

# APPENDIX A

# United States Court of Appeals For the First Circuit

No. 23-1501

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NANTUCKET RESIDENTS AGAINST TURBINES; VALLORIE OLIVER,

Plaintiffs, Appellants,

v.

U.S. BUREAU OF OCEAN ENERGY MANAGEMENT; NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION; NATIONAL MARINE FISHERIES SERVICE;  
DEBRA HAALAND, Secretary of the Interior; GINA M. RAIMONDO,  
Secretary of Commerce; VINEYARD WIND 1, LLC,

Defendants, Appellees.

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APPEAL FROM THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

[Hon. Indira Talwani, U.S. District Judge]

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Before

Kayatta, Lynch, and Gelpí,  
Circuit Judges.

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Thomas Stavola, Jr. for appellants.

Thekla Hansen-Young, with whom Todd Kim, Assistant Attorney General, Environment & Natural Resources Division, U.S. Department of Justice, Luther L. Hajek, Perry Rosen, Mark Arthur Brown, Angela Ellis, Kevin W. McArdle, Pedro Melendez-Arreaga, Assistant Solicitor, U.S. Department of the Interior, Stephen R. Vorkoper, Lea Tyhach, Attorney Advisor, Office of General Counsel, National Oceanic and Atmospheric Administration, and Scott Farley were on brief, for the federal appellees.

Peter R. Steenland, with whom David T. Buente, Jr., Peter C. Whitfield, James R. Wedeking, Kathleen Mueller, Brooklyn Hildebrandt, Jack W. Pirozzolo, and Sidley Austin LLP were on brief, for appellee Vineyard Wind 1, LLC.

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April 24, 2024

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**KAYATTA, Circuit Judge.** After consulting with the National Marine Fisheries Service ("NMFS"), the U.S. Bureau of Ocean Energy Management ("BOEM") approved the construction of Vineyard Wind, a wind power project off the coast of Massachusetts. A group of Nantucket residents -- organized as Nantucket Residents Against Turbines ("Residents") -- allege that the federal agencies violated the Endangered Species Act by concluding that the project's construction likely would not jeopardize the critically endangered North Atlantic right whale. The Residents further allege that BOEM violated the National Environmental Policy Act by relying on NMFS's flawed analysis.

We disagree. NMFS and BOEM followed the law in analyzing the right whale's current status and environmental baseline, the likely effects of the Vineyard Wind project on the right whale, and the efficacy of measures to mitigate those effects. Moreover, the agencies' analyses rationally support their conclusion that Vineyard Wind will not likely jeopardize the continued existence of the right whale. We therefore affirm the judgment of the district court. Our reasoning follows.

**I.**

**A.**

This case lies at the intersection of four federal environmental statutes: (1) the Outer Continental Shelf Lands Act ("OCSLA"), (2) the Endangered Species Act ("ESA"), (3) the Marine

Mammal Protection Act ("MMPA"), and (4) the National Environmental Policy Act ("NEPA").

**1.**

OCSLA authorizes the Secretary of the Interior to issue leases for offshore wind development. 43 U.S.C. § 1337(p)(1)(C). The Secretary has delegated her leasing authority to BOEM. 30 C.F.R. § 585.100. Before issuing an offshore lease, BOEM must "coordinate and consult with relevant [f]ederal agencies," and it must comply with the consultation requirements of other federal environmental statutes, such as the ESA. Id. § 585.203.

Once BOEM issues an offshore lease, its work is not done. The agency must also approve a site assessment plan and a construction and operations plan. See id. §§ 585.605, 585.620. The construction and operations plan must describe "all planned facilities that [the lessee] will construct and use," as well as "all proposed activities including [the lessee's] proposed construction activities, commercial operations, and conceptual decommissioning plans." Id. § 585.620(a)-(b). No construction may begin until BOEM approves the construction and operations plan. Id. § 585.620(c).

**2.**

Under section 7 of the ESA, a federal agency must consult with NMFS whenever an agency action "may affect" an endangered marine species like the right whale. 50 C.F.R. § 402.14(a); 16

U.S.C. § 1536(a)(2); see also 35 Fed. Reg. 18319, 18320 (Dec. 2, 1970) (declaring the right whale an endangered species). A section 7 consultation ends with NMFS issuing a biological opinion. 16 U.S.C. § 1536(b)(3)(A). In that opinion, NMFS must determine if the agency action is "likely to jeopardize the continued existence" of the endangered species. 50 C.F.R. § 402.14(h)(iv). NMFS must reach this determination after reviewing the "best scientific and commercial data available." Id. § 402.14(g)(8).

Section 9 of the ESA generally prohibits the "take" of an endangered species. 16 U.S.C. § 1538(a)(1)(B). To "take" an endangered species means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect," the species, or "to attempt . . . any such conduct." Id. § 1532(19). Relevant here are so-called "incidental takes." These are takes that "result from, but are not the purpose of," an agency's or applicant's otherwise lawful activity. 50 C.F.R. § 402.02.

Some incidental takes are allowed. 16 U.S.C. § 1536(b)(4), (o). As relevant here, incidental take approval requires NMFS to issue an "incidental take statement" along with the biological opinion. 50 C.F.R. § 402.14(i); 16 U.S.C. § 1536(b)(4). That statement must, among other things, (1) describe the extent of the anticipated incidental take; (2) outline reasonable measures to reduce and monitor such take;

and (3) incorporate measures to comply with section 101(a)(5) of the MMPA. See 50 C.F.R. § 402.14(i)(1).

**3.**

When the animal to be taken is an endangered marine mammal, NMFS may not "issue an incidental take statement . . . under the ESA until the take has been authorized under the MMPA. The incidental take statement must incorporate any mitigation measures required under the MMPA." Ctr. for Bio. Diversity v. Bernhardt, 982 F.3d 723, 742 (9th Cir. 2020) (internal citations omitted).

Like the ESA, the MMPA regulates actions that "harass" endangered species. See 16 U.S.C. §§ 1362(13), 1372(a). Under the MMPA, there are two types of harassment. Level A harassment is "any act of pursuit, torment, or annoyance" that has the "potential to injure a marine mammal or marine mammal stock in the wild." Id. § 1362(18)(A)(i), (18)(C). Level B harassment is less serious, and encompasses "any act of pursuit, torment, or annoyance" that has the "potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns." Id. § 1362(18)(A)(ii), (18)(D). NMFS may authorize the incidental harassment of a protected marine mammal if it makes

certain factual findings.<sup>1</sup> See 16 U.S.C. §§ 1373, 1374. This permission is called an incidental harassment authorization.

4.

Finally, there is NEPA. When a major federal agency action will have significant environmental effects, NEPA requires that the acting agency draft an environmental impact statement. See 42 U.S.C. § 4332(C); 40 C.F.R. § 1502.3. That statement must analyze, among other things, the "reasonably foreseeable environmental effects" of the proposed action, the "reasonable range of [technically and economically feasible] alternatives" to the proposed action, and reasonable measures to mitigate the environmental effects of the proposed action. 42 U.S.C. § 4332(C); see also Dubois v. U.S. Dep't of Agric., 102 F.3d 1273, 1286 (1st Cir. 1996). When considering the effects of a proposed agency action on an endangered species, the environmental impact statement may rely on, or incorporate the findings of, a biological opinion. See City of Tacoma v. FERC, 460 F.3d 53, 75-76 (D.C. Cir. 2006).

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<sup>1</sup> The necessary findings will depend on the endangered marine mammal. See 16 U.S.C. § 1373(a) (requiring the Secretary of the Interior to prescribe regulations governing take of "each species of marine mammal as he deems necessary and appropriate"); id. § 1374(b)(1) (mandating that any permit for taking an endangered marine mammal comply with any applicable regulation promulgated under section 1373).



NEPA is a procedural statute. It "does not mandate particular results, but simply prescribes the necessary process" for evaluating an agency action's environmental effects. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989). If an environmental impact statement sufficiently analyzes the likely environmental effects of a proposed agency action, the agency can still proceed on the grounds that "other values outweigh the environmental costs." Id.

**B.**

In 2014, BOEM made a small portion of the Massachusetts Wind Energy Area -- a section of the Outer Continental Shelf -- available for lease. See 79 Fed. Reg. 34771 (June 18, 2014). One year later, the agency leased a plot measuring 675 square kilometers to Vineyard Wind 1, LLC.

In 2017, Vineyard Wind submitted a construction and operations plan, proposing to build an offshore wind project in the northern portion of the lease area (the "wind development area"). The wind development area is located approximately fourteen miles southeast of Martha's Vineyard, and it will host turbines capable of generating approximately 800 megawatts of clean wind energy. That is enough energy to power 400,000 homes.

The federal agencies then began the environmental review process. In 2018, BOEM requested consultation with NMFS pursuant to section 7 of the ESA. Consultation began in April 2019. NMFS

issued its first biological opinion in September 2020, finding that the Vineyard Wind project would likely not jeopardize the continued existence of the right whale. The opinion also outlined mitigation measures to reduce the project's effects on the right whale. After new science became available, NMFS reinitiated consultation, eventually issuing an updated biological opinion in October 2021. The updated opinion also found that the project would likely not jeopardize the right whale's continued existence. Both the 2020 and 2021 versions of the biological opinion included incidental take statements. Those statements both concluded that, once Vineyard Wind adopted appropriate mitigation measures, the maximum anticipated take from project construction was Level B harassment -- caused by installation noise -- of twenty right whales.

BOEM issued its final environmental impact statement in March 2021. The environmental impact statement included its own analysis of how the proposed project would affect right whales and other marine mammals. It also included an appendix of mitigation measures.

In June 2021, relying on BOEM'S final environmental impact statement, NMFS published notice of its decision to issue an incidental harassment authorization for Level B harassment of up to twenty right whales. The Residents do not challenge the

incidental harassment authorization, which is the subject of a separate appeal before this court.

One month later, in July 2021, BOEM formally approved the Vineyard Wind construction and operations plan. Because NMFS's updated biological opinion was still pending at the time, BOEM's approval was subject to any new conditions or mitigation measures later identified in the updated biological opinion. In the meantime, BOEM's approval notice imposed the mitigation measures discussed in the environmental impact statement and the 2020 biological opinion. Several of those measures are relevant here:

- **Seasonal restrictions:** Vineyard Wind may not conduct any pile driving between January 1 and April 30. Right whales are more likely to be present in the lease area during this time of year.
- **Noise attenuation:** Vineyard Wind must install technology that reduces the distance that pile driving noise can travel underwater.
- **Soft start requirements:** Vineyard Wind must precede pile driving with "three strikes from the impact hammer at reduced energy, followed by a 1-minute waiting period." This process must take place three times before pile driving, so whales have time to leave the area.

- **Clearance and shutdown zones:** Vineyard Wind must determine that no whales are within the clearance zone before pile driving may begin, and it must immediately suspend pile driving if a whale enters the shutdown zone. The precise size of the clearance zone depends on several factors, such as time of year and type of foundation being installed. The radius of the shutdown zone is 3.2 kilometers for all foundation types.
- **Protected species observers:** Vineyard Wind must employ trained observers to watch for whales in the clearance and shutdown zones.
- **Passive acoustic monitoring:** Vineyard Wind must install monitoring technology to detect whale noise within the clearance and shutdown zones.
- **Vessel speed limits:** Project vessels must travel at ten or fewer knots while going to, from, or within the wind development area. Vessels carrying crew members may go faster, but they must use species observers and acoustic monitoring to watch for whales. If the crew vessels detect a whale, all vessels must obey the ten-knot speed limit for the rest of the day.

BOEM also imposed various post-construction mitigation measures. Among other things, Vineyard Wind must clean up the installation sites, monitor the health of the seabed and local plankton populations, monitor operational noise for at least three years, and share survey data with both indigenous tribes and the federal government.

In January 2022, after approving construction of Vineyard Wind, BOEM expressly adopted the findings of the updated October 2021 biological opinion. Given the similarity between the 2020 and 2021 versions of the biological opinion, BOEM concluded that "no further action [was] required in order for Vineyard Wind to proceed with construction and operation of the [wind project]."

**C.**

In August 2021, the Residents challenged BOEM's approval of Vineyard Wind in the District of Massachusetts. The Residents alleged that NMFS had violated the ESA by issuing a deficient biological opinion about Vineyard Wind's effects on the right whale. They further alleged that BOEM violated NEPA by failing to take the requisite "hard look" at Vineyard Wind's environmental impacts, and by relying on the allegedly defective updated biological opinion. The district court granted summary judgment to the federal agencies on all claims. The Residents appealed.

In their main brief on appeal, the Residents focus exclusively on alleged errors in NMFS's updated biological

opinion. They challenge BOEM's environmental impact statement only to the extent it relied on that opinion. We train our review accordingly, treating as waived any other independent challenges to the environmental impact statement. See Rife v. One W. Bank, F.S.B., 873 F.3d 17, 19 (1st Cir. 2017) (explaining that arguments not raised or properly developed in the opening brief are waived). Thus, we construe the Residents as arguing on appeal that (1) NMFS violated the ESA by issuing a flawed biological opinion,<sup>2</sup> and (2) BOEM violated NEPA by relying on NMFS's ostensibly flawed biological opinion.

## II.

We review the district court's grant of summary judgment de novo. Dubois, 102 F.3d at 1283. Summary judgment is appropriate if there is "no genuine issue as to any material fact and . . . the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c).

We review biological opinions under § 706 of the Administrative Procedure Act.<sup>3</sup> See Pac. Coast Fed. of Fishermen's Ass'ns v. U.S. Bureau of Reclamation, 426 F.3d 1082, 1090 (9th Cir. 2005); Strahan v. Linnon, No. 97-1787, 1998 WL 1085817, at \*2

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<sup>2</sup> For the remainder of this opinion, the phrase "biological opinion" will refer to NMFS's updated 2021 biological opinion, unless otherwise specified.

<sup>3</sup> The same goes for environmental impact statements. See Dubois, 102 F.3d at 1284.

(1st Cir. July 16, 1998) (per curiam) (unpublished). As a result, we have a "narrow role to play." Dist. 4 Lodge of the Int'l Ass'n of Machinists & Aerospace Workers Loc. Lodge 207 v. Raimondo, 18 F.4th 38, 44 (1st Cir. 2021). We may set aside "an otherwise proper agency action if [the action] is arbitrary and capricious or . . . not based on substantial evidence." Id. (citing 5 U.S.C. § 706(2)(A), (E)). This standard of review is deferential, especially when the agency action involves "technical or scientific matters within the agency's area of expertise." Citizen's Awareness Net., Inc. v. U.S. Nuclear Reg. Comm'n, 59 F.3d 284, 290 (1st Cir. 1995). To survive judicial review, the agency need only show that it has "considered the relevant factors and articulated a rational connection between the facts found and the choice made." Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc., 462 U.S. 87, 105 (1983); see also Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

Meanwhile, when reviewing a lead agency's reliance on a consulting agency's biological opinion, we must ask whether the reliance itself was arbitrary and capricious. See City of Tacoma, 460 F.3d at 75. Reliance can be arbitrary and capricious if the underlying biological opinion was deficient, or if the agency blindly adopted the biological opinion without conducting its own independent investigation. Id. at 75-76.

**III.**

The Residents' critiques of the biological opinion upon which BOEM's environmental impact statement relied fall into three buckets. First, the Residents allege that the biological opinion failed to properly analyze the current status and environmental baseline of the right whale. Second, they allege that the biological opinion ignored the effects of the Vineyard Wind project on right whales, while relying on flawed measures to mitigate those effects. Third, they allege that the biological opinion ignored the project's additive effects on the right whale's long-term recovery prospects.

We address each contention in turn.

**A.**

A consulting agency's biological opinion must "[e]valuate the current status and environmental baseline" of the affected endangered or threatened species. 50 C.F.R. § 402.14(g)(2). The phrase "environmental baseline" refers to the "condition of the listed species . . . without the consequences . . . caused by the proposed action." Id. § 402.02. NMFS must root this evaluation in the best available commercial and scientific data. Id. § 402.14(g)(8).

The Residents claim that the biological opinion ignored the best available data about the right whale's current status and



environmental baseline. They give three examples to support this argument. None of them is persuasive.

1.

The Residents argue that the biological opinion ignored a recent study -- the Quintana-Rizzo study -- that highlighted the growing importance of southern New England waters for right whale survival. Specifically, the Residents point to Quintana-Rizzo's findings that right whales are "becoming more reliant" on southern New England waters, and that certain spots in southern New England waters are "hotspot[s]" for whales to feed and socialize.

