

UNITED STATES DISTRICT COURT
DISTRICT OF MAINE

DISTRICT 4 LODGE OF THE)
INTERNATIONAL ASSOCIATION)
OF MACHINISTS AND AEROSPACE)
WORKERS LOCAL LODGE 207,)
et al.,)

Plaintiffs,)

v.)

No. 1:21-cv-00275-LEW

GINA M RAIMONDO, in her official)
Capacity as Secretary of the United)
States Department of Commerce,)
et al.,)

Defendants)

**ORDER ON MOTION FOR TEMPORARY RESTRAINING ORDER
AND PRELIMINARY INJUNCTION**

In this action, Plaintiffs challenge a component of the Final Rule issued by the Department of Commerce, National Oceanic and Atmospheric Administration (“NOAA”) under the caption “Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Atlantic Coastal Fisheries Cooperative Management Act Provisions; American Lobster Fishery.” 50 C.F.R. Parts 229 and 697 (Sept. 17, 2021). Among other measures set forth under the Final Rule, the Secretary has authorized the partial closure of Lobster Management Area One Restrict

Area Offshore of Maine (“LMA 1” or “LMA 1 Restricted Area”)¹ on a recurring basis², between October and January (effective this year beginning October 18, 2021), which partial closure prohibits the use of gear that uses persistent buoy lines, also known as vertical buoy rope (“VBR”). In other words, the Secretary has effectively closed the LMA 1 restricted area to commercial lobster fishing by the vast majority of the permit holders who would fish for lobster in these waters.

According to the Final Rule, the justification for the closure is to reduce the incidence of right whale mortalities and serious injuries due to whale entanglement with VBR distributed throughout the LMA 1, although the prediction of right whales in these waters during the closure period relies on very low-percentage whale distribution models and prior area closures imposed by NOAA and its National Marine Fisheries Service (“NMFS”) through the Atlantic Large Whale Take Reduction Plan (“ALWTRP”) have relied on predictable whale aggregations in specific areas and seasons. Plaintiffs request a temporary restraining order or preliminary injunction setting aside the closure measure “unless and until NMFS issues a final rule that implements mitigation measures that are based on an evaluation of the effectiveness of existing regulations, spatial data on the location of trap/pot gear, updated right whale distribution surveys, aerial surveillance and acoustic monitoring in the LMA 1 Restricted Area, reasonable alternatives proposed as part

¹ Following the lead of the parties, this Order frequently references LMA 1 to mean the restricted area unless otherwise indicated.

² The “Framework” used by Defendants is an “adaptive” one, but the Department does not anticipate a “comprehensive evaluation” before 2025/26. Endangered Species Act Section 7 Consultation Biological Opinion (“BiOp”) at 7.

of the public comment process, and an analysis of potential triggering mechanisms to be used in connection with dynamic management of the LMA 1 Restricted Area.” Plaintiffs’ Motion at 27-28.

BACKGROUND

The North Atlantic right whale is one of the most endangered species in the world. Total population is estimated to be somewhere around 368 individuals. The species has been assigned a potential biological removal (“PBR”) level of 0.8, meaning that the removal of, on average, more than 0.8 individuals annually threatens the species’ ability to reach its optimal sustainable population level. Since 2019, ten mortality or serious injury events have been documented in U.S. and Canadian waters. Of all the large whales, only the right whale population consistently experiences takes in excess of its PBR on an annual basis.

The LMA 1 Restricted Area is a newly defined zone situated entirely within federal waters in the Gulf of Maine and marked out by the following coordinates:

43° 06’ N, -69° 36.77’ W	43° 44’ N, -68° 21.60’ W
42° 53.52’ N, -69° 32.16’ W	43° 32.68’N, -68° 17.27’ W

This area is roughly 967 square miles and is in what is known as the “offshore” zone. The LMA 1 Restricted Area comprises but a part of the entire LMA 1. The larger LMA 1 encompasses essentially the entire coastal Maine lobster fishery. Viewing that larger fishery as a whole, some 1600 license holders have the right to set as many as 800 traps. The regulatory idea that lies at the root of NMFS’s action in relation to the LMA 1 restricted zone is that the Maine fishery, given the number of lines it generates across the entire

fishery, should contribute to the right whale conservation effort by adopting a variety of measures, including a limited seasonal closure in the LMA 1 Restricted Area.

The Defendants in this action stand behind an Atlantic States Marine Fisheries Commission formed under the auspices of the NMFS's Greater Atlantic Regional Fisheries Office ("GARFO"). Because GARFO licenses commercial fisheries that can, in the absence of regulation, jeopardize the continued existence of endangered or threatened species (for purposes of this action the North Atlantic right whale³), GARFO and/or one of its parent agencies owe(s) a duty under Section 7 of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536(a)(2), to ensure that such fishing activity is conducted in a manner that is not likely to jeopardize the continued existence of any endangered species.⁴ Part of the process set in motion under this statutory regime involved a request for "formal intra-service section 7 consultation" meant to provide a biological opinion on how to address the ESA Section 7 challenge. Endangered Species Act Section 7 Consultation Biological Opinion (May 27, 2021) (NMFS) ("BiOp") at 7.⁵ The BiOp is focused on "evaluating the effects from fishing activities (i.e., entanglement/bycatch) by vessels with federal permits in federal waters only." *Id.* at 6.

³ The administrative process underlying this action addressed ESA-related concerns for a relatively long list of endangered or threatened species and a variety of different fisheries. *See* BiOp title page and §§ 4-5.

⁴ Habitat degradation is also a consideration under the ESA, but "[o]f all the gears used in the fisheries [addressed by the Final Rule], bottom trawl is the only gear type that has the potential to adversely affect bottom habitat in the action area." BiOp at 207. The Final Rule is also a function of NMFS's regulatory oversight of marine species under the Marine Mammal Protection Act, which Act is the primary impetus behind the ALWTRP. Final Rule at 1.

⁵ The BiOp is available on the docket at ECF 1-1.

