\frac{t-t_a}{\theta}\right)} \quad (5)$$

where t_a is given as R/5,000 and θ is:

$$\theta = 6.0 \times 10^{-5} W^{1/3} (\lambda)^{0.18} \quad (6)$$

These calculations were then extended to distances out to 160,000 ft (48.8 km).

As discussed previously, there are other wave components that could be considered in the SEL estimation, including the surface relief wave, reflection from the bottom, and transmission through and re-radiation from the bottom. Little or no contribution is expected from the bottom based on its sedimentary nature and previous experiences from measuring noise from underwater pile driving in the area around Pier E3. The

negative surface relief wave could be a factor in the SEL estimation. This wave could either increase or decrease the SEL depending on its arrival time relative to the direct wave. For small differences in arrival time, the surface relief will decrease the total SEL as a portion of the positive direct wave is negated by the addition of the negative surface relief wave. For closer distances and when the receptor and blast locations are near the bottom, the total SEL can become greater than the direct wave SEL, but only by less than 3 dB. However, whenever the source or receiver is near the surface, the direct wave SEL will be greater than the total SEL and can approach being 10 dB greater for distances beyond 1,000 ft (305 m). As a result, the surface relief wave is ignored in this analysis knowing that the surface relief wave would only tend to produce lower SEL values than the direct wave.

For each of the marine mammal groupings included in Table 2, specific filter shapes apply to each functional hearing group. To apply this weighting, the Fast Fourier Transform (FFT) was calculated for the time histories at each analysis distance. Each FFT was then filtered using the frequency weighted specified for each group. Filter factors were then determined for each distance by subtracting the filtered result from the unfiltered FFT data and determining the overall noise reduction in decibels. These filter factors were applied to the accumulated SEL determined for the entire blast event for each distance from the Pier.

The BAS of the Blast Plan will have an effect on the wave once a blast passes through it. In a research report by USACE in 1964, the performance of a BAS was examined in detail (USACE 1964). It has also been found that for an energy metric such as SEL, the reduction produced by the BAS was equal to or greater than the reduction of the peak pressure (USACE 1991; Rude 2002; Rude and Lee 2007; Rivey 2011). To estimate the reduction for SEL values due to the BAS installed in the Blast Plan (CALTRANS 2015), SEL was reduced by 80%. Effectively, this was done by reducing the SEL by 20 Log (0.20), or 14 dB. Delays below the mudline, which will be located below the BAS, were also reduced by 80% based on an assumption that the outside pier walls here (which will not be removed) and Bay mud sediments will provide a similar level of attenuation. These SEL values and those without the BAS were then compared to the appropriate criteria for each marine mammal group. Because the calculation of SEL is based on the peak pressure, these estimates for the direct wave component are expected to be conservative for the same reasons as described for the peak pressures.

Estimation of Positive Impulse

To estimate positive impulse values, the expression originally developed by Cole for open water was used (Cole 1948). This expression includes only contributions from the direct wave neglecting any contribution from the surface relief, bottom reflected, and bottom transmitted consistent with the assumptions used to estimate SEL. In this case, impulse is given by:

$$I = 2.18 \times W^{1/3} \times \left(\frac{W^{1/3}}{R} \right)^{1.05} \quad (7)$$

with the variables defined in Equation 4. The impulse can also equivalently be calculated from wave forms. Equation 5 produces impulse values in psi-msec which were converted to Pa-sec by multiplying by 6.9 for comparison to the marine mammal criteria.

Unlike P_{pk} and SEL, no reduction by the BAS is assumed for the impulse calculation. The area under the $P(t)$ curve under goes little change after passing the BAS. The peak pressure is reduced as noted previously, however, since the $P(t)$ expands in duration, the area change is minimal. This behavior is well documented in the literature (Cole 1948; USACE 1964; USACE 1991; Rickman 2000). As discussed above, this is not the case for SEL which is determined by the area under the $P^2(t)$ curve.

Estimated Takes of Marine Mammals

The estimated distances (Table 3) to the marine mammal criteria for peak pressure, SEL, and impulse are based on established relationships between charge weight and distance from the literature. The estimated distances were determined assuming unconfined open water blasts from the original Cole equations or the Cole equations modified by USACE. The assumption of open water neglects several effects that could produce lower levels than estimated. These include no shielding by the pier structure prior a specific blast, confining of the individual delays in the holes drilled into the pier structure, and longer distances to individual blasts than assumed by closest distance between the pier and the receptor point. For SEL, the assumption of open water blasts neglects the surface relief wave which at longer distances from the pier, would tend to reduce the SEL due to interference with the direct wave. Although the estimated levels and distances may be conservative, there is sufficient uncertainty in the blast event and its propagation such that further, less conservative adjustments would not be appropriate.