The record belies this challenge to the biological opinion. The opinion expressly acknowledged the growing importance of southern New England waters for right whales. For instance, the opinion noted that, as global temperatures have ticked up, "the location of feeding grounds has shifted, with . . . more [right whales] being observed in Cape Cod Bay . . . and south of Nantucket." The biological opinion also expressly cited Quintana-Rizzo for the proposition that waters off Rhode Island and Massachusetts "could be a feeding location for whales that stay in the mid-Atlantic and north during the winter-spring months and a stopover site for whales migrating to and from calving grounds." Finally, the biological opinion again cited Quintana-Rizzo to note that right whales "have been increasingly sighted" in waters off the coast of Massachusetts. Thus, NMFS

repeatedly acknowledged that right whales are increasingly present in southern New England waters.<sup>4</sup>

Furthermore, the biological opinion cited Quintana-Rizzo to note that certain "'hotspots' of higher use" had emerged in southern New England waters. But NMFS also noted Quintana-Rizzo's finding that whales have only used hotspots located in the project area during the spring, when pile driving is banned. So, nothing in Quintana-Rizzo's hotspot analysis rendered unreasonable the agency's conclusion that Vineyard Wind likely did not imperil the long-term survival of the right whale by interfering with "hotspots" in southern New England.

**2.**

The Residents next point to a chart in Quintana-Rizzo that illustrates a high rate of right whale sightings in the Massachusetts and Rhode Island Wind Energy Areas during August 2019. Broadly, Quintana-Rizzo looked at aerial survey data collected between 2011-2015 and 2017-2019. And in most surveyed years, sighting rates were highest between January and April, when pile driving for the Vineyard Wind project is banned. But in August 2019, there was a spike in sighting rates. According to

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<sup>4</sup> The Residents also suggest, in passing, that NMFS ignored another study -- Hayes 2021 -- that emphasized the importance of southern New England for the right whale. Because we find that the biological opinion expressly considered that phenomenon, we need not analyze Hayes 2021 individually.

the Residents, NMFS ignored the implication of this spike -- that right whales are increasingly present during a month (August) when pile driving is allowed. Thus, on the Residents' view, NMFS inadequately analyzed the current status and environmental baseline of the right whale.<sup>5</sup>

We disagree. In the biological opinion, NMFS concluded that the "best available information regarding marine mammal densities in the project area is provided by habitat-based density models" produced by a laboratory at Duke University. According to those models, right whales were most likely to be in the project area between January and April, with minimal presence in August. The agency then concluded that Quintana-Rizzo -- even though it relied on aerial surveys rather than habitat modeling -- was consistent with the habitat-based models. Indeed, Quintana-Rizzo found consistently high sighting rates during the January-April period, with a solitary outlier in August 2019. Thus, it was hardly unreasonable for NMFS to conclude that January-April was still the most popular timeframe for right whales in the project area.

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<sup>5</sup> The Residents also make this point to argue against the efficacy of seasonal restrictions as a mitigation measure. Our analysis here refutes that argument as well. We discuss the Residents' other challenges to Vineyard Wind's mitigation measures later in this opinion.

At bottom, the Residents are basically arguing that NMFS should have weighed Quintana-Rizzo's August 2019 finding more heavily than it did. But courts must "exercise great deference when [evaluating] claims about competing bodies of scientific research." See Nat'l Ass'n of Mfrs. v. EPA, 750 F.3d 921, 924 (D.C. Cir. 2014). NMFS concluded that habitat-based density models were the best available science on right whale distribution patterns. The Residents have not shown that this conclusion -- which itself "deserv[es] deference" -- was unreasonable. See Miccosukee Tribe of Indians of Fla. v. United States, 566 F.3d 1257, 1265 (11th Cir. 2009) (citing Marsh v. Or. Nat. Res. Council, 490 U.S. 360, 377-78 (1989)). NMFS then concluded that Quintana-Rizzo was consistent with the habitat-based density models. And based on our review of Quintana-Rizzo, we cannot say that this conclusion "jumped the rails of reasonableness." Nat'l Ass'n of Mfrs., 750 F.3d at 924. Accordingly, the agency's decisionmaking survives review.

**3.**

The Residents also argue that NMFS ignored data from two other studies -- Pettis 2021 and Hayes 2021. Both studies are annually updated assessments of right whale population and mortality trends. The Residents claim that NMFS ignored Pettis 2021's finding that whale deaths are outnumbering whale births, while dismissing Hayes 2021's finding that right whales have low

resilience to human-induced mortality. The Residents are mistaken once again.

Citing an earlier version of Pettis 2021 (i.e., Pettis 2020), the biological opinion clearly acknowledged that "numbers of births are well below the number needed to compensate for expected mortalities." And the opinion cited Pettis 2021 for the proposition that whale births are less frequent because they now occur (on average) every 7.6 years, which is an increase from historic calving intervals of 3-5.8 years. Thus, NMFS acknowledged the very finding in Pettis 2021 that the Residents claim went unacknowledged: that right whales face long-term population decline.

The Residents' claims about Hayes 2021 fare no better. While the biological opinion cites extensively to Hayes 2021, the Residents complain that the agency did not cite the study for the proposition that the right whale has a potential biological removal of 0.8,<sup>6</sup> and is therefore susceptible to human-induced mortality. However, the biological opinion plainly acknowledges that the right whale's "resilience to future perturbations is expected to be very low." Elsewhere, the biological opinion also describes

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<sup>6</sup> Potential biological removal means the "maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population." 16 U.S.C. § 1362(20).

the right whale's population size as "small enough for the death of any individual to have measurable effects."

So, the biological opinion plainly discussed the unique vulnerability of the right whale population to human-induced mortality. Even if the agency did not explicitly cite Hayes 2021 to support that proposition, this does not render the biological opinion's findings arbitrary and capricious. What matters is that the agency recognized and acknowledged the phenomenon -- low resilience to the human-caused death of just one whale -- that Hayes 2021 identified.<sup>7</sup>

**B.**

The Residents next take aim at the biological opinion's analysis of Vineyard Wind's effects on right whales, and its related conclusion that certain measures could mitigate those effects. The Residents' arguments address four of Vineyard Wind's potential effects on right whales: (1) construction noise; (2) operational noise; (3) line entanglement; and (4) vessel strikes. We address each in turn.

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<sup>7</sup> To the extent the Residents are arguing that NMFS had to cite Hayes 2021's precise finding that right whales had a potential biological removal of 0.8, that argument is waived. The district court found that the Residents had not provided adequate notice of this argument in their notice of intent to sue, and the Residents do not challenge that holding on appeal. Nantucket Residents Against Turbines v. U.S. Bureau of Ocean Energy Mgmt., 675 F. Supp. 3d 28, 54-55 (D. Mass. 2023).

1.

The Residents argue that the biological opinion improperly analyzed the impact of construction noise (i.e., pile driving) on right whales. Basically, they argue that pile driving is guaranteed to cause Level A harassment, even though the biological opinion found that such harassment was "extremely unlikely."

The Residents' argument proceeds in three parts. First, they assert that a whale is subject to Level A harassment from construction noise when it is within 7.25 kilometers of the construction site. Second, they note that the shutdown zone -- that is, the zone in which pile driving must cease if a right whale is spotted -- only extends 3.2 kilometers from the site. The Residents suggest this zone is too small, because a whale can linger in the noisy zone (and thereby suffer Level A harassment) without triggering a shutdown. Third, the Residents claim that the measures to detect a whale in either the shutdown zone or the broader noisy zone are only marginally effective. So, the Residents argue, Level A harassment of at least one whale is effectively guaranteed, despite the biological opinion's contrary finding.

Each link in the Residents' logical chain is flawed.

First, the Residents' foundational premise is wrong. Level A harassment does not automatically occur when a whale is

within 7.25 kilometers of pile driving. The Residents fundamentally misread the relevant section of the biological opinion. As the government correctly notes in its brief, the "7.25-kilometer area corresponds to the area where Level A harassment . . . would result after cumulative exposure during a 24-hour period in which [a jacket foundation was] installed,"<sup>8</sup> and where the only minimization measure was 6-dB sound attenuation. (Emphasis added). In other words, a whale within 7.25 kilometers of jacket foundation pile driving could only experience Level A harassment if it remained in that zone throughout the installation process, and if Vineyard Wind only used one minimization measure. Under those same conditions, immediate Level A harassment would only occur during jacket foundation installation if a right whale got within four meters of the pile driver. The Residents never assert that this is likely to happen.

Second, the Residents' challenge to the size of the 3.2-kilometer shutdown zone is moot to the extent it applies to jacket foundation installation. An appeal is moot if the reviewing court "cannot affect the matter in issue or cannot grant effectual relief." In re Cont. Mortg. Invs., 578 F.2d 872, 877 (1st Cir.

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<sup>8</sup> As the government's brief explains, Vineyard Wind uses pile driving to install two types of foundation. Monopile foundations are for wind turbine generators, and they require "a single pile driven into the ground." Jacket foundations are for support infrastructure and electrical service platforms. They require "three or four smaller piles driven into the ground."



1978). Here, Vineyard Wind has completed all jacket foundation pile driving. There is no indication that it will resume. So, even if NMFS violated the ESA by relying on a 3.2-kilometer shutdown zone to mitigate noise-related take from jacket foundation installation (an issue we expressly do not decide), we can no longer grant any injunctive relief that would remedy that violation. See Ogunquit Vill. Corp. v. Davis, 553 F.2d 243, 245-47 (1st Cir. 1977) (finding that the court was "unable to fashion a [generally applicable] remedy" for NEPA violations once the challenged project had been completed, and further stating that the responsibility for crafting such a remedy lay with Congress).

The Residents retort that NMFS's alleged violation of the ESA falls under the mootness exception for claims "capable of repetition, yet evading review." But this exception applies only when: "(1) the challenged action was in its duration too short to be fully litigated prior to its cessation or expiration, and (2) there [is] a reasonable expectation that the same complaining party [will] be subjected to the same action again." Weinstein v. Bradford, 423 U.S. 147, 149 (1975) (per curiam). There is no reasonable expectation that Vineyard Wind will install jacket foundations at the same location again. Accordingly, the exception does not apply, and the Residents' challenge to the 3.2-kilometer

exclusion zone -- as it pertains to jacket foundation installation -- is moot.<sup>9</sup>

Because the jacket foundations are complete, the only remaining pile driving involves monopile foundations. So, could the Residents simply apply their "shutdown zone is too small" argument to monopile foundation installation? The answer is no. According to the biological opinion, the cumulative Level A harassment threshold for monopile foundation installation (assuming 6-dB noise attenuation) is just under 3.2 kilometers. In other words, the standard 3.2-kilometer shutdown zone completely covers the area in which a right whale could be subject to cumulative Level A harassment from monopile foundation installation. So, if a right whale is detected in the zone affected by monopile foundation installation noise, a shutdown is mandatory.

Therefore, the Residents' only remaining argument is that NMFS's proposed mitigation measures cannot reliably detect a whale within the 3.2-kilometer shutdown zone around monopile

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<sup>9</sup> The Residents also assert that their claims fall under a mootness exception for issues of "great public import." But they cite only California state case law to support the existence of such an exception. The Residents do not identify -- nor could we find -- any controlling federal case that has recognized a "public importance" exception to the mootness doctrine. And this makes sense. Federal courts may only decide live "Cases" or "Controversies." See U.S. Const. art. III, § 2. Where no actual controversy exists, a federal court may not offer an advisory opinion. Mangual v. Rotger-Sabat, 317 F.3d 45, 60 (1st Cir. 2003).

installation. And that brings us to the third faulty link in the Residents' logic. The Residents cite no record data for the proposition that NMFS's proposed mitigation measures -- soft start procedures, protected species observers, and passive acoustic monitoring -- are ineffective at deterring a whale from, or detecting a whale within, the 3.2-kilometer shutdown zone.

The biological opinion found that soft start procedures -- which require Vineyard Wind to precede pile driving with quieter strikes that give right whales time to swim away -- were "expected to reduce [the] effects" of pile driving noise on right whales. The Residents retort that the biological opinion found no evidence that soft start procedures were effective. But once more, the Residents misapprehend the biological opinion's plain language. NMFS expressly stated that soft start procedures would "likely . . . reduce the duration of exposure to noise that could result in Level A or Level B harassment." The agency then stated that it could not precisely quantify the effect of soft start procedures on right whale take. So, the agency opted for a conservative approach, and did not "modify the estimated take numbers to account for any benefit provided by the soft start." Read in context, then, the biological opinion did not reflect a lack of confidence in soft start procedures. Instead, it reflected NMFS's cautious approach to calculating incidental take.

The biological opinion also found that acoustic monitoring and protected species observers, deployed in concert, are "highly effective." In response, the Residents' brief cites data from Natural Resources Defense Council v. Pritzker, 62 F. Supp. 3d 969 (N.D. Cal. 2014).<sup>10</sup> That case reviewed an NMFS rule approving the United States Navy's use of low frequency sonar during peacetime training and testing operations. Pritzker, 62 F. Supp. 3d at 979. Among other things, the challenged final rule concluded that passive acoustic monitoring had a "25 percent detection probability" with respect to marine mammals, while visual monitoring by protected species observers had a "nine percent detection probability." Id. at 996 (quoting 77 Fed. Reg. 50290, 50307 (Aug. 20, 2012)). Thus, the Residents argue, NMFS's proposed mitigation measures are at best 34 percent effective (25 percent plus 9 percent), which is purportedly too low to justify NMFS's confidence that construction noise is highly unlikely to cause Level A harassment to right whales.

We leave aside the broader question of whether a 34 percent detection probability is indeed too low to avoid Level A harassment. We also leave aside the fact that Pritzker is a decade-old, vacated district court decision involving an entirely

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<sup>10</sup> The district court's decision in Pritzker was later reversed and remanded by the Ninth Circuit. See Nat. Res. Def. Council, Inc. v. Pritzker, 828 F.3d 1125, 1142 (9th Cir. 2016).

different project. The Residents' argument fails for a more fundamental reason: The Residents never brought the Pritzker data to the agencies' attention. As the government notes, the Residents never flagged the Pritzker data in their comment letters or notice of intent to sue. And the Residents do not contend otherwise. Accordingly, we cannot consider the Pritzker data for the first time on review.<sup>11</sup> See, e.g., Camp v. Pitts, 411 U.S. 138, 142 (1973) (per curiam) (noting that in a case applying the Administrative Procedure Act, "the focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court"); United States v. L.A. Trucker Truck Lines, Inc., 344 U.S. 33, 37 (1952) (describing the "general rule" that "courts should not topple over administrative decisions unless the administrative body . . . has erred against objection made at the time appropriate under its practice").

In sum, the Residents cannot show that NMFS's conclusion that operational noise from Vineyard Wind was unlikely to subject any right whale to Level A harassment was arbitrary and capricious. Accordingly, their challenge under the ESA must fail.

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<sup>11</sup> The Residents also cite Native Village of Chickaloon v. NMFS, 947 F. Supp. 2d 1031 (D. Alaska 2013) to argue that passive acoustic monitoring is ineffective. We reject this argument for the same reason we reject the Residents' reliance on Pritzker.

2.

The Residents next argue that NMFS irrationally dismissed a study (Stober 2021) that analyzed the effects of wind turbine operational noise on right whales.

The Residents entirely ignore the biological opinion's extensive analysis of Stober 2021. After detailing the study's methodology, NMFS gave four reasons for limiting its reliance on the study. First, the study itself acknowledged "unresolved uncertainty in [its] methods." Second, the study's estimates of operational noise for the turbines that Vineyard Wind would use were "just a prediction and . . . not based on an in situ evaluation of underwater noise of a 10 MW direct-drive turbine."<sup>12</sup> Third, Stober 2021 did not consider contextual factors that could alter how turbine noise moved through water, such as "water depth, sediment type, [and] wind speed." Fourth, Stober 2021 itself suggested that turbine operational noise "may not be detectable above ambient noise," undermining the argument that operational noise would harass nearby marine mammals.

Given these limitations, the biological opinion instead relied on operational noise measurements from a wind farm off Block Island. The agency's determination that these measurements were

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<sup>12</sup> Contrary to the Residents' assertions, NMFS did not dismiss Stober 2021 on the grounds that it only analyzed older gearbox turbines. The agency expressly acknowledged that the study evaluated the "direct-drive turbines" deployed by Vineyard Wind.

the best available science commands deference. See Miccosukee Tribe, 566 F.3d at 1265. And the Residents scarcely engage with the agency's stated rationale for relying on the Block Island data rather than Stober 2021. Accordingly, we will not substitute our judgment for that of the expert agency. See Nat'l Ass'n of Mfrs., 750 F.3d at 924.

**3.**

The Residents next argue that the biological opinion ignored two phenomena that heighten the risk of right whales dying from entanglement in fishing lines.

First, the Residents claim that the biological opinion ignored the entanglement risk from lines that Vineyard Wind will install to perform fishery studies. This is simply not true. The biological opinion expressly considered the risk of entanglement in those lines. It found such entanglement "extremely unlikely,"<sup>13</sup> given the low density of whales during the period when Vineyard Wind will conduct fishery studies; the small number of fishing lines; the short duration of the proposed fishery studies; and the tiny territory in which the study will take place. The Residents

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<sup>13</sup> The Residents cherry-pick this language to suggest that NMFS dismissed as "extremely unlikely" the prospect that a whale would ever die from entanglement in fishing lines. Of course, that is not at all what the biological opinion said. The "extremely unlikely" language refers to the risk of entanglement from the Vineyard Wind fishery studies, not overall entanglement risk within or outside the wind development area.

neither acknowledge nor discredit the agency's reasoning on this front.