According to NMFS, the reason for its request for consultation⁶ and issuance of a BiOp relates to “new information” received in 2017 indicating that “right whale abundance has been in decline since 2010.” *Id.* at 5. This information “may reveal effects from the fisheries analyzed in the [prior] Biological Opinions that may not have been previously considered.” *Id.* NMFS also states that certain “reinitiation triggers” in the prior Biological Opinions have been exceeded in recent years. *Id.*

With regard to the North Atlantic right whale, the BiOp ultimately concludes with a finding that “the nature and magnitude of the proposed [regulatory] action’s effects, including the implementation of the [North Atlantic Right Whale Conservation] Framework, is not likely to jeopardize [their] continued existence.” *Id.* 341. This finding, in turn, called for NMFS to issue an incidental take statement⁷ setting forth the anticipated level of take of the right whale and reasonable and prudent measures to avoid and minimize the take going forward.

NMFS’s consultation process involved, in part, “proposing [measures] as part of the Atlantic Large Whale Take Reduction Plan (“ALWTRP”) ... designed to modify, specifically, the American lobster and Jonah crag trap/pot fisheries.” *Id.* at 6. The BiOp incorporates NMFS’s North Atlantic Rights Whale Conservation Framework for Federal

⁶ The BiOp identifies the “action agency” as the National Marine Fisheries Service, Greater Atlantic Regional Fisheries Office, through its Sustainable Fisheries Division. The “consulting agency” is identified as the National Marine Fisheries Service, Greater Atlantic Regional Fisheries Office, through its Protected Resources Division.

⁷ NMFS predicts the take of 2.69 right whales annually (27 whales over 10 years) throughout the entire Atlantic region. BiOp App’x A, North Atlantic Right Whale Conservation Framework for Federal Fisheries in the Greater Atlantic Region, BiOp at 475 (PageID # 530). NMFS offers no predictive methodology for statistical attribution of any such take to LMA 1 during the fall and winter fishing season.

Fisheries in the Greater Atlantic Region (“Framework,” BiOp App’x. A), “to further reduce” mortalities and serious injuries to right whales. *Id.* at 7. NMFS describes its Framework as evidence of its “commitment to use its authorities to implement measures that are necessary for the recovery of right whales, while providing a phased approach and flexibility to the fishing industry.” *Id.* Like the ALWTRP, the Framework is informed not only by the ESA, but also by the Marine Mammal Protection Act, 16 U.S.C. § 1387. *See* BiOp at 7.

According to the BiOp, the Framework is an important initial consideration in NMFS’s phased and flexible approach to modifying fishing industry standards for protection of right whales.⁸ *Id.* In NMFS’s words: “If gear and operational measures cannot reach the targets of the Conservation Framework, NMFS has the authority to implement closures (partial/complete or seasonal) to reduce risk, if needed.” *Id.* (emphasis added). The Framework is meant to be “adaptive” to allow “for revisions as additional information becomes available or should any of the assumptions require revisions.” *Id.*

In its Final Rule, issued in September, 2021, NMFS amends the ALWTRP to implement what is effectively a closure of the LMA 1 restricted zone before implementing gear and operational measures that it waits to implement in May of 2022.⁹ Final Rule at 8 (ECF No. 1-2). The Final Rule suggests that NMFS’s closure of the LMA 1 restricted zone

⁸ The Framework has four phases and extends into 2030. BiOp at 8.

⁹ In its proposed rule, distributed in December, 2020, NMFS did not take a position on LMA 1 closure, but solicited public comment on the topic, suggesting three alternatives: no LMA 1 seasonal restricted area, implementation only following triggering events, and implementation of LMA 1. Proposed Rule, 85 Fed. Reg. 86878-01, 86882.

is part of its effort to spread the burdens of the ALWTRP across jurisdictions regardless of whale migratory patterns and based, in part, on the development that a Maine delegation to the planning team (comprised of representatives of the Maine Department of Marine Resources and the Maine Lobstermen’s Association) withdrew its support for a 50 percent line reduction measure inside LMA 1. *Id.* at 100.¹⁰

The gear and operational measures appear promising. These measures include “trawling up” (increasing the number of traps per trawl line, thereby reducing the number of VBR in the water column), the use of sinking ground line between the traps on the trawl, and the use of VBR with a “weak line” inserted along the length of the VBR so that a whale can break free of an entanglement.¹¹ BiOp at 9, 177; Final Rule at 13-15. These all appear to be reasonable gear modifications¹² that, importantly, the average license holders could

¹⁰ The Department of Marine Resources advocated line restrictions and data collection over closure. It’s perspective is available in FEIS Appendix 3.3.1.1.

¹¹ The BiOp speaks in terms of 1700 lb maximum breaking strength. BiOp at 225.

¹² Breaking line would likely ameliorate the negative consequences of an entanglement but not negate them. “Documented cases show that entangled animals may travel for extended periods of time and over long distances before freeing themselves, being disentangled by humans, or dying as a result of the entanglement (Angliss and DeMaster 1998).” BiOp at 209. *See also id.* at 213 (describing sublethal effects of entanglement).

There are generally three initial attachment points for gear to attach to large whales: (1) the gape of the mouth, (2) around the flippers, and (3) around the tail stock. Knots in the line hinder the ability of the line to pass through the baleen. Anchors on the gear or the weight of the gear itself offers resistance against which the whale may struggle and result in further entanglement of the fishing gear across the mouth and/or body of the whale. Conversely, the extra resistance could increase the effectiveness of weak links to assist in shedding gear from entangled whales. Weak links are breakable components of the gear that will part when subject to a certain tension load.

Id. at 209. Commenters on the proposed rule observed that weaker lines may not prove effective for entanglements involving juvenile whales. Final Rule at 18-19.

meet.¹³

NMFS states that lobster fishing activity in the offshore zone tends to be most active in the fall and winter months due to the biological cycle of the American lobster. BiOp at 16. NMFS thus recognizes that its closure of the LMA 1 restricted zone to VBR-systems is perfectly timed to ruin a fishing season, at least for the substantial lot of license holders who work these grounds. But is the closure timed to protect right whales? The ALWTRP has been around for several years and the regulations it has spawned address many concerns other than concerns associated with the use of VBR in lobster fisheries. It has, however, included closures in certain trap/pot fisheries. BiOp at 177. When it has done so, notably, the closures have been designed to “coincide with the presence of right whales in these areas” and closures can be extended in response to an ongoing presence of right whales in a closure area. *Id.* at 177-78.