Estimated exposure numbers are subsequently calculated based on modeled ensonified areas and marine mammal density information. However, since many marine mammals are expected to occur in groups, the estimated exposure numbers are adjusted upward by a factor of 2 to provide estimated take numbers. In addition, although modeling shows that no California sea lion would be exposure to noise levels that would result in a take, its presence in the vicinity of SFOBB has been documented. Therefore, take of 2 of California sea lion is assessed. A summary of estimated takes and exposures of marine mammals that could result from CALTRANS' Pier E3 controlled implosion is provided in Table 6.

TABLE 6—SUMMARY OF THE ESTIMATED TAKES AND EXPOSURES (IN PARENTHESIS) OF MARINE MAMMALS TO THE PIER E3 IMPLOSION

Species	Level B take		Level A take	Mortality	Population	% take population
	Behavioral	TTS				
Pacific harbor seal	12 (6)	6 (3)	0 (0)	0 (0)	30.196	0.06
California sea lion	2 (0)	0 (0)	0 (0)	0 (0)	296,750	0.00
Northern elephant seal	2 (1)	0 (0)	0 (0)	0 (0)	124,000	0.00
Harbor porpoise	2 (1)	0 (0)	0 (0)	0 (0)	9,886	0.02

Analysis and Determinations

Negligible Impact

Negligible impact is ''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 Level B harassment 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 behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat.

To avoid repetition, this introductory discussion of our analyses applies to all the species listed in Table 5, given that the anticipated effects of CALTRANS' Pier E3 controlled implosion on marine mammals are expected to be relatively similar in nature. There is no information about the nature or severity of the impacts, or the size, status, or structure of any species or stock that would lead to a different analysis for this activity.

No injuries or mortalities are anticipated to occur as a result of CALTRANS' controlled implosion to demolish Pier E3, and none are authorized. The relatively low marine mammal density and small Level A exclusion zones make injury takes of marine mammals unlikely, based on take calculation described above. In addition, the Level A exclusion zones would be thoroughly monitored before the proposed implosion, and detonation activity would be postponed if an marine mammal is sighted within the exclusion.

The takes that are anticipated and authorized are expected to be limited to short-term Level B harassment (behavioral and TTS). Marine mammals (Pacific harbor seal, northern elephant seal, California sea lion, and harbor porpoise) present in the vicinity of the action area and taken by Level B harassment would most likely show overt brief disturbance (startle reaction) and avoidance of the area from the implosion noise. A few Pacific harbor seals could experience TTS if they occur within the Level B TTS ZOI. However, TTS is a temporary loss of hearing sensitivity when exposed to loud sound, and the hearing threshold is expected to recover completely within minutes to hours. In addition, even if an animal receives a TTS, the TTS would just be a one-time event from a brief impulse noise (about 5 seconds), making it unlikely that the TTS would evolve into PTS. Finally, there is no critical habitat and other biologically important areas in the vicinity of CALTRANS' proposed Pier E3 controlled implosion area (John Calambokidis *et al.* 2015).

The project also is not expected to have significant adverse effects on affected marine mammals' habitat, as analyzed in detail in the ''Anticipated Effects on Marine Mammal Habitat'' section. The project activities would not modify existing marine mammal habitat. The activities may kill some fish and cause other fish to leave the area temporarily, thus 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.

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 prescribed monitoring and mitigation measures, NMFS finds that the total marine mammal take from CALTRANS's Pier E3 demolition via controlled implosion will not adversely affect annual rates of recruitment or survival; accordingly we conclude the taking will have a negligible impact on the affected marine mammal species or stocks.

Small Numbers

The requested takes represent less than 0.06% of all populations or stocks potentially impacted (see Table 6 in this document). These take estimates represent the percentage of each species or stock that could be taken by Level B behavioral harassment and TTS (Level B harassment). The numbers of marine mammals estimated to be taken are small proportions of the total populations of the affected species or stocks. In addition, the mitigation and monitoring measures (described previously in this document) prescribed in the IHA are expected to reduce even further any potential disturbance 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 mitigation and monitoring measures, NMFS finds that small numbers of marine mammals will be taken relative to the populations of the affected species or stocks.

Impact on Availability of Affected Species for Taking for Subsistence Uses

There are no subsistence uses of marine mammals in the project area; and, thus, no subsistence uses impacted 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 (ESA)

NMFS has determined that issuance of the IHA will have no effect on listed marine mammals, as none are known to occur in the action area.