Second, the Residents claim that the biological opinion ignored the best available science on entanglement risk, which allegedly suggested that construction and operational noise would drive whales into a fishing area ("Area 537") with densely concentrated fishing lines. This enforced shift in whale distribution would, in turn, increase entanglement risk. The Residents assert that this phenomenon was outlined in a memorandum -- which NMFS supposedly neglected -- called the Atlantic Large Whale Take Reduction Team Key Outcomes Memorandum ("TRT Memo").

NMFS considered the broader impact of construction and operational noise on whale distribution patterns. For example, the agency examined whether construction noise would drive whales into parts of Area 537 with more ship traffic. The agency concluded that this was unlikely, given that pile driving is banned during months with high whale density. The same logic applies to the Residents' concern about entanglement risk, because entanglement is most likely in the January-April period when pile driving is banned. The biological opinion also found that noise pollution from the project would not alter the overall distribution of right whales. The Residents do not challenge these clear findings.



Moreover, NMFS did, in fact, review the TRT Memo. And nothing in that memo states that construction or operational noise will drive whales into portions of Area 537 with greater entanglement risk. The memo simply says that NMFS should consider fishing closures in Area 537. So, the Residents' fear about increased entanglement risk is purely speculative. And NMFS was not required to account for entirely speculative environmental effects that were neither suggested nor supported by the scientific evidence. See 50 C.F.R. § 402.14(h)(iii) (biological opinion must discuss "effects" of proposed action on endangered or threatened species); id. § 402.02 (the "effect" of a proposed agency action is a consequence that is "reasonably certain to occur"); see also Endangered and Threatened Wildlife and Plants; Regulations for Interagency Cooperation, 84 Fed. Reg. 44976, 44993 (Aug. 27, 2019) ("[T]he determination of a consequence to be reasonably certain to occur . . . should not be based on speculation or conjecture").<sup>14</sup>

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<sup>14</sup> After oral argument in this case, the U.S. Fish and Wildlife Service published new regulations revising the definition of "effects of the action" under the ESA. See Endangered and Threatened Wildlife and Plants; Regulations for Interagency Cooperation, 89 Fed. Reg. 24268 (Apr. 5, 2024) (to be codified at 50 C.F.R. pt. 402). But NMFS and BOEM issued their environmental review documents under the prior regulations, which were published in 2019. We therefore limit our analysis to those earlier regulations.

4.

The Residents then argue that the biological opinion ignores how the Vineyard Wind project will increase the risk of vessel strikes on right whales.

The Residents first argue that the ten-knot restrictions on vessel speed in the wind development area are insufficient, because crew transfer vessels are exempt. But crew transfer vessels must include species observers and passive acoustic monitoring to survey for nearby whales. If a whale is spotted, the ten-knot speed limit applies to all crew transfer vessels for the rest of the day. And as discussed above, the Residents have supplied no adequate ground on which to challenge the efficacy of passive acoustic monitoring or protected species observers. They therefore cannot demonstrate that NMFS acted arbitrarily by relying on those measures to mitigate the risk of vessel strikes.

The Residents also argue that project noise will drive whales into portions of Area 537 with more vessel traffic. As already discussed, the biological opinion expressly rejected this argument. And this is unsurprising -- it is not even clear that there are areas near the wind development area with substantially higher vessel traffic. Indeed, as the government notes, the "only areas outside of the lease [area] with higher vessel traffic are shipping lanes with commercial traffic located 21 to 30 miles from the project." The Residents do not explain why any project-related

noise disturbance would not dissipate well before a whale had swum thirty miles away from the wind development area. Thus, the Residents' concern about project noise increasing vessel strike risk is speculative, and insufficient to support a challenge under the ESA.

**C.**

The Residents next contend that NMFS failed to consider how the additive effects of the Vineyard Wind project would jeopardize the continued existence of the right whale. Under the implementing regulations of the ESA, NMFS must "[a]dd the effects of the action and cumulative effects to the environmental baseline and in light of the status of the species and critical habitat, formulate [an] opinion as to whether the action is likely to jeopardize the continued existence of" the listed species. 50 C.F.R. § 402.14(g)(4).

The Residents' briefing on this topic breaks little new ground. Instead, the Residents largely repeat the arguments detailed above, which we have already found unpersuasive. There is only one new argument in the Residents' briefing that might be relevant. The Residents point to language in *Quintana-Rizzo*, which suggests that widespread wind farm development in southern New England could broadly "affect the use of [the] region by right whales" and influence right whale migration throughout the mid-Atlantic.

These generalized statements do not render the biological opinion's no-jeopardy conclusion arbitrary and capricious. As an initial note, Quintana-Rizzo was describing the potential risks of "[t]he construction and maintenance of hundreds of wind turbines" throughout southern New England. It was not specifically analyzing Vineyard Wind. Also, the Quintana-Rizzo study did not suggest that right whale survival was incompatible with wind energy development. Instead, it urged policymakers to implement comprehensive monitoring and mitigation plans. That is what NMFS did here. And as discussed, the Residents have not demonstrated that the agency's proposed mitigation measures are inadequate, or that reliance on those measures was arbitrary and capricious.

**D.**

Finally, the Residents argue that BOEM violated NEPA by relying on NMFS's allegedly defective biological opinion. Recall that while an agency may rely on the findings in a biological opinion, such reliance is arbitrary and capricious if (1) the biological opinion is defective, or (2) the agency blindly relies on the biological opinion without conducting its own independent analysis. See City of Tacoma, 460 F.3d at 75-76.

Neither criterion is satisfied here. For the reasons discussed above, NMFS's biological opinion was not defective. Therefore, BOEM properly relied on it. Id. Moreover, BOEM did

not blindly rely on the biological opinion. Instead, BOEM's environmental impact statement includes a lengthy analysis of the Vineyard Wind project's likely effects on right whales.<sup>15</sup> As a result, we cannot conclude that BOEM's reliance on the NMFS biological opinion violated NEPA. Id.

**IV.**

For the foregoing reasons, the judgment of the district court is affirmed.

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<sup>15</sup> Although the Residents try to challenge portions of that standalone analysis in their reply, they failed to invoke those arguments in their opening brief. So, as discussed above, the Residents' specific challenges to BOEM's environmental impact statement are waived. See Rife, 873 F.3d at 19.

# APPENDIX B



et seq., and the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701-706. This action is one of four pending challenges to the Project in this District.<sup>1</sup>

Now before the court are cross-motions for summary judgment by Plaintiffs [Doc. No. 88], Defendants [Doc. No. 95], and Defendant-Intervenor Vineyard Wind 1 LLC (“Vineyard Wind”) [Doc. No. 99].

### **I. Background Concerning the Project**

The following background is drawn from the Administrative Record, as certified by BOEM and NMFS, and is common to all four pending challenges to the Project.

#### **A. BOEM’s Development of The Wind Energy Area**

In 2009, BOEM began evaluating the possibility of developing wind energy in the Outer Continental Shelf offshore from Massachusetts pursuant to BOEM’s authority under the Outer Continental Shelf Lands Act (“OCSLA”), 43 U.S.C. § 1331, et seq. Final Environmental Impact Statement (“Final EIS”) Vol. II, BOEM\_0068786 at -9170. In December 2010, BOEM published an initial Request for Interest (“RFI”) regarding wind energy development in the Outer Continental Shelf offshore from Massachusetts. The RFI also invited public submissions on environmental issues. Id.; see also Joint Record of Decision (“Joint ROD”), BOEM\_0076799 at -6802 (citing 75 Fed. Reg. 82,055 (Dec. 29, 2010)). In response to comments, BOEM reduced the planning area by 50%. Final EIS Vol. II, BOEM\_0068786 at -9170.

In February 2012, BOEM published a Call for Information and Nominations in the Federal Register to gauge interest in commercial leases for wind energy projects. Id. (citing 77

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<sup>1</sup> See Melone v. Coit et al., 1:21-cv-11171-IT; Seafreeze Shoreside, Inc. et al. v. Dep’t of Interior et al., 1:22-cv-11091-IT; Responsible Offshore Development Alliance v. Dep’t of Interior et al., 1:22-cv-11172-IT (“the Related Actions”).



Fed. Reg. 5821 (Feb. 6, 2012)). BOEM also published a notice of intent to prepare an environmental assessment in connection with potential wind energy leases and site assessment activities offshore from Massachusetts. Id.

In May 2012, BOEM identified a further reduced area for consideration for potential wind energy development (“the Wind Energy Area”) in the Outer Continental Shelf south of Nantucket and Martha’s Vineyard, Massachusetts, based on public comments concerning high sea duck concentrations and an area of high-value fisheries. Final EIS Vol. II, BOEM\_0068786 at -9170. BOEM then prepared an Environmental Assessment, regarding the proposed Wind Energy Area, to guide its leasing. See 2014 Revised Env’t Assessment, BOEM\_0000090 at -118.

In June 2014, BOEM issued its Revised Environmental Assessment concerning the proposed wind energy area. Id. At the time, BOEM concluded leasing and site assessment actions would not significantly impact the environment. Id. at -100.

On June 18, 2014, BOEM published a proposed sale notice and invited public comment on a proposal to sell four wind energy leases in the Wind Energy Area. Final EIS Vol. II, BOEM\_0068786 at -9171. Following public comment, BOEM published a final sale notice reflecting its intent to sell commercial wind energy leases in the Wind Energy Area, including Lease “OCS-A 0501.” See Final EIS Vol. II, BOEM\_0068786 at -9171, -9235.

#### **B. BOEM’s Award of the Lease**

In January 2015, BOEM conducted a competitive lease sale for Lease OCS-A 0501 (the “Lease”), ultimately awarding the Lease to Offshore MW, LLC, later renamed Vineyard Wind 1, LLC. Final EIS Vol. II, BOEM\_0068786 at -9171. The lease area covers 166,886 acres in the

Outer Continental Shelf (the “Lease Area”). Id.; April 1, 2015 Lease, BOEM\_0000764 at -0776. The Lease became effective April 1, 2015. Id. at BOEM\_0000764.

The Lease granted Vineyard Wind the right to seek approval for a Site Assessment Plan (“SAP”) and a Construction Operations Plan (“COP”). Id. On November 22, 2017, Vineyard Wind submitted a Site Assessment Plan (“SAP”) to BOEM for the Vineyard Wind Lease Area. May 10, 2018 Approval of SAP, BOEM\_0013366. On May 10, 2018, BOEM approved Vineyard Wind’s SAP, subject to numerous conditions, including for the protection of cultural resources, marine mammals and sea turtles, and implementation of mitigation measures. Id.

### **C. Biological Review(s) of the Project’s Impacts by BOEM and NMFS**

#### *1. Environmental Impact Statement(s) prepared by BOEM*

On December 19, 2017, Vineyard Wind submitted to BOEM for consideration under OCSLA a proposed COP for the Project to be constructed in 65,296 acres of the Vineyard Wind Lease Area, referred to as the Wind Development Area or “WDA.” Dec. 19, 2017 COP Submission Letter, BOEM\_0006004-06; December 19, 2017 COP BOEM\_0001361-6003. On March 30, 2018, BOEM published a notice of its intent to prepare an EIS for the COP. 83 Fed. Reg. 13,777 (Mar. 30, 2018), BOEM\_0012028. The notice described the Project and invited the public to participate in public comment and public scoping meetings BOEM later conducted. Id.; BOEM\_012406-13078 (April 2018 meeting transcripts)). On December 7, 2018, BOEM published a notice of availability of the Draft EIS in the Federal Register. 83 Fed. Reg. 63,184 (Dec. 7, 2018), BOEM\_0034694. As summarized in the notice, the Draft EIS analyzed the proposed COP and several alternatives, including different locations for cable landfall, reduction in project size, several options for turbine layout, and a no-action alternative. Id. The notice

invited public comment and/or participation at public hearings BOEM later conducted. Id.; see also BOEM\_035872-36269 (Draft EIS public meeting transcripts).

Vineyard Wind submitted numerous updates to the proposed COP over the course of BOEM's review. See Final EIS Vol. I, BOEM\_0068434 at -8440 (listing prior iterations of the COP). The updates addressed comments from BOEM, modified the Project design envelope, and accounted for the possibility of higher capacity wind turbine generators, which would ultimately reduce the number of wind turbines to be installed and reduce the total Project area. See, e.g., Jan. 22, 2021 Letter from Vineyard Wind to BOEM, BOEM\_0067698-7701.

On June 12, 2020, BOEM published a notice in the Federal Register that the supplement to the Draft EIS ("Supplemental Draft EIS") was available on BOEM's website, invited public comment in connection with the notice and participation at public meetings BOEM later held virtually. 85 Fed. Reg. 35,952 (June 12, 2020), BOEM\_0057578; June-July 2020 Public Meeting Transcripts, BOEM\_058001-59241. BOEM prepared the Supplemental Draft EIS "in consideration of the comments received during the [NEPA] process and in connection with cooperating agencies." Supplemental Draft EIS, BOEM\_0056950 at -6954. In particular, BOEM expanded its analysis of the reasonably foreseeable effects from cumulative activities for offshore development, included previously unavailable fishing data, considered a new transit lane alternative through the WDA, and addressed changes to the proposed COP since publication of the Draft EIS. Joint ROD, BOEM\_0076799 at -6803-04; 85 Fed. 35,952 (June 12, 2020), BOEM\_0057578; Supplemental Draft EIS, BOEM\_0056950 at -6954. The transit lane alternative that was included was in response to a proposal from the Responsible Offshore Development Alliance for a northwest/southeast transit corridor to facilitate transit for fishing

vessels from southern New England to fishing areas. Supplemental Draft EIS, BOEM\_0056950 at -6958.

On December 1, 2020, Vineyard Wind notified BOEM that it was withdrawing the proposed COP from review in order to conduct a technical and logistical review of the turbines selected for inclusion in the final Project design. Dec. 1, 2020 Vineyard Wind Letter to BOEM, BOEM\_0067649-50; see also Final EIS Vol. I, BOEM\_0068434 at -8440 n.3. Vineyard Wind's notice of withdrawal indicated that Vineyard Wind intended to rescind the withdrawal upon completion of its due diligence review. Dec. 1, 2020 Vineyard Wind Letter to BOEM, BOEM\_0067649-50. On December 16, 2020, following Vineyard Wind's notification that it was withdrawing the COP pending further technical and logistical review, BOEM published a notice in the Federal Register stating that "since the COP has been withdrawn from review and decision-making, there is no longer a proposal for major federal action awaiting technical and environmental review, nor is there a decision pending before BOEM...[the] notice advises the public that the preparation of an EIS is no longer necessary, and the process is hereby terminated." Fed. Reg. 81,486 (Dec. 16, 2020), BOEM\_0067694.

On January 22, 2021, Vineyard Wind notified BOEM that Vineyard Wind had completed its review and "had concluded that the proposed turbines did not fall outside of the project design envelope being reviewed in the COP" and requested that BOEM resume review of the COP, most recently updated on September 20, 2020. Joint ROD, BOEM\_0076799 at -6804.

On March 3, 2021, BOEM published a notice in the Federal Register stating it was resuming preparation of a final environmental impact statement related to the COP. Joint ROD, BOEM\_0076799 at -6804. On March 12, 2021, BOEM posted the Final EIS, which consists of 1,600 pages in four volumes assessing the environmental, social, economic, historic, and cultural

impacts of the Vineyard Wind Project, from construction to decommissioning, on BOEM's website and issued a notice of availability in the Federal Register. 86 Fed. Reg. 14,153 (Mar. 12, 2021), BOEM\_0071036; see also Final EIS, BOEM\_0068434-70061.

## *2. Biological Opinion*

On December 6, 2018, BOEM sent a request to NMFS to conduct a biological consultation pursuant to Section 7 of the ESA. BOEM ESA Consultation Request, BOEM\_0034533-4688. BOEM made the request in its capacity as the lead Federal agency in the Section 7 consultation process for the Vineyard Wind Project on behalf of itself, the Army Corps of Engineers ("Corps"), and NMFS Office of Protected Resources ("NMFS/OPR"). 2021 Biological Opinion, BOEM\_0077276 at -7280. On May 1, 2019, NMFS's Greater Atlantic Regional Office ("NMFS/GAR") agreed to initiate formal consultation to consider the effects of the proposed actions on ESA-listed whales, including the North Atlantic right whale, sea turtles, fish, and the critical habitat for various species that may be present in the proposed action area. NMFS Initiation Letter, NMFS 16008. On September 11, 2020, NMFS/GAR issued a biological opinion (the "2020 BiOp") pursuant to its obligations under Section 7(a)(2) of the ESA on behalf of itself, BOEM, NMFS/OPR, and the Corps. Sept. 11, 2020 NMFS BiOp Transmittal Letter to BOEM, NMFS 16027-28; 2020 BiOp, NMFS 16029-354. The 2020 BiOp concluded that the "proposed action may adversely affect but is not likely to jeopardize the continued existence" of the North Atlantic right whales, among other species. Sept. 11, 2020 NMFS BiOp Transmittal Letter, NMFS 16029; 2020 BiOp, NMFS 16029 at -6317.