Right whale migratory patterns are an important tool in deciding where and when a closure is called for. NMFS tells us that right whales have feeding grounds in the Northeast and calving grounds in the Southeast. *Id.* at 179. The illustrative aid provided to depict the “Northeast” feeding ground is considerably south of LMA 1. *Id.* at 180. NMFS also finds that the feeding grounds span New England waters into Canadian waters, BiOp at 186, with a case of a calf being born in the Gulf of Maine in 2009, “apparently.” *Id.* at 186-87.

¹³ Trawling up requirements place a greater demand on hauling equipment in lobster boats. The record does not provide adequate information to interpret how many traps per trawl might raise a serious impediment to the average lobster boat fishing in the LMA 1 Restricted Area. For a small subset of license holders, there may be other work arounds for the LMA 1 closure, including “ropeless” systems that brings a trawl line to the surface when needed, rather than having a static line persisting in the water, but ropeless systems are in a trial stage at this time. BiOp at 9, 225; Final Rule at 10, 110. NMFS says that “fishermen who wish to try ropeless fishing may apply for an EFP, and will be able to fish in the restricted areas to test the technology.” Final Rule at 109.

The BiOp provides the following summary of right whale migratory patterns:

Right whales predominantly occupy waters of the continental shelf, but are also known to make lengthy excursions into deep waters off the shelf (Baumgartner and Mate 2005, Davis et al. 2017, Hayes et al. 2020, Mate et al. 1997). Offshore of the Maine coast, the likelihood of a North Atlantic right whale being present increases with distance from shore (Roberts et al. 2016). Surveys have demonstrated the existence of several areas where North Atlantic right whales congregate seasonally, including areas in the action area such as 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; Massachusetts Bay; and the continental shelf south of New England (Brown et al. 2002, Cole et al. 2013, Hayes et al. 2020, Leiter et al. 2017).

In the late fall months (e.g., October), pregnant female right whales move south to their calving grounds off Georgia and Florida, while the majority of the population likely remains on the feeding grounds or disperses along the eastern seaboard. Recent research indicates our understanding of their movement patterns remains incomplete (Davis et al. 2017). A review of visual and passive acoustic monitoring data in the western North Atlantic demonstrated nearly continuous year-round presence across their entire habitat range (for at least some individuals), including in locations previously thought of as migratory corridors (e.g., waters off New Jersey and Virginia). This suggests that not all of the population undergoes a consistent annual migration (Bort et al. 2015, Cole et al. 2013, Davis et al. 2017, Hayes et al. 2020, Leiter et al. 2017, Morano et al. 2012, Whitt et al. 2013).

New England waters are important feeding habitats for right whales, where they feed primarily on copepods (Hayes et al. 2020). The distribution of right whales is linked to the distribution of their principal zooplankton prey, calanoid copepods (Baumgartner and Mate 2005, NMFS 2005, Waring et al. 2012, Winn et al. 1986). Right whale calls have been detected by autonomous passive acoustic sensors deployed between 2005 and 2010 at three sites (Massachusetts Bay, Stellwagen Bank, and Jeffreys Ledge) in the southern Gulf of Maine (Morano et al. 2012, Mussoline et al. 2012). Comparisons between detections from passive acoustic recorders and observations from aerial surveys in Cape Cod Bay between 2001 and 2005 demonstrated that aerial surveys found whales on approximately two-thirds of the days during which acoustic monitoring detected whales (Clark et al. 2010).

Recent changes in right whale distribution (Kraus et al. 2016) are driven by warming deep waters in the Gulf of Maine (Record et al. 2019). Prior to 2010, right whale movements followed the seasonal occurrence of the late stage,

lipid-rich copepod *C. finmarchicus* from the western Gulf of Maine in winter and spring to the eastern Gulf of Maine and Scotian Shelf in the summer and autumn (Beardsley et al. 1996, Mayo and Marx 1990, Murison and Gaskin 1989, Pendleton et al. 2009, Pendleton et al. 2012). Warming in the Gulf of Maine has resulted in changes in the seasonal abundance of late-stage *C. finmarchicus*, with record high abundances in the western Gulf of Maine in spring and significantly lower abundances in the eastern Gulf of Maine in late summer and fall (Record et al. 2019). One of the consequences of this has been a shift of right whales out of habitats such as the Great South Channel and the Bay of Fundy, and into areas such as the Gulf of St. Lawrence in the summer and south of New England and Long Island in the fall and winter (NMFS NEFSC, unpublished data).

BiOp at 187.

Of the various locales associated with right whale migrations, the one¹⁴ that conceivably overlaps with LMA 1 during the relevant closure period is the “western Gulf of Maine,” where the NMFS predicts the presence of right whales during the LMA 1 closure period *in spring* based on seasonal abundance of late-stage *C. finmarchicus*, while also supposing that the warming¹⁵ of the Gulf of Maine has shifted right whales “south of New England and Long Island in the fall and winter.” *Id.* (citing unpublished data); *see also id.* at 198. The right whale’s migratory shift away from Maine in the fall and winter raises the flag that the timing of the LMA 1 closure (October through January) is not calibrated to the co-occurrence of whales and fishing effort, let alone the sort of whale aggregations that have informed other closures implemented by NMFS.

According to the BiOp’s discussion of the “Effects of the Proposed Action,” BiOp § 7, the “highest abundance of ... whale populations occur from March through November

¹⁴ The LMA 1 is not at the continental shelf and the Stellwagen Bank and Jeffreys Ledge areas are considerably south and west of LMA 1. Georges Bank is nowhere near LMA 1 either.