National Environmental Policy Act (NEPA)

NMFS prepared an Environmental Assessment (EA) and a Supplemental Environmental Assessment (SEA) for the take of marine mammals incidental to construction of the East Span of the SF–OBB and made Findings of No Significant Impact (FONSIs) on November 4, 2003 and August 5, 2009. Due to the modification of part of the demolition of the original SFOBB using controlled implosion and the associated mitigation and monitoring measures, NMFS prepared an SEA and analyzed the potential impacts to marine mammals that would result from the modification. A Finding of No Significant Impact (FONSI) was signed in September 2015. A copy of the EA and FONSI is available upon request (see **ADDRESSES**).

Authorization

NMFS has issued an IHA to CALTRANS for the potential harassment of small numbers of four marine mammal species incidental to the SFOBB Pier E3 demolition via controlled implosion in San Francisco Bay, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: September 18, 2015.

Donna S. Wieting,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. 2015–24230 Filed 9–23–15; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XE206

Western Pacific Fishery Management Council; Public Meeting

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

ACTION: Notice of a public meeting and hearing.

SUMMARY: The Western Pacific Fishery Management Council (Council) will hold a meeting of its Guam Mariana Archipelago Fishery Ecosystem Plan (FEP) Advisory Panel (AP) to discuss and make recommendations on fishery management issues in the Western Pacific Region.

DATES: The Guam Mariana Archipelago FEP AP will meet on Friday, October 9, 2015, between 6 p.m. and 7:30 p.m. All times listed are local island times. For specific times and agendas, see **SUPPLEMENTARY INFORMATION.**

ADDRESSES: The Guam Mariana Archipelago FEP AP will meet at the Guam Fishermen's Cooperative Association Lanai in Hagatna, Guam.

FOR FURTHER INFORMATION CONTACT: Kitty M. Simonds, Executive Director, Western Pacific Fishery Management Council; telephone: (808) 522–8220.

SUPPLEMENTARY INFORMATION: Public comment periods will be provided in the agenda. The order in which agenda items are addressed may change. The meetings will run as late as necessary to complete scheduled business.

Schedule and Agenda for the Guam Mariana Archipelago FEP AP Meeting

Friday, October 9, 2015, 6 p.m.–7:30 p.m.

1. ''Hafa Adai'' Welcome and Introductions
2. Review and Approval of the Agenda
3. Issues to be discussed at 164th Council Meeting
   - A. Upcoming Council Action Items
     - i. Specification of Territorial Bottomfish Annual Catch Limits (ACLs)
     - ii. 2016 Territorial Bigeye Tuna Catch Limit Specifications
     - iii. Council review of Mariana FEP and Proposed Changes
   - B. Mariana Archipelago FEP-Guam Community Activities
4. Mariana Archipelago FEP-Guam Issues
   - A. Report of the Subpanels
     - i. Island Fisheries Subpanel
     - ii. Pelagic Fisheries Subpanel
     - iii. Ecosystems and Habitat Subpanel
     - iv. Indigenous Fishing Rights Subpanel
   - B. Other Issues
5. Public Hearing
6. Discussion and Recommendations
7. ''At the end of the day'' Other Business

Special Accommodations

The meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, (808) 522–8220 (voice) or (808) 522–8226 (fax), at least 5 days prior to the meeting date.

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

Dated: September 21, 2015.

Tracey L. Thompson,

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

[FR Doc. 2015–24253 Filed 9–23–15; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XE209

New England Fishery Management Council; Public Meeting

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

ACTION: Notice; public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Scientific & Statistical Committee 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 meeting will be held Tuesday, October 13, 2015, beginning at 9 a.m. and Wednesday, October 14, 2015, beginning at 9 a.m.

ADDRESSES: The meeting will be held at the Providence Biltmore Hotel, 11 Dorrance Street, Providence, RI 02903; phone: (401) 421–0700; fax: (401) 455–3050.

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

Tuesday, October 13, 2015

The Committee will review information provided by the Council's Scallop PDT and recommend the overfishing levels (OFLs) and acceptable biological catches (ABC) for Atlantic sea scallops for fishing years 2016 and 2017.

The Committee will also review recent stock assessment information from the 2015 Groundfish Operational Assessments updates and information provided by the Council's Groundfish Plan Development Team (PDT) and recommend the overfishing levels (OFLs) and acceptable biological catches (ABCs) for all groundfish stocks (except for Georges Bank yellowtail flounder) managed under the Northeast Multispecies Fishery Management Plan for fishing years 2016–18.

Wednesday, October 14, 2015

The Committee will continue to review information on and develop