On May 7, 2021, BOEM requested that NMFS/GAR reinstate its biological consultation. 2021 BiOp, BOEM\_0077276 at -7281; May 7, 2021 Letter from BOEM to NMFS/GAR, BOEM\_0076721. On May 27, 2021, NMFS/GAR advised BOEM that it agreed that consultation

must be reinitiated and that it anticipated such consultation would result in a new BiOp that would replace the 2020 BiOp. 2021 BiOp, BOEM\_0077276 at -7281. The biological consultation was reinitiated to consider (i) the effects of monitoring surveys identified in the Joint ROD by BOEM, at NMFS's recommendation, as conditions of COP approval, which were not considered in the 2020 BiOp, and (ii) new information concerning the status of the right whale. 2021 BiOp Transmittal Mem., NMFS 017683 at -7683-84; BOEM Mem. to Record, BOEM\_077788-89.

On October 18, 2021, NMFS/GAR issued the reinitiated BiOp, and on November 1, 2021, NMFS reissued the reinitiated BiOp ("2021 BiOp") with corrections after typos and other non-substantive errors were identified and corrected. See Oct. 18, 2021 NMFS Transmittal Letter to BOEM, NMFS 16668; Nov. 1, 2021 Transmittal Letter, NMFS 17172; 2021 BiOp, BOEM\_0077276-7779. The 2021 BiOp supersedes the 2020 BiOp. Nov. 1, 2021 Transmittal Letter, NMFS 17172 at -74; Oct. 18, 2021 NMFS Transmittal Letter to BOEM, NMFS 16668 ("this Opinion replaces the Opinion we issued to you on September 20, 202[0]"). In formulating its biological opinions, NMFS/GAR considered documents prepared by BOEM, including each iteration of the EIS, Vineyard Wind's proposed COP and updates, BOEM's COP Approval, and the Incidental Harassment Authorization issued by NMFS/OPR, discussed further below. 2021 BiOp, BOEM\_0077276 at -7285-86, -88, -63-64. The 2021 BiOp analyzed the direct and indirect effects of the approved COP, the modifications proposed by BOEM, and those proposed by NMFS/OPR in the IHA. Id. NMFS/GAR also updated the 2021 BiOp to reflect the best scientific information available concerning right whales and explain whether any of the new information affected the analysis. Oct. 15, 2021 Transmittal Mem., NMFS 17683 at -86-87.

Like the 2020 BiOp, the 2021 BiOp concludes the proposed action is not likely to jeopardize the continued existence of the right whales. 2021 BiOp, BOEM\_0077276 at -7657. Also like the 2020 BiOp, the 2021 BiOp included an incidental take statement (“ITS”) and imposed reasonable and prudent measures and their implementing terms and conditions to minimize and document the take of ESA-listed species. 2021 BiOp, BOEM\_0077276 at -7657-78; 2020 BiOp, NMFS 16029-354. The 2021 BiOp reflects that NMFS anticipates the incidental take of up to 20 right whales by Level B harassment, harassment that has the potential to “disturb a marine mammal...in the wild by causing disruption of behavioral patterns,” due to exposure to pile driving noise based on the “maximum impact scenario” for the Project. 2021 BiOp BOEM\_0077660-62, -7299. The maximum impact scenario is defined as 90 monopiles being placed in the Wind Development Area, with 12 jackets, at a rate of one pile being driven per day, assuming only 6 decibels of attenuation, or reduction of sound through mitigation measures. 2021 BiOp, BOEM\_0077276 at -7660-61. The 2021 BiOp notes that Vineyard Wind may install fewer turbines and models the corresponding decrease in likely harassment to right whales and other animals. Id. The 2021 BiOp concludes that “neither Vineyard Wind nor NMFS expect[s] serious injury or mortality to result from this activity, and therefore, NMFS has determined that an IHA is appropriate.” Id. at -7284; see also id. at -7658 (reflecting in all modeled scenarios that no injury is anticipated with respect to right whales). BOEM and NMFS/OPR each adopted the 2021 BiOp. 2021 BiOp, BOEM\_0077276 at -7788; NMFS 3557. The 2021 BiOp concluded, based on all scenarios modeled with 12 decibels sound attenuation, that no right whales would be subject to Level A harassment, which is defined under the Marine Mammal Protection Act (“MMPA”) as “harassment” that has the potential to injure a marine mammal. 2021 BiOp,

BOEM\_0077276 at -7299-300.<sup>2</sup> The 2021 BiOp includes an analysis of the effect of Project vessels, estimating that the Project will increase overall vessel traffic by 4.8% during the construction phase and by 1.6% during the operational phase of the Project. *Id.* at -7508. The 2021 BiOp concludes, based on traffic, combined with mitigation measures and other requirements for project vessels, that it is “extremely unlikely that a project vessel will collide with a whale.” *Id.* at -7527.

On December 1, 2021, NMFS filed a Memorandum for the Record regarding the issuance of the 2021 BiOp, reflecting that the NMFS Permits and Conservation Division (PR1) was adopting the 2021 BiOp. NMFS Mem. to Record, NMFS 3557. On January 20, 2022, BOEM determined, pursuant to 50 C.F.R. § 402.15(a), that “because the activities authorized under BOEM’s COP approval—including the monitoring surveys—are subject to the terms and conditions and reasonable and prudent measures found in the 2021 BiOp, no further action is required in order for Vineyard Wind to proceed with construction and operation of the Project.” BOEM Information Mem. to Record, BOEM\_077788-89.

#### **D. Other Agency Review<sup>3</sup>**

##### *1. Incidental Harassment Authorization*

Meanwhile, on September 7, 2018, Vineyard Wind submitted a request under the MMPA to NMFS/OPR for an Incidental Harassment Authorization, seeking authorization of the likely

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<sup>2</sup> Vineyard Wind did not seek authorization for Level A harassment because it anticipated that that such harassment “will be avoided through enhanced mitigation and monitoring measures proposed specifically for North Atlantic right whales.” 2021 BiOp, BOEM\_0077276 at -7451.

<sup>3</sup> The Vineyard Wind Project was also subject to review by other agencies whose actions were not challenged by Plaintiffs here or in the Related Actions. *See* Final EIS Vol. II, BOEM\_0068786 at -9170-78 (discussing review under several other statutes, including the Coastal Zone Management Act, the National Historic Preservation Act, and the Magnuson-Stevens Fishery Conservation and Management Act).



incidental taking by harassment that may occur from impact pile driving in connection with the Project. Draft IHA Application, NMFS 14218-14550; Transmittal Email, NMFS 14451. In October 2018, and then January 2019, Vineyard Wind submitted revised versions of its IHA application to NMFS/OPR. Transmittal Emails, NMFS 14457, NMFS 14581; January 2019 Draft IHA Application, NMFS 14737-4984. The Vineyard Wind IHA Application was deemed complete on February 15, 2019. 84 Fed. Reg. 18,346 (April 30, 2019), NMFS 3392. Notice inviting public comment on the proposed IHA was published in the Federal Register 74 days later, on April 30, 2019. Id. The public comment period closed on May 30, 2019. Id.

Approximately two years later, on May 21, 2021, NMFS issued the IHA to Vineyard Wind. May 21, 2021 Letter Issuing IHA, NMFS 3514; IHA, NMFS 3489-3509. On June 25, 2021, NMFS/OPR issued notice of its approval of an IHA under the MMPA, 16 U.S.C. §§ 1361, et seq., NMFS 3415; see also 86 Fed. Reg. 33,810 (June 25, 2021) (“Notice of Issuance of IHA”), NMFS 3515-3556. The notice responded to the public comments NMFS/OPR received, explained the basis for the agency’s decision, and described the mitigation, monitoring, and reporting requirements that were imposed by the IHA. Notice of Issuance of IHA, NMFS 3515-3556.

The IHA is valid from May 1, 2023, through April 30, 2024. IHA, NMFS 3489. The IHA authorizes a maximum take by Level B harassment of 20 incidents to right whales. Notice of Issuance of IHA, NMFS 3515 at -3551. The Notice of Issuance defines Level B Harassment as “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.” Notice of Issuance of IHA, NMFS 3515 at -3532; see also 50 C.F.R. § 216.3.

*2. Clean Air Act Permits*

On August 17, 2018, Vineyard Wind applied to the U.S. Environmental Protection Agency (“EPA”) for a permit under the Clean Air Act concerning construction of a wind farm. 2021 BiOp, BOEM\_0077276 at -7282-83. On April 19, 2019, Vineyard Wind submitted a subsequent application for an operating permit in accordance with 310 C.M.R. 7.00. Id. On June 28, 2019, the EPA issued a draft permit for public comment. Id. On May 19, 2021, the EPA issued a permit to Vineyard Wind. Id.

*3. Rivers and Harbors & Clean Water Act Permits*

On December 26, 2018, the Corps issued a public notice in the Federal Register regarding proposed permits under the Rivers and Harbors Act and Section 404 of the Clean Water Act, to permit Vineyard Wind to construct, maintain, and eventually decommission an 800 megawatt wind energy facility, two electronic service platforms, scour protection around the bases of the wind turbine generators and electronic service platforms, connection between the turbines and the service platforms, and two export cables with scour protection within a single 23.3 mile long corridor. Joint ROD, BOEM\_0076799 at -6803, -6807. The public comment period ran from December 26, 2018, to January 18, 2019. Joint ROD, BOEM\_0076799 at -6828. The Corps did not receive any comments from the public during or after the public comment period. Id. The Corps issued a permit, with special conditions, to Vineyard Wind on August 9, 2021. 2021 BiOp, BOEM\_0077276 at -7282.

**E. The Approved Vineyard Wind Project**

On May 10, 2021, BOEM, NMFS, and Corps issued a Joint ROD adopting the Final EIS. Joint ROD, BOEM\_0076799-898. The Joint ROD consolidated the records of decision by each respective agency, specifically, BOEM’s action to approve the COP under OCSLA, the Corps’

issuance of permits under the Clean Water Act and Rivers and Harbors Act, and NMFS/OPR's issuance of an IHA under the MMPA. Joint ROD, BOEM\_0076799-898. The Joint ROD reflects that BOEM's approval of the COP would be subject to mitigation and monitoring measures outlined in the Final EIS and any additional technical, navigational, and safety conditions imposed by BOEM. Joint ROD, BOEM\_0076799 at -6820-21, -6827.

On July 15, 2021, BOEM issued final approval of Vineyard Wind's COP under OCSLA. July 15, 2021 VWI COP Project Easement and Approval Letter ("COP Approval Letter"), BOEM\_0077150-265. The Project, as approved, will involve 84 or fewer wind turbines to be installed in 100 of the locations proposed by Vineyard Wind in the Wind Development Area, in an east-to-west orientation, with a minimum spacing of 1 nautical mile each. Joint ROD, BOEM\_0076799 at -6821. The Project is located approximately 14 nautical miles south of Nantucket Island and Martha's Vineyard at its nearest point. Final EIS Vol. II, BOEM\_0068786 at -8863. As part of construction of the Project, project-related vessels will travel primarily from New Bedford, Massachusetts, approximately fifty miles from the WDA, although some vessel trips will originate in Canadian ports. 2021 BiOp, BOEM\_0077276 at -7294.

BOEM's final approval is subject to numerous terms and conditions, including compliance with all "statutes, regulations, and permits and authorizations issued by Federal and state agencies for the [P]roject." COP Approval Letter, BOEM 077150 at -152. The COP Approval Letter also noted that all activities authorized thereunder by BOEM "will be subject to any terms and conditions and reasonable and prudent measures resulting from a BOEM-reinitiated consultation for the Project's BiOp." COP Approval Letter, BOEM 077150 at -7152. The IHA set forth a number of minimization and monitoring measures, which were incorporated into the conditions of the COP Approval and set forth in the 2021 BiOp. IHA, NMFS 3489-3509.

Numerous other measures were laid out in the Joint ROD pertaining to right whales and other ESA-listed animals. See Joint ROD, Appendix A, BOEM\_0076852-897. The mitigation measures include:

1. **Seasonal restriction on pile driving.** Pile driving is not permitted from January 1 through April 30 to avoid the time of year with highest densities of right whales in the Project Area. Pile driving is not permitted in December, except in the event of unanticipated delays, and will require enhanced protection measures and approval by BOEM. 2021 BiOp, BOEM\_0077276 at -7451-52; IHA, NMFS 3489 at -3490.
2. **A “soft start” pile driving procedure.** Vineyard Wind will begin pile driving activities with three rounds of three impact hammer strikes at a reduced energy, each followed by a one-minute waiting period. Vineyard Wind will use this “soft start” approach for each pile to be driven at the beginning of a day’s pile driving activities, and at any point where pile driving has ceased for thirty minutes or longer. 2021 BiOp, BOEM\_0077276 at -7458. This “soft start” procedure is designed to “provide a warning to any marine mammals” and the opportunity to disperse from the area prior to higher intensity pile driving, to reduce the change of Level A or Level B harassment of right whales. 2021 BiOp, BOEM\_0077276 at -7458.

Although NMFS expects soft-start procedures to reduce the effects of pile driving on right whales, NMFS was unable to modify the estimated taken numbers to account for such benefit because NMFS could not predict the extent to which soft start would reduce exposure. 2021 BiOp, BOEM\_0077276 at -7458.

3. **The use of protected species observers.** Vineyard Wind must employ qualified, trained protected species observers (“PSOs”) to conduct monitoring for marine mammals during pile driving activity. These individuals must be approved by NMFS and are subject to certain conditions, including that they must be independent observers, rather than construction personnel. IHA, NMFS 3489 at -3499-3500. At least two PSOs must be stationed on the pile driving vessel at all times sixty minutes prior to, during, and thirty minutes after pile driving. IHA, NMFS 3489 at -3490.
4. **Passive Acoustic Monitoring & Other Reporting.** Passive Acoustic Monitoring (“PAM”) will be used “record ambient noise and marine mammal vocalizations in the [L]ease [A]rea before, during, and after [construction] to monitor project impacts relating to vessel noise, pile driving noise, [wind turbine] operational noise, and to document whale detections in the WDA.” 2021 BiOp, BOEM\_0077276 at -7298. PAM-generated noise data must be interpreted by an expert trained to discern the species of whale making sounds detected. Id.

5. **The establishment of pile driving clearance zones.** Vineyard Wind PSOs must establish clearance zones for right whales between sixty minutes prior pile driving activities and thirty minutes after completion of pile driving activities. The clearance zones range depending on the time of year from 2-10 km for visual and 5-10 km for PAM. Zones are the smallest from June to December 31, when the BiOp concludes there is a lower probability of right whales being present in the pile driving area. 2021 BiOp, BOEM\_0077276 at -7319.

Vineyard Wind vessels must also use all other available sources of information on right whale presence, including the Right Whale Sightings Advisory System, WhaleAlert app, and monitoring of Coast Guard channels to plan vessel routes. IHA, NMFS 3489 at -3496.

6. **Vessel Speed Restrictions.** Vessels must comply with the NOAA Ship Strike Rules' speed restrictions, that restrict speed to 10 knots in certain restricted zones. IHA, NMFS 3489 at -3497; see also 2021 BiOp, BOEM\_0077276 at -7520. All vessels travelling over 10 knots must have a dedicated visual observer on duty at all times, such as a PSO or crew member. IHA, NMFS 3489 at -3496. Where a crew transfer vessel is not subject to the 10-knot speed limit, it must employ an additional PSO or other enhanced detection method to monitor for right whales, in addition to PAM. Id. at -3497.
7. **Heightened Measures in Dynamic Management Areas and Slow Zones.** Dynamic Management Areas ("DMA"), as defined by the 2008 NOAA Ship Strike Rules (73 Fed. Reg. 60,173), are temporary protection zones designed to reduce lethal right whale strikes and are triggered when three or more whales are sighted within 2-3 miles of each other outside of the seasonal protection zones, See 2021 BiOp, BOEM\_0077276 at -7675. NMFS adopted an additional protective measure, referred to as Right Whale Slow Zones, based on acoustical detection of a vocalizing right whale. When a right whale is detected acoustically, notifications of a "Slow Zone," covering a protective circle with a radius of 20 nautical miles from any point of detection, are triggered. Id.; see also NOAA Fisheries, Help Endangered Whales: Slow Down in Slow Zones (Dec. 23, 2021) available at <https://www.fisheries.noaa.gov/feature-story/help-endangered-whales-slow-down-slow-zones>. In instances where a DMA or Slow Zone has been triggered, NMFS requires that Vineyard Wind use an increased number of PSOs, and establish an extended exclusion zone with PAM, in addition to other restrictions established by the rules pertaining to DMAs and Slow Zones. 2021 BiOp, BOEM\_0077276 at -7675.

As the 2021 BiOp acknowledges, numerous mitigation measures are designed not only to protect right whales from harassment, but also to protect other species. For instance, Vineyard Wind is required to implement PSOs for several species of sea turtles, and the soft-start pile driving

procedures are designed to disperse any undetected sea turtles, right whales, and other marine species from the Area. See 2021 BiOp, BOEM\_0077276 at -7480-82, -7458.