¹⁵ NMFS finds that water temperature has “a large influence on geographic ranges of cetacean species.” BiOp at 197.

in New England waters,” *id.* at 210, but this metric is linked to the combined presence of multiple species. As to right whales specifically, NMFS finds:

For many years, right whales aggregated seasonally in seven known areas: the coastal waters of the southeastern United States; 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. Since 2010, fewer whales have been using some of these established habitats such as the Great South Channel and the Bay of Fundy (Davis et al. 2017, Hayes 2019). Meanwhile, the use of Cape Cod and Massachusetts Bay seems to have increased and a large portion of the right whale population is now using an area south of Nantucket and Martha’s Vineyard from winter through early spring (Davis et al. 2017, Hayes 2019). This area is also used in other seasons (Oleson et al. 2020). In addition, right whales also use more of the U.S. eastern seaboard than previously believed and can be present in the Mid-Atlantic year round (Davis et al. 2017, Hodge et al. 2015, Salisbury et al. 2016, Whitt et al. 2013). The frequency with which right whales occur in offshore waters in the southeastern United States remains unclear (Hayes 2019).

BiOp at 210. These migratory paths do not overlap with the LMA 1 Restricted Area. Elsewhere, when discussing right whale jeopardy, NMFS expresses the understanding that right whales tend to forage in waters in and around the Gulf of Maine in spring and summer. *Id.* at 324. The LMA 1 Restricted Area, however, is to be implemented in fall and winter. These findings related to right whale migratory patterns do not appear to justify the closure of LMA 1 because they do not demonstrate an “overlap of the fisheries and large whales in space and time.” *Id.* at 209.

NMFS concludes that of all the fishery gear under its purview, VBR has a statistically high rate of incidence when mortalities or serious injuries occur to whales and that the greatest relative risk to whales in U.S. waters exists in offshore waters. *Id.* at 223. NMFS predicts that U.S. federal fisheries (all such fisheries using all gear types, not just lobster boats fishing in LMA 1 using VBR) will entangle roughly 15 percent of the right

whale population annually, a grim figure indeed. *Id.* Given these findings, Phase 1 of the ALWTRP focuses on right whale entanglement with “trap/pot gear used in lobster and Jonah crab fisheries.” *Id.* at 224. However, for LMA 1 to be implicated, there should be good reason to believe that VBR in the LMA 1 Restricted Area will overlap with right whale migratory patterns. NMFS provides no alternative rationale when it comes to justifying closures: “Closures protect areas of predictable seasonal aggregations of right whales.” *Id.* at 225.

The available record of known large whale entanglement and vessel strike cases between 2010 and 2019 offers little to support outright closure of LMA 1. Though it collects many entanglements and vessel strikes involving right whales, there is no known incident within LMA 1. The report identifies a known vessel strike 26 nautical miles south west of Grand Manan Island in the summer of 2010; a vessel strike 83 nautical miles east of Portland in November of 2011; an entanglement 22.2 nautical miles east of Cape Elizabeth in September 2015; and an entanglement 6.5 nautical miles south east of Seguin Island in September 2016. FEIS appendix 2.2.¹⁶ Of note, the November incident comes within the temporal parameters of the LMA 1 closure, but not its geographic boundaries. It also occurred ten years ago and Gulf of Maine warming trends make this a significant temporal factor.

¹⁶ “Final Environmental Impact Statement, Regulatory Impact Review, and Final Regulatory Flexibility Analysis for Amended the Atlantic Large Whale Take Reduction Plan” (NOAA, June 2021), portions available in the record at ECF 1-4 and 25-1.

To support the partial closure of LMA 1, the Final Rule relies on NMFS's Final Environmental Impact Statement ("FEIS"), a so-called Decision Support Tool version 3, and a habitat model described as "Duke Model Version 11" to supply the co-occurrence data (*i.e.*, co-occurrence of right whales and VBR in LMA 1 and elsewhere). Final Rule at 101-103. According to NMFS, the closure period covers a season in which the LMA 1 is a "hotspot" of right whale activity, *id.* at 101, though NMFS also allows that, "[l]ike some commentators, given the lack of systematic surveys in this area, we were concerned that whales might not be using this area after they shifted distributions in the last decade." *Id.*¹⁷

The FEIS is a product of the National Environmental Policy Act, which requires federal agency to observe certain procedures (but not outcomes) associated with federal activity, including federal permitting of private activity. The FEIS was produced to satisfy NEPA procedural requirements arising from NMFS's amendment of the Atlantic Large Whale Take Reduction Plan. The FEIS "evaluates the biological, economic, and social impacts" of NMFS's rule-making activity and describes the amendments of the Plan as encompassing measures "designed to reduce the risk of serious injury and death caused by entanglement in commercial fishing gear to a rate below each species potential biological removal level." FEIS at 1. The stated objective of the alternative regulatory measures evaluated in the FEIS is to reduce the incidence of entanglements rapidly by focusing on the reduction or removal of lobster trap/pot VBR from migratory routes at a level sufficient

¹⁷ NMFS notes that gear densities are high in LMA 1 and that it focused on LMA 1 rather than LMA 3 (which has higher whale occurrence rates) because of LMA 3's lower line densities and the fact that LMA 3 licensed vessels are adopting trawling up and weak line measures. However, such measures might have been imposed immediately in LMA 1 instead of the immediate closure to fishing with VBR in the LMA 1 Restricted Area. *Id.* at 103.

to reduce the risk of entanglement by 60 percent.¹⁸ FEIS at 4-5.

According to the FEIS, assumptions about the risk reduction impact of the Final Rule are based primarily on a Decision Support Tool (“DST”) designed by the Northeast Fisheries Science Center. NMFS has turned to the DST to substantiate a closure in LMA 1 because NMFS understands that trends over the last decade have made the Gulf of Maine less appealing to right whales. Moreover, NMFS lacks any traditional evidence that Maine fishing gear has been responsible for the take of a right whale in recent years.¹⁹ As described by NMFS in the FEIS:

The DST aids in the comparison of spatial management measures by calculating right whale entanglement risk based on three components: the density of lines in the water, the distribution of whales, and a gear threat model to determine the relative threat of gear based on gear strength.

FEIS at 10 (citing FEIS App’x 3.1). Thus, while NMFS purports to base seasonal closures on a co-occurrence of whales and line densities, the question is whether the DST

¹⁸ NMFS states at once that its FEIS focuses on achieving a 60 percent reduction, but also that an 80 percent reduction remains “the upper target.” FEIS at 5.

¹⁹ NMFS states that for many entanglement incidents resulting in the death or serious injury of a whale the responsible line either is no longer found on the whale or else bears no mark of its origin. Among the other measures being set in place by responsible regulatory agencies are line marking requirements. For example:

The Maine DMR has regulations, effective September 1, 2020, to require gear marking throughout Maine waters using purple as their unique color (DMR Chapter 75.02). Alternative 2 (Preferred) of this FEIS has a modified gear marking scheme Additional 1 foot green marks would be required in federal waters under Alternative 2 (Preferred) for better discernment between fishing in U.S. and Canada and between state and federal waters and waters of the Northeast Trap/Pot Management Area.

FEIS at 96. For some reason NMFS’s marking requirements will not take effect until May 2022. NMFS does not consider this to be an impediment to immediate imposition of a closure in the LMA 1 Restricted Area because it relies on yet another mathematical approach to assume that a set percentage (*i.e.*, 50%) of entanglement incidents of which it becomes aware are the result of an incident somewhere in U.S. waters. BiOp at 217. NMFS does not explain how it attributes these incidents further to the Gulf of Maine, which NMFS scientists do not consider to be the preferred habitat of the right whale.

substantiates the LMA 1 closure based on meaningful migratory data or simply uses math in a manner that makes a reduction in line density appear statistically meaningful even in the absence of passing whales.

Although the DST is said, by Defendants, to utilize the “best available information about whale distribution,” FEIS at 38, the information itself is controversial and not exactly transparent:

The model applies the best available information about whale distribution, buoy line numbers, and configurations of trap/pot gear. There is uncertainty in each data set. Because whales exhibit regular behavioral patterns (e.g., migration, feeding), NMFS seeks to use distribution data to reduce impacts on the fishing industry but maximize the effectiveness of the Plan by designating requirements tailored by region and season. . . . Development of these spatial and temporal requirements involves the consideration of the inherent uncertainties and the integration of complex technical input from NMFS researchers and other experts. The models underwent Center of Independent Expert peer review in 2019 that acknowledged uncertainty and suggested modifications that were made when possible. Although much of the data is subject to uncertainty, the information employed in developing the spatial and temporal elements of the alternatives under consideration is the best information currently available.

FEIS at 38. The “consideration of inherent uncertainties and the integration of complex technical input” presumably entail some concrete inputs; according to NMFS, its models use data from the 2010-2018 period after the change in whale distribution was noted, and the data “predict[] this area as a relative hotspot.” *Id.* at 40. The issue is whether the Court can evaluate any such data before the Agency implements the LMA 1 Restricted Area.

Section 5.2.1 of the FEIS is entitled Use of NMFS Decision Support Tool. NMFS states that the Tool is “built upon the co-occurrence model” with supporting documentation “of the DST” in FEIS Appendix 3.1 with “outputs” in FEIS Appendix 3.2. Before turning to these sources, the NMFS offers some more practical observations associated with co-

occurrence and distance from shore in its discussion of the trawling up measure. NMFS agrees with the Maine Department of Marine Resources that the risk of co-occurrence increases with distance and that 12 nautical miles supplies some kind of fulcrum point that would counsel in favor of stronger measures. FEIS at 187-88, 192. However, in terms of analysis offered in the FEIS, NMFS presents only aggregate data drawn from all risk reduction measures. *See, e.g., id.* at 199. It offers details when it has them, providing a graphic of sighting data near Nantucket, for example, *id.* at 203, Figure 5.4, but offers no detail when it comes to LMA 1, only the prediction that right whales “may return [to the area in] pre-2010 frequency ... in the future,” while Maine fishermen “may ... be fishing farther offshore than in previous years” due to greater lobster abundance in these waters. *Id.* at 202. *See also id.* at 204 (“current analysis uses a newer version of the right whale density model (version 11) that captures more recent data after the regime shift that started in 2010 (Pace et al. 2017)”). I turn then to the DST to see whether a basis for fishery closure will reveal itself.

The Decision Support Tool Model Documentation (FEIS Appendix 3.1) begins with reassuring language:

Within the model, risk posed to the NARW population is calculated as the product of: (1) the density of vertical lines associated with lobster traps at a given location, (2) the threat vertical lines pose to NARW given the configuration of the lobster gear, relative to alternative gear configurations, and (3) the density of NARW expected at the given location. The DST is partially based on the Vertical Line Model (VLM) and Co-Occurrence Model developed by Integrated Economics (IEc, indecon.com) for NOAA since 2004. Many of the inputs to the DST that are comparable to the VLM have a similar format and maintain some backwards-compatibility for the purpose of datasharing.

FEIS appendices p.97. Software paraments include a “whale abundance/distribution model

... by location and month” and calculate risk values as “the product of gear threat per endline, density of endlines, and density of whales.” *Id.* p.99, §§ 2.19, 2.20. One input includes a “whaleinputmodel,” a data file with a whale density model. *Id.* § 3.1.4. The program will produce a pure cooccurrence model if queried, and allows NMFS to “examine spatiotemporal distributions.” *Id.* §§ 3.1.10, 3.1.11.

Line density models are another “primary input,” but the density input for certain areas relies on “methods for different states and the offshore fishery” rather than data, given the lack of a reporting requirement or other reliable metric. *Id.* § 4.1. The method for Maine in the disputed region appears to rely permits and landings data. *Id.* § 4.1.1.1.²⁰

Whale density models draw heavily on an external report NMFS uses to establish default right whale behavioral patterns over the last decade, citing Jason J. Roberts et al., Habitat-based cetacean density models for the United States Atlantic and Gulf of Mexico, 6 SCI. REP. 22615 (2016). *See* FEIS §§ 4.8, 6.0.