## II. Factual Record as to Plaintiffs' Standing

### A. Plaintiff Vallorie Oliver

Plaintiff Vallorie Oliver is a lifelong resident of Nantucket Island. Joint Statement of Undisputed Facts (“Joint SOF”) ¶ 3 [Doc. No. 118]; Decl. of Vallorie Oliver in Supp. of Pls. Mot. for Summ. J. (“Oliver Decl.”) ¶ 3 [Doc. No. 88-2]. Oliver founded Plaintiff ACK RATs in 2018 and serves as its president. Joint SOF ¶ 4 [Doc. No. 118]; Oliver Decl. ¶ 2 [Doc. No. 88-2]. Oliver enjoys the opportunity to observe marine animals in their natural habitat, Oliver Decl. ¶ 3 [Doc. No. 88-2], and has seen right whales in the waters around Nantucket, including “water potentially affected by the proposed Vineyard Wind [P]roject,” Supplemental Declaration of Vallorie Oliver in Support of Plaintiffs' Motion for Summary Judgment and in Opp. to Cross-Motions for Summary Judgment (“Oliver Suppl. Decl.”) ¶ 4 [Doc. No. 108].<sup>4</sup> Oliver has “concrete” plans to observe right whales in the waters around Nantucket in the future, id., but has provided no details regarding those plans.<sup>5</sup> Oliver states that, were any harm to come to right

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<sup>4</sup> Defendants and Vineyard Wind challenge this statement as “vague and not substantiated with evidence of Ms. Oliver traveling to the Project Area.” Fed. Defs. Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 3 [Doc. No. 113]; Vineyard Wind Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 3 [Doc. No. 116]. However, where Oliver’s Supplemental Declaration states, under oath, that she has direct knowledge of the facts set forth therein, the court takes her unrebutted statements of fact as true for purposes of summary judgment.

<sup>5</sup> Defendants and Vineyard Wind dispute Oliver’s statement “as conclusory and unsupported by credible evidence” where she has not identified any such plans. See Fed. Defs. Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 4 [Doc. No. 113]; Vineyard Wind Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 4 [Doc. No. 116]. Again, however, where Oliver’s Supplemental Declaration states, under oath, that she has direct knowledge of the facts set forth therein, the court takes her unrebutted statements of fact as true for purposes of summary judgment.

whales because of the Project, she would feel she has failed in her duty to protect them. Oliver Decl. ¶ 3 [Doc. No. 88-2]. Oliver states further that she would suffer “ecological grief” were she to hear about the loss of even one right whale to the Project. Oliver Suppl. Decl. ¶ 8 [Doc. No. 108]. Oliver states that she would similarly experience “heartsickness” if the Project’s pile driving activities were to cause hearing damage to any right whales or force the right whales outside of the construction zone and towards other threats. Oliver Suppl. Decl. ¶ 9 [Doc. No. 108].

Oliver states that her respiratory health will be affected because the Project’s emissions will affect the entire southeastern Massachusetts region, including Nantucket, where Oliver lives, as well as Barnstable and New Bedford, Massachusetts, where Oliver frequently visits. Oliver Suppl. Decl. ¶ 12 [Doc. No. 108]. Oliver states that she will also be affected by the increase in greenhouse gas emissions caused by the Project because they may exacerbate climate change as experienced on and near Nantucket. Oliver Suppl. Decl. ¶ 13 [Doc. No. 108].

**B. Plaintiff Nantucket Residents Against Turbines (ACK RATs)**

ACK RATs is a non-profit organization incorporated in Massachusetts. Joint SOF ¶ 1 [Doc. No. 118]. ACK RATs’ members include Oliver and non-party Amy DiSibio.

DiSibio, joined ACK RATs in 2021 and serves on the Organization’s board of directors. Joint SOF ¶ 5 [Doc. No. 118]; Decl. of Amy DiSibio in Supp. of Pls. Mot. for Summ. J. (“DiSibio Decl.”) ¶ 3 [Doc. No. 88-3]. DiSibio owns a home on Nantucket Island. DiSibio Decl. ¶ 2 [Doc. No. 88-3]. DiSibio and her family have been visiting Nantucket for more than thirty years. *Id.* DiSibio enjoys the opportunities to observe marine mammals in their natural habitat surrounding Nantucket. *Id.* ¶ 4. DiSibio and her family enjoy whale watching off Nantucket. *Id.*

DiSibio states that she feels a responsibility to protect the right whale from damage that could be caused by the Vineyard Wind Project. Id.

Plaintiffs have not identified any members of ACK RATs other than Oliver and DiSibio and has not provided any other information about its members. Joint SOF ¶ 10 [Doc. No. 118].

### **III. Procedural Background**

Plaintiffs ACK RATs and Vallorie Oliver notified Defendants of their intent to sue on May 27, 2021, and instituted this action on August 27, 2021. Complaint [Doc. No. 1]. On November 27, 2021, Plaintiffs submitted the revised 60-Day Letter to the Defendants (“60-Day Letter”). [Doc. No. 96-3]. Two days later, Plaintiffs submitted a supplement to the 60-Day Letter regarding the 2021 BiOp’s purported failure to identify or describe any existing “take” authorizations for numerous listed species in the section discussing the Environmental Baseline for the Project. [Doc. No. 96-4].

On January 7, 2022, the court granted Vineyard Wind’s motion to intervene. Jan. 7, 2022 Mem. and Order [Doc. No. 54]; see also Vineyard Wind Mot. to Intervene [Doc. No. 11].

On February 10, 2022, Plaintiffs filed an amended complaint. First Amended Complaint [Doc. No. 59]. Plaintiffs claim that NMFS acted arbitrarily, capriciously, and unlawfully in issuing the 2021 BiOp in violation of ESA Section (7)(a)(2) by failing to adequately consider the Project’s impact on North Atlantic right whales, including by failing to engage in the “best available” science with respect to right whales as required by the ESA. First Amended Complaint ¶¶ 71-73 [Doc. No. 59]. Plaintiffs further contend that both NMFS and BOEM violated and continue to violate Section 7(a)(2) of the ESA by failing to ensure through consultation that BOEM’s approval of impacts of the Project will not jeopardize the right whale. First Amended Complaint ¶¶ 75-76 [Doc. No. 59]. Finally, Plaintiffs claim that BOEM violated



NEPA by failing to take the requisite “hard look” at the environmental consequences of the Project, both as to the right whales and as to the air quality and emissions impacts, instead issuing a Final EIS that reflected many of the same claimed procedural and substantive defects as the 2021 BiOp. First Amended Complaint ¶¶ 7, 67-69 [Doc. No. 59].<sup>6</sup>

Defendants certified the Administrative Record on April 11, 2022, Fed. Defendants’ Notice of Filing Certified Indices to Administrative Records [Doc. No. 71], and filed Addenda on May 19, 2022, June 13, 2022, and July 1, 2022, Fed. Defendants’ Notices of Filing Certified Index to NMFS Administrative Record Addenda [Doc. Nos. 75, 76, 78, 83]. The parties’ pending cross-motions and consolidated briefing followed. [Docs Nos. 88-89, 92, 95-96, 98-102, 105-109, 112-118, 127].

#### **IV. Standard of Review**

Under Federal Rules of Civil Procedure 56(a), summary judgment is appropriate when “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” A fact is material when, under the governing substantive law, it could affect the outcome of the case. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986); Baker v. St. Paul Travelers, Inc., 670 F.3d 119, 125 (1st Cir. 2012). A dispute is genuine if a reasonable jury could return a verdict for the non-moving party. Anderson, 477 U.S. at 248.

The moving party bears the initial burden of establishing the absence of a genuine dispute of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986). This burden can be satisfied

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<sup>6</sup> Plaintiffs have waived several additional claims by failing to raise them in their summary judgment papers, including that Defendants violated NEPA by failing to consider the cultural and aesthetic impacts of the Project and any ESA or NEPA claims as to animals other than right whales. Compare First Amended Complaint ¶¶ 7, 67-68 [Doc. No. 59], with Pls. Mem. in Support of Summary Judgment (“Pls. Mem.”) at 6-7, 43-49 [Doc. No. 89].

in two ways: (1) by submitting affirmative evidence that negates an essential element of the non-moving party's claim or (2) by demonstrating that the non-moving party failed to establish an essential element of its claim. Id. at 331. Once the moving party establishes the absence of a genuine dispute of material fact, the burden shifts to the non-moving party to set forth facts demonstrating that a genuine dispute of material fact remains. Anderson, 477 U.S. at 255-56.

The non-moving party cannot oppose a properly supported summary judgment motion by “rest[ing] on mere allegations or denials of [the] pleadings.” Id. at 256. Disputes over facts “that are irrelevant or unnecessary” will not preclude summary judgment. Anderson, 477 U.S. at 248. When reviewing a motion for summary judgment, the court must take all properly supported evidence in the light most favorable to the non-movant and draw all reasonable inferences in the non-movant's favor. Griggs-Ryan v. Smith, 904 F.2d 112, 115 (1st Cir. 1990). “Credibility determinations, the weighing of evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge . . . ruling on a motion for summary judgment.” Anderson, 477 U.S. at 255.

The fact that the parties have filed cross motions does not alter these general standards; rather the court reviews each party's motion independently, viewing the facts and drawing inferences as required by the applicable standard, and determines, for each side, the appropriate ruling. See Wightman v. Springfield Terminal Ry. Co., 100 F.3d 228, 230 (1st Cir. 1996) (noting that cross-motions for summary judgment do not “alter the basic Rule 56 standard” but rather require the court “to determine whether either of the parties deserves judgment as a matter of law on facts that are not disputed”).

## V. Standing

The court begins with a threshold jurisdictional issue. Defendants and Vineyard Wind contend that Plaintiffs have failed to establish that they will suffer a concrete injury and thus lack standing. Plaintiffs contend that declarations provided by Plaintiff Vallorie Oliver, [Doc. Nos. 88-2; 108], and non-party Amy DiSibio [Doc. No. 88-3] are sufficient to establish standing on summary judgment.

### A. Applicable Law

The doctrine of standing is rooted in Article III of the Constitution, which confines federal courts to the adjudication of actual “cases” and “controversies.” See U.S. Const. Art. III, § 2, cl. 1; Lujan v. Defs. of Wildlife, 504 U.S. 555, 560–61 (1992). Standing consists of three elements: “[t]he plaintiff must have (1) suffered an injury in fact, (2) that is fairly traceable to the challenged conduct of the defendant, and (3) that is likely to be redressed by a favorable judicial decision.” Spokeo, Inc. v. Robins, 578 U.S. 330, 338 (2016), as revised (May 24, 2016) (quoting Defs. of Wildlife, 504 U.S. at 560-61). “The standing inquiry is claim-specific: a plaintiff must have standing to bring each and every claim that she asserts.” Katz v. Pershing, LLC, 672 F.3d 64, 71 (1st Cir. 2012) (citing Pagán v. Calderón, 448 F.3d 16, 26 (1st Cir. 2006)).

To establish the first element of standing, an injury-in-fact, a plaintiff must demonstrate “an invasion of a legally protected interest” that is “concrete and particularized” and “actual or imminent, not conjectural or hypothetical.” Defs. of Wildlife, 504 U.S. at 560. “The particularization element of the injury-in-fact inquiry reflects the commonsense notion that the party asserting standing must not only allege injurious conduct attributable to the defendant but also must allege that he, himself, is among the persons injured by that conduct.” Hochendoner v. Genzyme Corp., 823 F.3d 724, 731-32 (1st Cir. 2016).

Standing also requires causation and redressability, which “‘overlap as two sides of a causation coin.’” Carpenters Indus. Council v. Zinke, 854 F.3d 1, 6 n.1 (D.C. Cir. 2017) (quoting Dynalantic Corp. v. Dep’t of Def., 115 F.3d 1012, 1017 (D.C. Cir. 1997)). “[I]f a government action causes an injury, enjoining the action usually will redress that injury.” Id.<sup>7</sup>

An association cannot establish standing to sue on behalf of its members unless “at least one of [its] members possesses standing to sue in his or her own right.” United States v. AVX Corp., 962 F.2d 108, 116 (1st Cir. 1992). An association must also establish that the interests at stake are germane to the organization’s purpose, and that “neither the claim asserted nor the relief requested requires individual members’ participation in the lawsuit.” Friends of the Earth, Inc. v. Laidlaw Environ. Servs. (TOC), Inc., 528 U.S. 167, 169 (2000).

Because standing is not a “mere pleading requirement[] but rather an indispensable part of the plaintiff’s case,” standing must be supported “with the manner and degree of evidence required at the successive stages of the litigation.” Defs. of Wildlife, 504 U.S. at 561; see also People to End Homelessness v. Develco Singles Apartments Assoc., 339 F.3d 1, 8 (1st Cir. 2003). While at the pleadings stage, “general factual allegations of injury” may suffice, and at summary judgment, such allegations must be supported by affidavits which will be taken to be true, where standing remains a controverted issue at trial, the specific facts establishing standing “must be ‘supported adequately by the evidence adduced at trial.’” Id. (quoting Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 114, 115 n.31 (1979)).

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<sup>7</sup> Neither Defendants nor Vineyard Wind challenge causation or redressability on summary judgment.

## B. Endangered Species Act Claim

Plaintiffs point to several interests they contend are sufficient to establish injury-in-fact for standing purposes under the ESA. First, Plaintiffs contend that both Oliver and DiSibio have deep connections to the right whales and their preservation by way of their long-established ties to Nantucket. Pls. Mem. of Points and Authorities in Opp. to Cross-Motions; Pls. Reply in Supp. of Mot. for Summ. J. (“Pls. Opp.”) 11-13 [Doc. No. 105] (citing Oliver and DiSibio Decls.). Second, Plaintiffs point to the degrees of emotional distress each woman attests she would experience if any right whales were harmed or killed as a result of the Project. Pls. Opp. 12, 14-16 [Doc. No. 105]; Oliver Decl. ¶¶ 2-3 [Doc. No. 88-2]; Oliver Suppl. Decl. ¶¶ 8-9 [Doc. No. 108]; DiSibio Decl. ¶ 4 [Doc. No. 88-3]. Oliver contends that she has seen right whales in the past and that she has “concrete plans” to view them in the future. Oliver Suppl. Decl. ¶ 9 [Doc. No. 108]. DiSibio states recreational and aesthetic interest in the right whale. See DiSibio Decl. ¶ 4 [Doc. No. 88-3] (“My family and I enjoy whale watching off Nantucket”). Defendants, joined by Vineyard Wind, contend that Oliver and DiSibio do not provide specific facts to reflect that either has the “requisite environmental or aesthetic interest in right whales” because neither offers the kind of “concrete plans” required under Defenders of Wildlife, 504 U.S. at 565.

The citizen-suit provision of the ESA grants “any person” the authority to commence a civil suit in to enforce a violation of any provision of the ESA. 26 U.S.C. § 1540 (g)(1). This “authorization of remarkable breadth” abrogates the traditional prudential limitation that “a plaintiff’s grievance must arguably fall within the zone of interests protected or regulated by the statutory provision or constitutional guarantee invoked in the suit.” Bennett v. Spear, 520 U.S. 154, 162-164 (1997). Nonetheless, Article III of the Constitution requires that a party filing suit under the ESA state not only an injury-in-fact but that “the party seeking review be himself

among the injured.” Sierra Club v. Morton, 405 U.S. 727, 735 (1972). Plaintiffs must present more than “‘general averments’ and ‘conclusory allegations,’” Friends of the Earth, Inc., 528 U.S. at 168-69 (quoting Lujan v. Nat’l Wildlife Fed’n, 497 U.S. 871, 888 (1990)), or “‘some day intentions’ to visit endangered species halfway around the world,” Id. (quoting Defs. of Wildlife, 504 U.S. at 564).

*1. Plaintiff Vallorie Oliver’s Claimed Injuries-in-Fact*

Certain of Oliver’s claimed injuries are more concrete than others. First, Oliver’s strong ties to Nantucket and the ecosystem are not, in and of themselves, sufficient. Proximity does not equate to injury. See Nat’l Wildlife Fed’n, 497 U.S. at 887 (holding that an alleged injury was insufficient to establish standing where the plaintiffs did not use land in the area affected by the challenged activity but instead only roughly “in the vicinity” of the affected land).

Likewise, Oliver’s anticipated ecological grief is insufficient. See Humane Soc. of United States v. Babbitt, 46 F.3d 93, 98-99 (D.C. Cir. 1995) (collecting cases). “[G]eneral emotional harm, no matter how deeply felt, cannot suffice for injury-in-fact for standing purposes.” Id.; see also Strahan v. Sec’y, Mass. Exec. Office of Energy & Env’tl. Affairs, 2021 WL 9038570, at \*8 (D. Mass. Nov. 30, 2021) (“injury-in-fact may not be established by [Plaintiffs’] ‘sincere and passionate interest in the well-being of the whales alone.’”). Even if emotional distress were sufficient, Oliver’s statements are too speculative. Oliver states that *if* right whales are killed or injured through vessel-related strikes or other means related to the Project the news of this loss would be “psychologically devastating” and she would suffer “ecological grief.” Oliver Suppl. Decl. ¶¶ 8-9 [Doc. No. 108]. Defendants rightly describe this as a “contingent future mental health injury” for which she offers no support. See Fed. Defs. Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 9 [Doc. No. 113]. The risk of this injury is dependent on the

occurrence of a future event –the death or serious injury of North Atlantic right whales *because* of the Project—and is contradicted by evidence in the Administrative Record that the Project is unlikely to cause the death of any right whale. See, e.g., 2021 BiOp, BOEM\_0077276 at -7657.