²⁰ Landings data is a controversial metric of effort/line density because landings predominantly reflect increased lobster abundance and abundance metrics are much higher closer to shore. Maine DMR Letter to NOAA re Technical Memo (Oct. 2018), FEIS Appendix 3.3.1.2 (“It is unclear why NOAA would choose to use state landings records for only one state that is dominated by inshore effort if seeking to accurately characterize offshore effort, as the majority of the truly “offshore” effort (in Area 3) is from permit holders in other states.”); Letter to NOAA re Scoping (Sept. 2021), FEIS Appendix 3.3.1.4. In the Final Rule, NMFS estimates that between 60 and 120 vessels fish for lobster in the LMA 1 restricted zone. Final Rule at 107. In practice, actual line densities are difficult to measure because they depend on fisherman effort and NMFS has not imposed reporting requirements as a condition of licensure for these offshore federal waters and because there are many latent licences out there. “Many fishermen who hold licenses do not actively fish at all, and many active fishermen do not fish all of the traps that have been allocated to them.” FEIS at 190. Because LMA 1 has lobster in high abundance, some significant effort is anticipated in this entire zone. *Id.* at 191. Yet it is understood that effort falls off with increased distance from shore. Ultimately, NMFS concedes that modeling this factor is difficult and “complicates the assessment of entanglement risk in this region.” FEIS at 193. NMFS says it would benefit from “improved trip reporting and ... vessel monitoring.” *Id.* The record includes evidence that the entire offshore zone beyond 12 nautical miles yielded roughly 9% of Maine landings in 2016. Actual vessel numbers and gear configurations in this zone are not clearly understood. Maine Department of Marine Resources Letter to NOAA re Scoping, FEIS Appendix 3.3.1.4.

The spatial and temporal distribution of whales within the model domain is adapted from the Right Whale Habitat model from Roberts et al. (2016). In short, the model uses whale sighting data from a variety of sources, matched with co-located oceanographic and habitat variables to predict whale density at any given location. The right whale habitat model has been updated over the past two years with a number of improvements. Recognizing that whale distributions and seasonal migration patterns have changed over the past decade, the whale distribution model now has three options for inputs, one model for the past decade (2010 – 2018), a second for the previous decade (2003 – 2009) and a third for the entire time series. We used the recent decade model as the default for all current analysis and used the other two models for some explorations of uncertainty in whale distributions and robustness of management plans. The updated models are estimated at a 5km pixel resolution and was translated to the domain of the DST by overlaying the points within the DST domain on the whale habitat model raster and extracting the overlapping values. Thus, whale density values for individual pixels in the DST will have the same value as some neighboring pixels if they fell into the same cell in the original whale model. (Figure 4.8.a and b).

Id.

Trap density defaults for the DST were, for the LMA 1 Restricted Area, between 10 and 100 traps per square mile between October and January. Figure 4.1.3.a. But line density defaults reflect between 1 and 10 lines per square mile. Figure 4.1.3.b. A “whale habitat score” graphic reflects another input, and November, December and January show some uptick in the default inputs, moving the needle from close to 0.00 to beneath 0.04. This graphic is confusing given that it purports to provide a habitat score but also bears the legend “Monthly whale density.” Figure 4.8.a. A logarithmic scale version of the map is, predictably, more attention grabbing. Figure 4.8.b.

From all that appears in the record, the DST provides a predictive model that ties together uncommon sightings and a habitat model that supports the idea that the Gulf of Maine can supply an adequate feeding ground for individual right whales during the fall

and winter months.²¹ In other words, it appears to be an accepted understanding that there is potential that one or more right whales may transit the LMA 1 Restricted Area during the closure period.

DISCUSSION

The standard for issuing a temporary restraining order is “the same as for a preliminary injunction.” *Bourgoin v. Sebelius*, 928 F. Supp. 2d 258, 267 (D. Me. 2013). (citations and quotation marks omitted). The record before the Court must demonstrate (A) the plaintiff is likely to succeed on the merits of a claim for which injunctive relief is available; (B) a significant risk of irreparable harm if the injunction is withheld; (C) a favorable balance of the equities; and (D) the requested relief will not harm the public interest. *NuVasive, Inc. v. Day*, 954 F.3d 439, 443 (1st Cir. 2020). As the party seeking injunctive relief – and as the only party presently before the Court – the plaintiff necessarily bears the burden of establishing that the factors favor the award of a temporary restraining order. *Nat’l Org. for Marriage v. Daluz*, 654 F.3d 115, 117, 119-20 (1st Cir. 2011).

A. Reviewability

To start, I find that Plaintiffs’ APA claim is reviewable. Defendants correctly note that the issue of whether courts may entertain “so-called ‘pure APA’ action[s] without reference to another substantive statute” remains unsettled in this circuit. *Union of Concerned Scientists v. Wheeler*, 954 F.3d 11, 21–22 (1st Cir. 2020). But this is not a “pure

²¹ The Maine Department of Marine Resources characterized the predictive model as follows: “This leaves much of the Gulf of Maine relying on the modeled distribution of right whales, which uses climatological data when there is little effort and low sightings.” Letter to NOAA re Decision Support Tool (April 2019), FEIS Appendix 3.3.1.3.

APA” claim—as I understand it, Plaintiffs argue that the Final Rule is an arbitrary and capricious application of the MMPA. Specifically, Plaintiffs claim that the challenged closure “does not further the purposes of the . . . MMPA” inasmuch as the closure is unrelated to the statutory mandate under the MMPA to protect whales and other marine mammals. Pls.’ Mot. 7, 8 (ECF 10). That Plaintiffs failed specifically to recite the MMPA’s statutory directive when stating their claim in the complaint, *see* Complaint at 34, does not warrant the dismissal of this case.

B. Likelihood of Success

Failure to demonstrate a likelihood of success on the merits ordinarily precludes the award a preliminary injunction. *New Comm. Wireless Servs., Inc. v. SprintCom, Inc.*, 287 F.3d 1, 9 (1st Cir. 2002). On the other hand, “[a]s a matter of equitable discretion, a preliminary injunction does not follow as a matter of course from a plaintiff’s showing of a likelihood of success on the merits.” *Benisek v. Lamone*, — U.S. —, 138 S. Ct. 1942, 1943–44 (2018) (per curiam). In the final analysis, “trial courts have wide discretion in making judgments regarding the appropriateness of such relief.” *Francisco Sánchez v. Esso Standard Oil Co.*, 572 F.3d 1, 14 (1st Cir. 2009)). While the “plaintiffs must show ‘more than mere possibility’ of success” for me to grant a preliminary injunction, *Sindicato Puertorriqueno de Trabajadores v. Fortuno*, 699 F.3d 1, 10 (1st Cir. 2012) (quoting *Respect Maine PAC v. McKee*, 622 F.3d 13, 15 (1st Cir. 2010)), I “need not predict the eventual outcome on the merits with absolute assurance,” *Ross-Simons of Warwick, Inc. v. Baccarat, Inc.*, 102 F.3d 12, 16 (1st Cir. 1996).