Oliver’s final stated interest, that she has seen right whales in the past and has “concrete plans” to observe them in the future, is marginally sufficient. Defendants and Vineyard Wind contend that more is required under Defenders of Wildlife. Fed. Defs. Reply 3-5 [Doc. No. 114]; Vineyard Wind Reply in Support of Its Mot. for Summ. J. (“Vineyard Wind Reply”) 2-3 [Doc. No. 115]. While Defendants and Vineyard Wind are correct that Defenders of Wildlife required more than “‘some day’ intentions,” they overlook the context and limits of that holding.

In Defenders of Wildlife, the plaintiff organization challenged the decision by two agencies to limit ESA Section 7(a)(2) consultation to actions taken in the United States or on the high seas, contending that their members would be harmed by the risk to endangered and threatened species abroad. 504 U.S. at 558-559. To support standing, two members put forth affidavits professing their intent to return to foreign countries to observe threatened species. Id. One member put forth an affidavit stating she “intend[s] to return to Sri Lanka,” but when subsequently deposed, she stated that she had no current plans to return, adding that “[t]here is a civil war going on right now. I don’t know. Not next year, I will say. In the future.” Id. at 563-4 (quoting deposition testimony). It is in this context that the Court rejected “affiants’ profession of an intent to return to places they had visited before –where they will presumably, this time, be deprived of the opportunity to observe animals of the endangered species,” holding that “[s]uch ‘some day’ intentions” are “simply not enough.” Id. at 564.

Unlike Defenders of Wildlife, there are no speculative statements about trips to far-flung destinations here. Instead, it is undisputed that Oliver lives on Nantucket Island, in the vicinity of

coastal waters that right whales frequent. See Joint SOF ¶ 3 [Doc. No. 118]. It is also undisputed that Oliver has seen right whales in the past. See Fed. Defs. Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 4 [Doc. No. 113]; Vineyard Wind Resp. to Pls. Suppl. Separate Statement of Undisputed Facts ¶ 4 [Doc. No. 116]. And where Defendants did not offer deposition testimony or any other evidence to counter Oliver’s assertion, the court finds Oliver’s un rebutted statement that she has “concrete plans to observe right whales in the waters around Nantucket in the future,” Oliver Suppl. Decl. ¶ 4 [Doc. No. 108], a sufficiently “concrete and particularized” legally protected interest to establish an injury-in-fact.

Oliver has thus put forth sufficient facts to establish injury for purposes of summary judgment. No party challenges causation or redressability. Therefore, Defendants and Vineyard Wind’s standing challenges to Oliver’s ESA claims fail.

## 2. *Plaintiff ACK RATs*

Because Oliver has put forth sufficient facts to establish injury for purposes of summary judgment and was a member of ACK RATs at the time the suit was filed, ACK RATs has also established such injury for purposes of summary judgment. See Friends of the Earth, Inc., 528 U.S. at 168-69. It is undisputed that the interests at stake are germane to ACK RATs’ purpose. Friends of the Earth, Inc., 528 U.S. at 168-69. Moreover, neither the claims asserted, nor the relief requested require the participation of individual members. Id. Accordingly, Defendants’ and Vineyard Wind’s standing challenge on summary judgment as to ACK RATs’ ESA claims fail.<sup>8</sup>

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<sup>8</sup> The court’s finding does not rely on Amy DiSibio’s Declaration where DiSibio did not establish that she was a member of ACK RATs on the date this action was initiated. As a result, her statements do not change the standing analysis. See LA Alliance for Human Rights v. County of Los Angeles, 14 F.4th 947, 959 n.9 (9th Cir. 2021) (rejecting Plaintiffs’ attempt to



### C. National Environmental Policy Act Claims

Plaintiffs assert that they have also established Plaintiffs' injury-in-fact as to the NEPA claims. Pls. Mem. and Points of Authorities in Supp. of Mot. for Summ. J. ("Pls. Mem.") 12 [Doc. No. 89]; Pls. Opp. 17-21 [Doc. No. 105]. Defendants maintain that Plaintiffs cannot establish a concrete injury, let alone a procedural injury, and thus lack standing for any of their claims. See Fed. Defs. Reply 2-5 [Doc. No. 114]. Vineyard Wind argues further that Plaintiffs' evidence as to standing for the NEPA claims fails where Plaintiffs offered no expert testimony or other similar supporting evidence as to air quality impacts. Vineyard Wind Mem. in Supp. of Summ. J. ("Vineyard Wind Opening Mem.") 3-6 [Doc. No. 100]; Vineyard Wind Reply 3-6 [Doc. No. 115].

NEPA "does not mandate particular results, but simply prescribes the necessary process." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989). Where a plaintiff seeks "to enforce a procedural requirement the disregard of which could impair a separate concrete interest of theirs," the plaintiff can establish standing "without meeting all the normal standard for redressability and immediacy." Defs. of Wildlife, 504 U.S. at 572 & n.7. But this less demanding showing for redressability and immediacy does not relieve the plaintiff of the requirement to demonstrate an injury-in-fact. AVX Corp., 962 F.3d at 119. Plaintiffs must "show that 'the government act performed without the procedure in question [here, sufficient NEPA review] will cause a distinct risk to a particularized interest of the plaintiff.'" Town of Winthrop v. F.A.A., 535 F.3d 1, 6 (1st Cir. 2008) (quoting City of Dania Beach v. F.A.A., 485 F.3d 1181, 1185 (D.C. Cir. 2007)) (brackets in original). "[P]rocedural standing requirements may be

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remedy a standing defect where it had not alleged that supplemental declarations were offered by members who had joined the plaintiff organization prior to date the suit was filed).

satisfied so long as ‘the plaintiff’s interests are [not] so marginally related to or inconsistent with the purposes implicit in the statute that it cannot reasonably be assumed that Congress intended to permit the suit.’” Nulankeyutmonen Nkihtaqmikon v. Impson, 503 F.3d 18, 30 (1st Cir. 2007) (quoting Dennis v. Higgins, 498 U.S. 439, 461 (1991)).

*1. Plaintiffs’ NEPA Claim as to the Right Whales*

Where Plaintiffs have alleged a sufficient injury-in-fact as to maintain their ESA claims, that injury-in-fact is sufficiently particularized to maintain Plaintiffs’ NEPA claims concerning right whales. For NEPA standing, Plaintiffs need only demonstrate a particularized injury-in-fact that is not “so marginally related to or inconsistent with” NEPA that it cannot be assumed that Congress intended to permit Plaintiffs’ lawsuit. Here, Plaintiffs have a particularized interest in right whales, which is not so marginally related to NEPA review of the Vineyard Wind Project as to preclude standing.

Accordingly, Defendants and Vineyard Wind’s standing challenges to Plaintiffs’ NEPA claim regarding right whales fail.

*2. Plaintiffs’ NEPA Claim as to Air Quality/Emissions Concerns*

Vineyard Wind contends that Plaintiffs have provided insufficient evidence to demonstrate a concrete injury with respect to the Project’s potential air emissions or contributions to greenhouse gases, Vineyard Wind Opening Mem. 4-5 [Doc. No. 100], pointing to Plaintiffs’ lack of expert testimony regarding air quality, as well as the ultimate conclusions of the Final EIS, which reflect that the air quality impacts of the Project are (1) not anticipated to impact Nantucket residents, (2) are likely to be “negligible to minor” and “minor to beneficial,” and (3) the anticipated impacts are not expected to exceed the applicable National Ambient Air Quality Standards. Id. at 5-6; see also Joint SOF ¶¶ 162-164 [Doc. No. 118].

Plaintiffs respond that Vineyard Wind has set the bar for standing under NEPA claims too high, pointing to Hall v. Norton, 266 F.3d 969 (9th Cir. 2001), as instructive of their burden. Pls. Opp. 18-19 [Doc. No. 105]. In Hall, the plaintiff, a resident of Las Vegas, Nevada, brought NEPA and Clean Air Act claims against the U.S. Bureau of Land Management over its decision to exchange land with a private developer after estimating that the proposed development in the Law Vegas Valley would generate increased emissions in an area already not in attainment with federal air-quality standards. Id. The Ninth Circuit reversed the district court's grant of summary judgment to the government on the grounds that Hall had averred his existing respiratory issues would be aggravated by emissions from the development and held that "evidence of a credible threat to plaintiff's physical well-being from airborne pollutants falls well within the range of injuries to cognizable interests that may confer standing." Id. at 976. As Plaintiffs point out, the Ninth Circuit concluded that "Hall need not establish causation with the degree of certainty that would be required of him to succeed on the merits, say, of a tort claim." Pls. Opp. 19 [Doc. No. 105] (quoting Hall, 266 F.3d at 977).

But while Plaintiffs may only need to establish the "reasonable probability" of the challenged action's threat to his concrete interest," id. (citing Hall, 266 F.3d at 977), such evidence is absent here. Plaintiffs contend that the Project will emit air pollutants, which are harmful to human health. Pls. Opp. 21 [Doc. No. 105]. Oliver states generalized concerns for her respiratory health, and the health of the entire region, from the Project's potential air quality impacts. Oliver Suppl. Decl. ¶ 12 [Doc. No. 108]. She likewise states a generalized concern about the Project's potential to increase greenhouse gas emissions and contribute to the effects of climate change. Id. at ¶ 13. However, Oliver does not point to any evidence to suggest the risk to her will increase, even marginally. Generalized concerns regarding harm to the environment

alone are insufficient to confer standing. See Summers v. Earth Island Institute, 555 U.S. 488, 494 (2009); see also Ctr. for Bio. Div. v. U.S. Dep’t of Interior, 563 F.3d 466, 478 (D.C. Cir. 2009) (“climate change is a harm that is shared by humanity at large”). As Vineyard Wind points out, the Record reflects that the air quality impacts for the Project are “negligible to minor and minor beneficial” and that emissions will not impact Nantucket onshore. Joint SOF ¶¶ 162-166 [Doc. No. 118]. As a result, Oliver cannot establish standing as to the NEPA air quality and greenhouse gas claims. Absent standing for any one member, ACK RATs cannot establish associational standing. See AVX Corp., 962 F.2d at 116.

Thus, the court does not have jurisdiction to consider Plaintiffs’ NEPA air quality and emission claims.<sup>9</sup>

## **VI. Discussion**

### **A. Applicable Law**

#### *1. Administrative Procedure Act*

A summary judgment motion has a “special twist in the administrative law context.” Boston Redevelopment Auth. v. Nat. Park Serv., 838 F.3d 42, 47 (1st Cir. 2016) (quotations omitted). In an APA action, a motion for summary judgment serves as “a vehicle to tee up a case for judicial review and, thus, an inquiring court must review an agency action not to determine whether a dispute of fact remains but, rather, to determine whether the agency action was arbitrary and capricious.” Id. (citing cases); see also 5 U.S.C. § 706(2)(A) (“The reviewing court

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<sup>9</sup> Because Plaintiffs do not have standing to bring these claims, the court does not address Vineyard Wind’s argument that Plaintiffs’ air quality-related NEPA claims are barred by the doctrine of administrative waiver. See Vineyard Wind Opening Mem. 22-23 [Doc. No. 100].

shall...hold unlawful and set aside agency action...found to be...arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law[.]”).

Because the APA affords great deference to agency decision-making and agency actions are presumed valid, “judicial review [under the APA], even at the summary judgment stage, is narrow.” Assoc’d Fisheries of Maine, Inc. v. Daley, 127 F.3d 104, 109 (1st Cir. 1997) (citing Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 415-16 (1971)). Courts should “uphold an agency determination if it is ‘supported by any rational view of the record.’” Marasco & Nesselbush, LLP v. Collins, 6 F.4th 150, 172 (1st Cir. 2021) (quoting Atieh v. Riordan, 797 F.3d 135, 138 (1st Cir. 2015)). Even where an inquiring court disagrees with the agency’s conclusions, the court cannot “‘substitute its judgment for that of the agency.’” Boston Redevelopment Auth., 838 F.3d at 47 (quoting Assoc’d Fisheries, 127 F.3d at 109). Rather, an agency’s action should only be vacated where it “has relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” Nat’l Ass’n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 658 (2007) (quotations omitted).

## 2. *Endangered Species Act*

Section 7(a)(2) of the Endangered Species Act commands that “[e]ach Federal agency shall...insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species[.]” 16 U.S.C. § 1536(a)(2).

“This substantive requirement is backed up by a scheme of procedural requirements that set up a

consultation process between the agency...and [NMFS]...to determine whether endangered species or critical habitat are jeopardized by proposed agency action and whether this adverse impact may be avoided or minimized.” Water Keeper Alliance v. U.S. Dep’t of Def., 271 F.3d 21, 25 (1st Cir. 2017); see also 16 U.S.C. § 1536; 50 C.F.R. § 402.14. NMFS is required to utilize the “best scientific and commercial data available” in rendering its biological opinion. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(d).

Section 9 of the ESA prohibits the “take” of any endangered or threatened species. 16 U.S.C. § 1538(a). Under the ESA, the term “take” means to harass, hunt, shoot, capture, trap, kill, collect, wound, harm, or pursue, or attempt any such activities. 16 U.S.C. § 1532(19). Despite this prohibition, taking may be permitted where it is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” 16 U.S.C. § 1539(a)(1)(B). Incidental take can be exempted from liability as part of the consultation process. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(g)(7), (i). Where NMFS’ biological opinion concludes that it will result in “incidental take” of ESA listed species, and that such take will not violate ESA Section 7(a)(2), the biological opinion must include a written statement that (i) specifies the impact of such incidental take on the species; (ii) specifies the reasonable and prudent measures necessary or appropriate to minimize the impact of said take; (iii) specifies those measures necessary to comply with the MMPA and applicable regulations; and (iv) sets forth terms and conditions that must be complied with by the agency and/or applicant to implement (ii) and (iii). 16 U.S.C. § 1536(b)(4).

### 3. *National Environmental Policy Act*

NEPA obligates federal agencies to “consider every significant aspect of the environmental impact of a proposed action...[and] ensures that the agency will inform the public

that it has indeed considered environmental concerns in its decisionmaking process.” United States v. Coalition for Buzzards Bay, 644 F.3d 26, 31 (1st Cir. 2011) (quotations omitted).

NEPA requires that any agency considering action that would have a significant impact on the environment prepare an EIS, that contains a “detailed statement” regarding the environmental impacts of the proposed action and all reasonable alternatives. Dubois v. Dep’t of Agriculture, 102 F.3d 1273, 1285 (1st Cir. 1996); 42 U.S.C. § 4332. NEPA “does not mandate particular results, but simply prescribes the necessary process.” Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989); see also Winter v. Nat. Resources Def. Council, Inc., 555 U.S. 7 (2008). “So long as the environmental effects of a proposed action have been adequately identified and studied, the agency is free to weigh those effects and decide—within the limits fixed by the APA—that other values overbalance environmental costs.” Coalition for Buzzards Bay, 644 F.3d at 31 (citing Robertson, 490 U.S. at 350).

#### **B. Notice/Waiver<sup>10</sup>**

Defendants and Vineyard Wind contend Plaintiffs failed to provide Defendants with adequate notice as to their objections to BOEM and NMFS: (i) approving soft-start pile driving procedures that would cause right whales to flee the Project Area into vessel traffic (Pls. Mem. 22-23 [Doc. No. 89]); (ii) failing to consider the potential biological removal threshold (“PBR”) for right whales in the 2021 BiOp (Pls. Mem. 22-23 [Doc. No. 89]); (iii) approving override

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<sup>10</sup> Defendants and Vineyard Wind contend, and Plaintiffs do not dispute, that certain allegations in Plaintiffs’ Amended Complaint are waived for failure to raise them in summary judgment briefing. See Fed. Defs. Opening Mem. 50, n.37 [Doc. No. 96]; Vineyard Wind Opening Mem. 24 [100]. Specifically, Plaintiffs do not discuss any ESA-listed species other than the right whale (Am. Compl. ¶¶ 72, 76 [Doc. No. 59]), nor do they raise arguments concerning the Incidental Take Statement (id. ¶ 73), or the Joint ROD (id. ¶ 69). These claims have been waived, and summary judgment is granted to Defendants and Vineyard Wind as to these issues.

procedures that would permit the Vineyard Wind lead engineer to override shutdown directives and continue pile driving if necessary for safety or for the integrity of the pile driving installation; (Pls. Mem. 30-31 [Doc. No. 89]); (iv) approving pile driving “clearance zones” that do not cover the entirety of the potential Level A harassment noise impact area (Pls. Opp. 25-26 [Doc. No. 105]); and (v) approving a passive acoustic monitoring detection limit that does not cover the entirety of the potential Level A harassment noise impact area (Pls. Mem 32 [Doc. No. 89]; Pls. Opp. 25-26 [Doc. No. 105]). See Fed. Defs. Opening Mem. 9-10 [Doc. No. 96]; Vineyard Wind Opening Mem. 7 [Doc. No. 100].

Under Section 11(g)(2)(A)(i) of the ESA, citizens seeking to sue the government for violations of the ESA are first required to submit a written notice of the alleged violation(s), and then must wait at least sixty days from submitting the notice before filing commencing a civil suit. 16 U.S.C. § 1540(g)(2)(A)(i). The notice must “at a minimum, provide sufficient information of a violation so that the Secretary or agency can identify and attempt to abate the violation.” Ctr. for Bio. Div. v. Haaland, 2023 WL 2401662, at \*6-\*7 (D.C. Cir. Mar. 8, 2023) (quotations and brackets omitted). The court addresses the sufficiency of Plaintiffs’ notice as to each of these issues in turn.<sup>11</sup>

i. Soft Start Pile Driving Procedures

Plaintiffs’ 60-Day Letter states:

The BiOp fails to assess vessel strike risk to right whales and other federally-listed species in the context of the already-crowded shipping lanes in or near

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<sup>11</sup> Plaintiffs asserted in briefing that they do not need to satisfy the 60-Day notice requirement for their 2021 BiOp claims (against NMFS), because the claims arise under the APA, not the ESA. Pls. Opp. 22 [Doc. No. 105] (citing Strahan v. Linnon, 967 F. Supp. 581, 592 (D. Mass. 1997)). At the summary judgment hearing, however, Plaintiffs’ counsel waived that argument. Jan. 24, 2023 Tr. 23:15-24:8, 32:16-33:10.



the Project Area. In addition, the BiOp assumes that right whales and other federally-listed species will move out of the Project Area as an “avoidance response” to pile driving noise; however, if this is true, these animals, in their efforts to swim away from the pile driving noise, will likely enter areas of high vessel traffic, increasing the risk of ship strikes. This impact is not analyzed in the BiOp.

60-Day Intent to Sue Letter, Comment 36 [Doc. No. 96-3]. While the Letter does not mention the use of soft-start procedures in particular, Plaintiffs’ articulated concern—that pile driving noise will provoke an avoidance response and cause right whales to enter high-traffic areas, thus increasing the risk of vessel strikes—applies to both soft-start and other pile driving activity. The 60-Day Letter adequately apprised Defendants of that concern.

ii. PBR

PBR is a metric from the MMPA for the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. 16 U.S.C. § 1362(20). As the parties concede, neither the 2021 BiOp nor Plaintiffs’ 60-Day Letters uses the term “PBR.” See Jan. 24, 2023 Tr. 27:12-15. However, the 60-Day Letter states:

The BiOp’s no jeopardy determination fails to account for recent sharp declines in right whale populations. It also fails to account for the extremely low abundance number for the species, which is now less than 350 individuals. Given the low number of right whales and the consistent loss of calf-bearing females, the BiOp should analyze and explain how project-related take of any individual could be absorbed without jeopardizing the species as a whole. BiOp, however, provides no such analysis or explanation and is therefore deficient as a matter of law.

60-Day Letter, Comment 28 [Doc. No. 96-3]; Pls. Opp. 24 [Doc. No. 105].

To the extent Plaintiffs claim that the 2021 BiOp needed to discuss the threat the Project poses to the declining right whale populations, Plaintiffs have provided adequate notice. To the extent Plaintiffs claim that the 2021 BiOp needed to expressly address the specific PBR, that claim is waived.

iii. Override Procedures

Plaintiffs' 60-Day Letter provides two comments regarding the "feasibility" and "practicability" exceptions to the pile driving limitations imposed by BOEM and NMFS.

Plaintiffs claim that under these exceptions:

Vineyard Wind can continue pile driving even in the presence of right whales or other listed species if halting the pile driving work is not feasible [or practicable]. Th[ese] exception[s] makes the pile driving protections and limitations meaningless, as it gives Vineyard Wind complete discretion as to when and under what circumstances they can be disregarded.

See 60-Day Letter, Comments 13, 14 [Doc. No. 96-3]; Pls. Opp. 24-25 [Doc. No. 105]. In both instances, these comments adequately apprised Defendants of Plaintiffs' concern that Vineyard Wind's ability to override certain protections by way of their discretion makes these limitations meaningless. Accordingly, Plaintiffs provided adequate notice as to their claims regarding the override procedures.

iv. Clearance Zones & PAM Detection Limits

Plaintiffs point to a single comment in their 60-Day Letter as putting Defendants on notice as to concerns regarding the size and sufficiency of the pile driving clearance zones and the limitations of PAM. Specifically, the 60-Day Letter states:

The BiOp improperly accepts Vineyard Wind's position that the project will result in no Level A harassment of right whales. That position is based on the unproven and unsubstantiated efficiency of Vineyard Wind's proposed "detect & avoid" measures – the very same measures that include a host of exceptions, qualifications, and loopholes.

60-Day Letter, Comment 38 [Doc. No. 96-3]; Pls. Opp. 25-26 [Doc. No. 105]. While it may not be necessary for Plaintiffs to mention PAM or clearance zones specifically, Comment 38 is far too generalized to put Defendants on notice as to concerns about whether the size of the area from which right whales should be excluded is sufficient such that Defendants can identify and attempt to abate the concerns. See Ctr. for Bio. Div., 2023 WL 2401662 at \*6-\*7. Accordingly,

Plaintiffs have waived claims regarding the sufficiency and size of the clearance zones and the limitations on PAM detection for failure to provide notice to Defendants.

### **C. Merits of the Noticed Claims**

The court now turns to the merits of the claims for which Plaintiffs provided proper notice, specifically: (i) whether in issuing the 2021 BiOp, NMFS acted arbitrarily, capriciously, and unlawfully by failing to adequately consider the Project's impact on North Atlantic right whales and instead concluding the Project would not jeopardize the species in violation of ESA Section (7)(a)(2); (ii) whether NMFS and BOEM violated and continue to violate Section 7(a)(2) of the ESA by failing to ensure through consultation that BOEM's approval of impacts of the Project will not jeopardize the right whale; and (iii) whether BOEM violated NEPA by failing to take the requisite "hard look" at the environmental consequences to the right whales, instead issuing a Final EIS that reflected many of the same claimed procedural and substantive defects as the 2021 BiOp. Because Plaintiffs' sole surviving claim under NEPA is that the Final EIS "parrots the flawed analysis and conclusions set forth in the BiOp," the court considers Plaintiffs' ESA and NEPA claims together.

#### *1. 2021 BiOp: Best Scientific and Commercial Data Available*

Plaintiffs argue that the 2021 BiOp is flawed because it fails to engage with the "best scientific and commercial data available," as required under the ESA, and that, as a result NMFS and BOEM have violated the ESA by promulgating and relying on the 2021 BiOp. Pls. Mem. 14 [Doc. No. 89] (citing 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8)). Plaintiffs point to five

studies<sup>12</sup> which they contend the 2021 BiOp either does not adequately engage with or does not address at all:

1. Quintana-Rizzo, et al., “Residency, demographics, and movement patterns of North Atlantic right whales *Eubalaena glacialis* in an offshore wind energy development area in southern New England, USA” *Endangered Species Research*, Vol. 45: 251-268 (2021) (“Quintana-Rizzo”). NMFS 53318-35; Joint Appendix, JA012307-325 [Doc No. 117-27].
2. A. Key Outcomes Memorandum dated October 4, 2019 regarding an April 23-26, 2019 Atlantic Large Whale Take Reduction Team Meeting convened by NMFS (“2019 Key Outcomes Memorandum”). BOEM\_0194534-48; Joint Appendix, JA008867-881 [Doc. No. 117-24].
3. The North Atlantic Right Whale Consortium 2020 Annual Report Card. (“2020 Report Card”). BOEM\_0208677-98, Joint Appendix, JA009302-23 [Doc. No. 117-25].
4. NOAA Technical Memorandum NMFS-NE-271, The US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2020 (“2020 Stock Assessment”).<sup>13</sup>
5. Stober, U, Thomsen F. 2021. How could operational underwater sound from future offshore wind turbines impact marine life? *J. ACOUST. SOC. AM.* 2021 Mar; 149(3) (“Stober”). NMFS 57131-36; Joint Appendix, JA012446-51 [Doc. No. 117-27].

Pls. Mem. 17-24 [Doc. No. 89]. Plaintiffs argue that, in failing to rely on these studies as the “best scientific and commercial data available”, the 2021 BiOp’s conclusions are flawed, and that, in issuing and relying on a legally deficient BiOp, NMFS and BOEM acted arbitrary and

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<sup>12</sup> In connection with their Opposition [Doc. No. 105], Plaintiffs offer a sixth study, Barkaszi, M. et al., PAMGuard Quality Assurance Module for Marine Mammal Detection Using Passive Acoustic Monitoring (August 2020). See Decl. of David Hubbard [Doc. No. 109]. The court construes this submission as a motion to supplement the record, which is denied as untimely. See Scheduling Order [Doc. No. 58] (“Any motions related to disputes about the administrative record... must be filed no more than 30 days after service of the administrative record.”). The court does not reach Defendants’ substantive critiques of Barkaszi where it is not part of the Record.

<sup>13</sup> Although referenced in the 2021 BiOp, the court was unable to locate this document in the AR or the Joint Appendix. The document is available at <https://media.fisheries.noaa.gov/2021-07/Atlantic%202020%20SARs%20Final.pdf?null%09>, last accessed May 12, 2023.

capriciously in violation of the ESA. See Pls. Mem. 5-6, 17-24 [Doc. No. 89]. Defendants contend that the 2021 BiOp considered the best available scientific and commercial information available, and that, in each instance, NMFS either did consider the offered materials or was not required to do so. Fed. Defs. Opening Mem. 12-22 [Doc. No. 96]; see also Vineyard Wind Opening Mem. 9-10 [Doc. No. 100].

As part of the consultation process under the ESA, “each agency shall use the best scientific and commercial data available.” 16 U.S.C. § 1536(a)(2). The ESA’s regulations direct:

In formulating its biological opinion, any reasonable and prudent alternatives, and any reasonable and prudent measures, the Service will use the best scientific and commercial data available and will give appropriate consideration to any beneficial actions as proposed or taken by the Federal agency or applicant, including any actions taken prior to the initiation of consultation. Measures included in the proposed action or a reasonable and prudent alternative that are intended to avoid, minimize, or offset the effects of an action are considered like other portions of the action and do not require any additional demonstration of binding plans.

50 C.F.R. § 402.14(g)(8)). Neither the ESA nor its implementing regulations provide direction as to what constitutes the “best scientific and commercial data available.” Rather, determining which studies and data are the “best available” is “itself a scientific determination deserving deference.” See Miccosukee Tribe of Indians of Florida v. United States, 566 F.3d 1257, 1265 (11th Cir. 2009) (citing March v. Or. Natural Res. Council, 490 U.S. 360, 377-78 (1989)); see also Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, 462 U.S. 87, 103 (1983) (a reviewing court should “generally be at its most deferential” where an agency “is making predictions, within its area of special expertise, at the frontiers of science[.]”). “The obvious purpose of the requirement...is to ensure that the ESA not be implemented haphazardly, on the basis of speculation or surmise.” Bennett v. Spear, 520 U.S. 154, 176 (1997).

In light of the Record before the court and the deference accorded to NMFS in determining what constitutes the “best scientific and commercial data available,” the court finds

Plaintiffs' arguments unpersuasive. First, NMFS did "use" certain of these studies in the 2021 BiOp. As to Quintana-Rizzo, Plaintiffs are incorrect that the 2021 BiOp does not "engage" with the study. Plaintiffs acknowledge as much in the Joint Statement of Undisputed Facts. Joint SOF ¶ 118 [Doc. No. 118] ("The BiOp cites to and recognized the findings of Quintana-Rizzo et al. (2021), which indicated, among other things, that the North Atlantic right whale presence within the Project Area remains seasonal[.]"). NMFS considered whether Quintana-Rizzo would change the conclusions it reached in the 2020 BiOp, and it did not. Fed. Defs. Reply. 13 n.12 [Doc. No. 114]. Similarly, the 2020 Annual Report Card was considered in the 2021 BiOp. See 2021 BiOp, BOEM\_0077276 at -7330-31 (discussing calving rates for right whales from 2006 to 2017 and 2019-2020). Plaintiffs disagree with NMFS's conclusions after review of the data, but the court may not second-guess NMFS's considered determinations. Boston Redevelopment Auth., 838 F.3d at 47; see also Blue Water Fishermen's Ass'n v. Nat. Marine Fish. Serv., 226 F. Supp. 2d 330, 338 (D. Mass. 2002) ("This [c]ourt therefore may not champion a competing interpretation of the data over an agency's conclusion that finds support in the record.").

Second, NMFS considered certain of these studies and effectively concluded that they were not the "best available." For instance, as Vineyard Wind points out, the 2021 BiOp reflects that NMFS examined Stober's conclusions regarding underwater operational noise levels, and after evaluating it, NMFS concluded that the study was less reliable and that an alternative study was superior. See Vineyard Wind Opening Mem. 9-10 [Doc. No. 100]; 2021 BiOp, BOEM\_0077276 at -7432 ("Without information on soundscape, water depth, sediment type, wind speed, and other factors, it is not possible to determine the reliability of any predictions from the Stober and Thomsen paper to the Vineyard Wind project."). "Thus, in reviewing and rejecting [a contrary] position, NMFS did not ignore the best available data. Rather it considered

and disagreed with [the contrary] interpretation of the data.” Blue Water Fishermen’s Ass’n, 226 F. Supp. 2d at 339. Plaintiffs contend that the 2021 BiOp’s rejection of Stober is unsupported, but Plaintiffs’ bare contention cannot overcome the deference accorded to NMFS in making such determinations. Finally, Plaintiffs’ passing argument that, in discounting Stober, NMFS failed to “give the benefit of the doubt to the species,” Pls. Opp. 39 [Doc. No. 105] (quoting Conner v. Burford, 848 F.2d 1441, 1454 (9th Cir. 1988)), is inapplicable. Unlike in Conner, NMFS did not ignore the available data.

Plaintiffs are likewise incorrect that the 2020 BiOp did not consider the 2020 Stock Assessment. Plaintiffs contend that NMFS’s omission of this study is critical because of the study’s discussion of the right whale PBR, Pls. Mem. 22-23 [Doc. No. 89], but as discussed supra, Plaintiffs have waived any argument concerning discussion of the PBR specifically. The court agrees with Defendants that the Record reflects NMFS did consider the right whale’s survival rate, even if it did not discuss PBR specifically. See Fed. Defs. Opening Mem. 18 [Doc. No. 96]. The 2021 BiOp states:

[d]ue to the declining status of North Atlantic right whales, the resilience of this population to stressors that would impact the distribution, abundance, and reproductive potential of the population is low. The species faces a high risk of extinction...ongoing effects in the action area (e.g. global climate change, decreased prey abundance, vessel strikes, and entanglements in U.S. state and federal fisheries) have contributed to concern for the species’ persistence.

2021 BiOp, BOEM\_0077276 at -7627.<sup>14</sup> Second, although the 2021 BiOp does not rely on the 2020 Stock Assessment, the court defers to NMFS’s conclusion that, because the information

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<sup>14</sup> Plaintiffs’ argument additionally fails where, as the Defendants contend, NMFS and BOEM was not required to have addressed PBR in the context of the 2021 BiOp, because PBR is a concept from the Marine Mammal Protection Act (“MMPA”), not the ESA or NEPA, and NMFS/GAR considered PBR in the context of its issuance of the Incidental Harassment Authorization under the MMPA. See Fed. Defs. Opening Mem. 17 and n.17 [Doc. No. 96].

contained in the Stock Assessment was from 2018, it was appropriate for NMFS to rely on more recent scientific studies in order to comply with its requirement to use the “best scientific” information available. See Fed. Defs. Opening Mem. 17-18, n.18 [Doc. No. 96]; Fed. Defs. Reply 17-18 [Doc. No. 114] (citing 2021 BiOp, NMFS 17234).

Plaintiffs’ argument that NMFS’s failure to discuss the TRT Key Outcomes Memorandum in the 2021 BiOp amounts to a failure to consider the risks of entanglement, Pls. Opp. 21-22 [Doc. No. 105], is also unavailing. To the contrary, the 2021 BiOp contains extensive discussion of the entanglement risk and reflects that NMFS “reviewed the most recent data available on reported entanglements for the ESA listed whale stocks that occur in the action area.” 2021 BiOp, BOEM\_0077276 at -7411 (citing, as to right whales, the 2020 and 2021 Stock Assessments). Further, to the extent NMFS determined that it need not consider the TRT Key Outcomes Memorandum, that determination is entitled to deference, particularly where the Memorandum was the outcome of a meeting NMFS convened and reflects recommendations that “NMFS intends to use...to guide rulemaking starting in May 2019,” TRT Key Outcomes Memorandum, BOEM\_0194534, reflecting that NMFS was engaged in discussions, strategy, and rulemaking that considered the risk of entanglement well before it issued the 2020 or 2021 BiOp. See also Fed. Defs. Opening Mem. 16 [Doc No. 96] (citing Dist. 4 Lodge of the Int’l Ass’n of Machinists and Aerospace Workers Local Lodge 2017 v. Raimondo, 40 F.4th 36, 41 (1st Cir. 2022) (considering challenge to NMFS’s regulations prohibiting vertical buoy lines in certain areas to protect right whales)). The concern that NMFS is operating “on the basis of speculation or surmise” is not present here.