A district court is empowered to reverse agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). *See also Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 41 (1983). “Review under the arbitrary and capricious standard is narrow and this Court may not substitute its judgment for that of the agency, even if it disagrees with the agency’s conclusions.” *River St. Donuts, LLC v. Napolitano*, 558 F.3d 111, 114 (1st Cir. 2009). Under this “deferential” standard, the “agency’s actions are presumed to be valid,” *Puerto Rico Tel. Co. v. Telecommunications Regul. Bd. of Puerto Rico*, 665 F.3d 309, 319 (1st Cir. 2011), and “the court must uphold a rule if the agency has ‘examine[d] the relevant [considerations] and articulate[d] a satisfactory explanation for its action[,] including a rational connection between the facts found and the choice made.’” *F.E.R.C. v. Elec. Power Supply Ass’n*, 577 U.S. 260, 292 (2016), *as revised* (Jan. 28, 2016) (alteration in original) (quoting *State Farm*, 463 U.S. at 43). Specifically, the court looks to whether the agency relied on factors Congress did not intend for it to consider, failed to consider an important aspect of the problem, or offered an explanation at odds with the evidence before the agency or so implausible it could not be considered to reflect a reasonable view or the application of specialized agency expertise. *Marasco & Nesselbush, LLP v. Collins*, 6 F.4th 150, 172 (1st Cir. 2021).

In this case, Defendants (hereinafter “the Agency”) imposed what is, in practical effect, a substantial closure of the Maine lobster fishery, based on what appears to be a markedly thin statistical modeling methodology. Making matters more troublesome, this approach departs dramatically from the Agency’s past practice of justifying closures based

on known and predictable whale aggregations demonstrated by concrete evidence. Instead, the Agency relied on a “right whale density model” to identify areas of “higher than average risk” where a targeted closure could achieve the greatest gain in risk reduction without overly disrupting the fishery—certainly a laudable goal. FEIS at 80. This model attempts to account for where whales are most likely to be present based on whale sightings and “environmental covariates believed to correlate with cetacean distributions,” including the shape of the seabed, oceanographic factors such as currents, and known distributions of prey species. Jason J. Roberts *et al.*, *Habitat-based cetacean density models for the United States Atlantic and Gulf of Mexico*, 6 SCI. REP. 22615 (2016). The model suggests that because the LMA 1 Restricted Area is both a viable habitat for right whales during the winter months and an abundant winter lobster fishery that will receive considerable fishing effort, it is a suitable location for a targeted closure.

While an agency may, in its discretion, choose which pieces of evidence to rely on and which to discount, *see Upper Blackstone Water Pollution Abatement Dist. v. U.S. E.P.A.*, 690 F.3d 9, 26 (1st Cir. 2012), it may not, in so doing, ignore an important aspect of the problem that it is trying to solve, *see id.* at 20. Here, the agency’s devotion to whale distribution modeling ignored what I deem to be a core aspect of the problem of right whale entanglements: whether right whales *actually* aggregate in the LMA 1 Restricted Area. While Plaintiffs’ bold contention that there are no right whales in the Gulf of Maine²² may yet be contradicted by scientific and anecdotal evidence, the record presented thus far does

²² It appears generally accepted that the Gulf of Maine is not the preferred habitat of right whales and that there is a dearth of evidence to conclude that there has been a taking of a right whale there in recent years.

not indicate that right whales actually congregate in or pass through the LMA 1 Restricted Area with nearly enough frequency to render it a “hotspot” for whale and bouy line co-occurrence, contrary to the Agency’s characterization.

I recognize that it is not my place to second guess the Agency’s informed decision to rely on this data, nor am I hubristic enough to do so. And were these distributional models the only evidence available to the Agency in its effort to preserve a quickly disappearing endangered species, the Agency’s reliance on such models may, out of necessity, be deemed reasonable and its failure to consider the actual presence of right whale aggregations excusable. But that is not the case—the agency does have the ability to generate evidence more reliable than abstract mathematical models to prove or disprove right whale occurrence rates in the Gulf of Maine in the winter season, most notably in the form of passive acoustic recorders that have *this year* been placed along the Maine coast and could have been placed earlier during the multi-year review process that resulted in the Final Rule. FEIS at 81. Presumably the Agency recognizes the practical utility of such evidence when it comes to imposing a closure based on buoy line and whale co-occurrence and will soon have such evidence to evaluate, which will either substantiate or contradict its modeling effort.²³

I do not conclude today that the Agency, in fact, acted arbitrarily or capriciously in crafting the Final Rule. I find only that the Plaintiffs have shown a strong enough likelihood of success and that their challenge to the proposed seasonal closure of the LMA 1

²³ During the oral argument on Plaintiffs’ Motion, the Agency read from a website that purports to collect acoustical data collected by a non-governmental entity, but the Agency did not place any such data in the record to substantiate the Agency’s decision-making process.

Restricted Area warrants more fulsome consideration than the preliminary injunction window allows for.

C. Irreparable Injury

The MMPA directs the Agency to consider the “economics of the [lobster] fishery” and the impact that a regulation would have on the fishery, 16 U.S.C. § 1387(f)(2), and the record shows that the Agency acknowledged the economic impact of the seasonal closure, *see* Atlantic Large Whale Take Reduction Plan Regulations, 86 Fed. Reg. 51,970, 51,971 (Sept. 17, 2021) (to be codified at 50 C.F.R. § 229.32). But the Agency characterized the impact in a broad-brush fashion, suggesting the impact represents “1.5 to 3 percent of the ... landings value to the fisheries.” *Id.* This assessment does not appear to take into consideration the local impact of a closure of the LMA 1 Restricted Area, but instead uses another mathematical maneuver to reduce local impacts to a marginal level. Standing alone, this omission is not likely to prove determinative, but it contributes weight to Plaintiffs’ side of the balance beam for purposes of my effort to decide whether the status quo should remain in place during the pendency of this action.

Plaintiffs’ concerns about the economic effects of the regulation on themselves and other Maine fishermen, *see* Pls.’ Mot. at 21–22, 23–24, are sufficiently likely and substantial to support preliminary injunctive relief. While loss of income “infrequently rise[s] to the level of irreparable harm required for a preliminary injunction,” *Nwaubani v. Grossman*, 806 F.3d 677, 681 n.8 (1st Cir. 2015) (citing *Sampson v. Murray*, 415 U.S. 61, 91–92 (1974)), it may nonetheless suffice in a case where the government is a defendant and the plaintiff can show a “significant” economic harm. *California Ass’n of Priv.*

Postsecondary Sch. v. DeVos, 344 F. Supp. 3d 158, 170 (D.D.C. 2018) (quoting *Gulf Oil Corp. v. Dep't of Energy*, 514 F. Supp. 1019, 1026 (D.D.C. 1981)). The figures that the Plaintiffs offer for the amount of income they anticipate losing may be overstated—there is no fisherman whose state license limits fishing in the LMA 1 Restricted Area, though I acknowledge the logistical difficulties and resulting chaos when a fleet of lobstermen are dislocated from their traditional fishing grounds and find themselves seeking shelter from the storm in other claimed grounds. Plaintiffs have offered sufficient evidence to support particularized and irreparable injury. Even the Agency acknowledges that the closure will be costly for lobstermen, who are expected to bear an “annual cost of compliance” of “\$9.8–19.2 million, representing 1.5 to 3 percent of the 2019 landings value of the fisheries.” Atlantic Large Whale Take Reduction Plan Regulations, 86 Fed. Reg. 51,970, 51,971. Given that the cost of the closure also will be born by two communities—Vinalhaven and Stonington—it is hard to cast such losses as anything other than “significant.”

Regardless, I find that Plaintiffs have met their burden of showing that irreparable harm is likely to the extent that the closure would permit competitors to “infiltrate the LMA 1 Restricted Area” and thereby permanently deprive them and other established fishermen of their claims to “generational . . . fishing grounds.” Pls.’ Mot. at 23. Were this fear simply that competitors would “deplete the area of lobsters,” Defs.’ Opp’n. 11 (ECF 25), it would amount to no more than an economic harm; but as I read it, Plaintiffs in fact fear a much more permanent loss of their existing fishing grounds due to regulatory standards that effectively cede those interests to larger economic forces with which they compete.

Specifically, they fear that they will return to the LMA 1 Restricted Area in the spring to find either the area overrun with ropeless traps set by competitors or an ecosystem ruined by ground fishing.

The Agency does not deny the possibility of these outcomes, acknowledging in a response to a comment to the proposed rule that fishermen who have not previously fished the LMA 1 Restricted Area but who “obtain EFPs to fish without buoy lines” will be able to fish the area during the closure. 86 Fed. Reg. 51,970, 51,995. Indeed, the Agency appears to suggest that possible turnover of longstanding gear claims would be a benefit of the proposed rule inasmuch as it would incentivize a shift to ropeless fishing and “open[] up fishing habitat that mobile gear vessels have not been able to access due to the presence of lobster trawls.” *Id.*

Accordingly, I find that the Plaintiffs have met their burden of showing that they will be irreparably harmed in the absence of preliminary injunctive relief.

D. Balance of Equities and Public Interest

Although the “balance of [equities] and the public interest [generally] tips heavily in favor of protected species” by virtue of the fact that Congress has chosen to pass legislation protecting them, *Strahan v. Coxe*, 127 F.3d 155, 160 (1st Cir. 1997) (quoting *National Wildlife Fed’n v. Burlington Northern R.R.*, 23 F.3d 1508, 1510 (9th Cir.1994)), given the foregoing discussion of the merits-related and injury-related factors, I find that the balance of the equities favors preliminary injunctive relief that stalls implementation of the LMA 1 Restricted Area.

Without trivializing the precarity or significance of the right whale as a species, I find that the certain economic harms that would result from allowing this closure to go into effect outweigh the uncertain and unknown benefits of closing some of the richest fishing ground in Maine for three months based on a prediction that it might be a hotspot for right whale entanglement. The balance of the equities favors preserving the *status quo pendente lite* until the predictive modeling methodology can be critically unpacked and corroborated or contradicted with more traditional signs and data demonstrating an appreciable co-occurrence of right whales and buoy lines in the restricted area. Likewise, while the public interest in this case cuts both ways—pitting a culturally and economically valuable fishery against the preservation of an equally iconic endangered species—it strikes me that there is an overriding public interest in insisting on orderly and epistemically sound rulemaking that members of the public have reason to believe is grounded in reality.

“The purpose of a preliminary injunction is to preserve the status quo, freezing an existing situation so as to permit the trial court, upon full adjudication of the case’s merits, more effectively to remedy discerned wrongs.” *CMM Cable Rep., Inc. v. Ocean Coast Properties, Inc.*, 48 F.3d 618, 620 (1st Cir. 1995). Just so here. Faced with the imminent closure of a large swath of fishing ground—set, after multiple years of discussion and rulemaking, to go into effect in a matter of weeks—I hold that the Agency may not enforce closure of the disputed area pending further order of the Court for the reasons herein stated.

CONCLUSION

Plaintiffs' Emergency Motion for a Temporary Restraining Order and Preliminary Injunction (ECF 10) is **GRANTED IN PART**. Implementation of the LMA 1 Restricted Area is enjoined pending a ruling on the merits of this action. Plaintiffs' request that I immediately impose specific conditions on any future implementation of the closure to vertical buoy line in LMA 1 Restricted Area is **DENIED**.

SO ORDERED.

Dated this 16th day of October, 2021.

/s/ Lance E. Walker
UNITED STATES DISTRICT JUDGE