Accordingly, Plaintiffs have not shown that NMFS and BOEM violated the ESA by failing to rely on the “best scientific and commercial data available” during the consultation process.

2. *2021 BiOp & Final EIS: Assessment of the Risk of Project-Related Vessel Strikes*

Plaintiffs contend that both the 2021 BiOp and Final EIS fail to adequately consider the risk of Project-related vessel strikes of right whales. First, Plaintiffs contend that neither document contains “key” information concerning vessel traffic, specifically, how many Project-related vessels may travel at speeds exceeding the 10 knots per hour limit intended to prevent lethal strikes and the total miles that Project-related vessels may travel. Pls. Mem. 35, 47 [Doc. No. 89]. Second, Plaintiffs contend that neither document considers that pile driving procedures, soft-start and otherwise, will prompt right whales to flee into areas of heavy vessel traffic, increasing their risk of injury or death. *Id.* at 36, 46. Finally, Plaintiffs contend that the risk of vessel strikes is not adequately assessed where the 2021 BiOp relies on mitigation procedures that are “unproven” and “facially ineffective,” such as the use of speed restrictions, PSOs and PAM. *Id.* at 36-38 (citing Nat’l Wildlife Fed’n v. Nat. Marine Fish. Serv., 184 F. Supp. 3d 861, 873 (D. Or. 2016)). Defendants respond that the 2021 BiOp, Final EIS, and IHA each contain detail concerning vessel traffic and Plaintiffs have not provided a basis for why the total miles Project vessels must travel is required over the data Defendants do provide, that the 2021 BiOp reasonably concluded that the Project is not likely to result in death or injury to right whales, including in response to soft-start procedures, and that the mitigation measures are designed to be considered as a complete set, not in isolation as Plaintiffs propose. Fed. Defs. Opening Mem. 31-33 [Doc. No. 96].

Plaintiffs have not offered any authority that Defendants' failure to consider or include one metric over another is either arbitrary or capricious or in violation of NEPA. Nor have they offered any evidence to support their speculative argument that right whales will flee *into* vessel traffic.<sup>15</sup> And where NMFS has considered the issue of vessel strikes and relied on available data, it is entitled to deference, even if that data is not conclusive. See Pac. Shores Subdiv. Cal. Water Dist. v. U.S. Army Corps of Eng'rs, 538 F. Supp. 2d 242, 250 (D.D.C. 2008).

As to Plaintiffs' attacks on the mitigation measures, the court reviews the suite of measures adopted by Defendants as a result of the 2021 BiOp process and not the measures in isolation where NMFS and BOEM based their conclusions concerning the risk of vessel strikes on the suite of measures as a whole. Specifically, the 2021 BiOp stated "measures that will be required of all project vessel operations will ensure that the opportunity for detection of any ESA-listed whale that could co-occur with a vessel's transit route will be maximized...Combined with the requirements for vessel speed restrictions, [NMFS] expect[s] that these measures will make it extremely unlikely that a project vessel will collide with a whale." 2021 BiOp, BOEM\_0077276 at -7527. Where the Record demonstrates that NMFS carefully considered this suite of factors, along with other preexisting rules, and came to a well-supported conclusion, the court concludes Plaintiffs' challenges as to some measures is

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<sup>15</sup> In their arguments concerning the risk of vessel-strikes and entanglement, Plaintiffs assert that "NMFS Statistical Area 537," the large geographic area within which the WDA is located, is particularly high risk for right whales. Pls. Opening Mem. 21-22, 33 [Doc. No. 89]; Pls. Opp. 32-33 [Doc. No. 105]. Defendants and Vineyard Wind contest Plaintiffs' theory and dispute several of Plaintiffs' factual assertions as unsupported by the Record. Fed. Defs. Opening Mem. 15 [Doc. No. 96]; Vineyard Wind Reply 8-9 [Doc. No. 115]. Where the court concludes that both NMFS and BOEM's consideration of the risks to right whales and decision to implement mitigation measures are entitled to deference, the court need not wade into the parties' dispute regarding the character of Area 537.

insufficient to deem the 2021 BiOp invalid. See Nat'l Ass'n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 658 (2007).

Similarly, Plaintiffs have not demonstrated that BOEM, in preparing the Final EIS, violated NEPA by failing to adequately consider the risk of vessel strikes. Rather, the environmental effects “were adequately identified and studied” and the agency acted “within the limits fixed by the APA.” Coalition for Buzzards Bay, 644 F.3d at 31. Accordingly, Plaintiffs’ claims concerning Defendants’ assessment of the risk of vessel strikes fails.

### 3. 2021 BiOp & Final EIS: Pile Driving Noise

Plaintiffs contend that neither the 2021 BiOp nor the Final EIS appropriately consider the level of harassment to which right whales will be exposed from pile driving during the construction of the Vineyard Wind Project. Pls. Mem. 29-35, 49 [Doc. No. 89].<sup>16</sup> In support of this claim, Plaintiffs reiterate that three mitigation measures: PSOs, PAM, and soft-start procedures, are inadequate insofar as they will not ensure right whales are clear of pile driving noise that may amount to Level A harassment. Id. Defendants contend that Plaintiffs’ concerns

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<sup>16</sup> Plaintiffs’ contention that the soft-start pile driving procedure is a prohibited, intentional take is without merit. Pls. Mem. 30 [Doc. No. 89]; Pls. Opp. 43-44 [Doc. No. 105]. NMFS regulations instruct that “[i]ncidental harassment, incidental taking and incidental, but not intentional, taking all mean an accidental taking. This does not mean that the taking is unexpected, but rather it includes those takings that are infrequent, unavoidable or accidental.” 50 C.F.R. § 216.103. Here, the 2021 BiOp reflects that any such take is expected to be infrequent and accidental. First, pile driving will only occur in conjunction with other mitigation measures designed to minimize the risk that right whales may be in the area. See supra, [Fact section]; see, e.g., 2021 BiOp, BOEM\_0077276 at -7461 (“the proposed requirement that pile driving can only commence when the full extent of all clearance zones are fully visible to PSOs will ensure a high marine mammal detection capability[.]”). Moreover, pile driving of any kind would not proceed in instances where a whale has been detected in the area. 2021 BiOp, BOEM\_0077276 at -7547. Therefore, the 2021 BiOp reflects that the procedure would only ever be used where a right whale has been undetected by the myriad of other mitigation measures implemented by Vineyard Wind and thus would be “accidental.” Incidental take is permitted under the MMPA. 16 U.S.C. § 1371(a)(5)(D)(i).

regarding pile driving noise were considered as part of public comment on the IHA process, and that Plaintiffs' critiques do not acknowledge the suite of mitigation measures to be implemented. Fed. Defs. Opening Mem. 27, 38 [Doc. No. 96]; Fed. Defs. Reply 28 [Doc. No. 114].

As to soft-start procedures, the 2021 BiOp expressly acknowledges that NMFS cannot predict the level or extent that this procedure may reduce right whale exposure to pile driving noise, and that, as a result "while the soft start is expected to reduce effects of pile driving we are not able to modify the estimated take numbers to account for any benefit provided by the soft start." 2021 BiOp, BOEM\_0077276 at -7458. Plaintiffs' contention that NMFS's assessment of pile driving noise was inadequate because its reliance on soft-start procedures fails where NMFS disclaimed any reliance on soft-start procedures in its conclusions about the anticipated level of take by harassment of right whales. Nor can Plaintiffs contend that BOEM or the Final EIS improperly relied on the 2021 BiOp's conclusions regarding the use of soft-start procedures where the use of the procedure has no impact on the 2021 BiOp's take assessment.

As with vessel strikes, Plaintiffs reiterate that PSOs and PAM are inadequate to prevent harm to right whales from pile driving noise. However, where NMFS and BOEM considered a suite of mitigation measures, Plaintiffs cannot challenge such procedures in a vacuum. Plaintiffs have not shown that NMFS's consideration of the suite of mitigation measures, or NMFS and BOEM's reliance on them, was arbitrary or capricious. See Nat'l Ass'n of Home Builders v. Defs. of Wildlife, 551 U.S. 644, 658 (2007). Accordingly, Plaintiffs' challenges to the 2021 BiOp and the Final EIS regarding its consideration of pile driving noise fail.

#### *4. 2021 BiOp and Final EIS: Assessment of Operational Noise*

Plaintiffs contend that the 2021 BiOp and Final EIS do not adequately address the impacts of the operational noise of the Vineyard Wind Project on right whales, relying

principally on Stober. Pls. Mem. 23-24, 38-39, 48-49 [Doc. No. 89]. Plaintiffs further argue that NMFS and BOEM do not know what the impact of the Project will be on right whales because a project of this size has never been completed or studied. Pls. Mem. 23 [Doc. No. 89]. In response, Defendants point to the 2021 BiOp and Final EIS as having adequately considered the risk of operational noise in their respective analysis. Fed. Defs. Opening Mem. 21, 48 [Doc. No. 96]; see also 2021 BiOp, BOEM\_0077276 at -7431; Final EIS Vol I, BOEM\_0068434 at -8599.

As discussed supra, NMFS considered Stober, and declined to follow it, instead adopting a more recent study on operational noise. Fed. Defs. Opening Mem. 33 [Doc. No. 96]. While Plaintiffs read the available data differently than NMFS, where NMFS's assessment of operational noise is supported by a rational view of the record, Plaintiffs have not shown a violation of the ESA. See Marasco & Nesselbush, LLP, 6 F.4th at 172. Similarly, Plaintiffs' disagreement with NMFS's analysis does not demonstrate that BOEM failed to conduct the analysis required under NEPA. See Lovgren v. Locke, 701 F.3d 5, 38 (1st Cir. 2012) ("That [Plaintiffs] disagree[] with this conclusion is not a basis for deeming it invalid."). Accordingly, Plaintiffs have not shown that Defendants failed to adequately consider operational noise in connection with the Project.

*5. 2021 BiOp and Final EIS: Increased Stress Due to Loss of Foraging Opportunities*

Plaintiffs contend that the 2021 BiOp does not adequately assess the extent to which Vineyard Wind's pile driving activities will reduce right whales' foraging opportunities. Pls. Mem. 40 [Doc. No. 89]. Similarly, Plaintiffs contend that the EIS does not adequately assess the quality of the foraging habitat in the light of the Project. Pls. Mem. 39, 48 [Doc. No. 89]. In both instances, Plaintiffs contend that "recent studies" show that the right whales' food source is changing, and will change further based on the Project, however, Plaintiffs' only support for this

argument is Quintana-Rizzo. As discussed supra, NMFS considered and relied on Quintana-Rizzo in its analysis of behavioral impacts of the Project and pile driving to right whales. BOEM\_0077461-62. Where Plaintiffs' argument as to both the 2021 BiOp and the Final EIS is premised on its disagreement about how the agencies have interpreted Quintana-Rizzo, that argument fails, both because of the deference accorded to the agency in determining how to use the best available data, supra, and because Plaintiffs' disagreement is not a basis to challenge the agency's actions as arbitrary and capricious or in violation of NEPA. See Marasco & Nesselbush, LLP, 6 F.4th at 172; see also Lovgren, 701 F.3d at 38.

*6. 2021 BiOp and Final EIS: Entanglement in Fishing Gear*

Plaintiffs contend that neither the 2021 BiOp nor the Final EIS adequately consider the risk of fishing gear entanglement posed by the Project, both directly, in the form of fisheries studies Vineyard Wind will be required to conduct, and indirectly, as soft-start procedures may drive right whales into areas of higher entanglement risk. Pls. Mem. 40-41, 47-48 [Doc. No. 89].

Plaintiffs' argument regarding the risk of entanglement stemming from soft-start procedures is speculative. As Defendants point out, the biological consultation process was reinitiated in May 2021 in part so that NMFS could consider the effects of the proposed fishery monitoring surveys, and NMFS concluded that the risk of entanglement from the survey is so small "it cannot be meaningfully measured." Fed. Defs. Opening Mem. 12 [Doc. No. 96]; 2021 BiOp, BOEM\_ BOEM\_0077276 at -7581 (discussing the "Impacts to Habitat" of the proposed marine resource survey and monitoring activities). Defendants also contend that the Final EIS specifically addresses any concerns regarding the risks of fisheries surveys, including by requiring the use of "weak-link technology to minimize whale entanglement" and seasonally restricting survey activity when right whales may be present. Fed. Defs. Opening Mem. 46 [Doc.

No. 96]; see also Final EIS Vol. II, BOEM\_0068786 at -9201. As with the other concerns raised by Plaintiffs, the Record reflects that BOEM and NMFS did consider these issues, and that Plaintiffs' critiques amount to disagreements with the agencies' conclusions that cannot serve as a basis for determining the agency action is invalid.

*7. 2021 BiOp and Final EIS: Cumulative Impacts*

Plaintiffs claim that the 2021 BiOp did not consider all of the stressors of the construction and operation of the Project “synergistically,” and that, as a result the 2021 BiOp’s “no jeopardy” determination as to the right whales is flawed. Pls. Mem. 42 [Doc. No. 89].<sup>17</sup> Similarly, they contend that the Final EIS did not look at the cumulative impacts of the Project on right whales, in conjunction with numerous other potential wind-farm projects, with the sufficiently “hard look” required under NEPA. Id. On both points, Plaintiffs rely on their arguments as to the flaws in NMFS’s analysis concerning vessel strikes, pile driving and operational noise, fishing entanglement risk, and loss of foraging habitats. Because Plaintiffs do not offer any new arguments regarding the “synergistic” impacts, Plaintiffs’ challenges to the 2021 BiOp and Final EIS’s consideration of cumulative impacts fail for the reasons previously discussed.

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<sup>17</sup> Plaintiffs also argue that the 2021 BiOp fails to adequately assess the right whales’ abundance and recovery goals. Pls. Mem. 42 [Doc. No. 89]; Pls. Opp. 57, 63 [Doc. No. 105]. As to recovery, the court agrees with Defendants that the Record reflects NMFS considered the right whales’ recovery goals in the context of the proposed action and that consideration is entitled to deference. See Fed. Defs. Reply. 43 [Doc. No. 114] (citing 2021 BiOp, NMFS 17528-32). As to abundance, the court likewise agrees that analysis is not necessary where Defendants do not anticipate the Project will affect species abundance because the take authorized is neither lethal nor anticipated to reduce right whale reproduction. See Fed. Defs. Reply. 42-43 [Doc. No. 114].

8. *2021 BiOp and Final EIS: Inadequate Description of Baseline Conditions*

Plaintiffs allege that, under the ESA and implementing regulations, the 2021 BiOp does not meet the minimum standards for describing baseline conditions because it fails to consider the currently degraded status of the right whale, underemphasizes the significance of the larger Rhode Island/Massachusetts Wind Energy Area as a habitat for foraging and otherwise, and fails to include the speed and size breakdown of vessels in the immediate area. Pls. Mem. 25-27 [Doc. No. 89]. Plaintiffs rely on their interpretation of Quintana-Rizzo in support. Defendants contend that NMFS did consider the appropriate environmental baseline where it relied on the best data available concerning the status of the right whale and included an analysis of the vessel traffic. Defendants further contend that Plaintiffs' challenges to the baseline conditions lack merit where they do not point to superior evidence that NMFS failed to consider. Fed. Defs. Opening Mem. 23 [Doc. No. 96] (citing Bays' Legal Fund v. Browner, 828 F. Supp. 102, 106 n.7 (D. Mass. 1993)). NMFS's consideration of the environmental baseline must include:

the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation process.

50 C.F.R. § 402.02.

Where Plaintiffs rely on the Quintana-Rizzo study that the court has already concluded Defendants considered in preparing the 2021 BiOp, Plaintiffs' challenge lacks merit. Plaintiffs have not raised any issues regarding the environmental baseline that Defendants "entirely failed to consider."

Plaintiffs contend that both the 2021 BiOp and the Final EIS contain an inadequate description of the baseline conditions because they omit the current PBR threshold for right whales. As discussed supra, because Plaintiffs have waived claims concerning specific



discussion of PBR, Plaintiffs have waived this claim. To the extent Plaintiffs challenge the 2021 BiOp and Final EIS as deficient because they fail to discuss the survival rate of the right whale, as discussed supra, Plaintiffs are incorrect. see 2021 BiOp, 2021 BiOp, BOEM\_0077276 at -7628; see also Final EIS Vol I, BOEM\_0068434 at -8573 (discussing, in the context of baseline conditions for a no-action alternative to the Project, the baseline conditions for right whales of reduced calving and increased entanglement as a “combination of factors [that] threatens the very survival of the species.”).

Defendants contend that, as to the Final EIS, NEPA does not require an assessment of the environmental baseline, but, in any event, the Final EIS does describe the baseline conditions for right whales. Fed. Defs. Opening Mem. 42-43 [Doc. No. 96]. Defendants point to discussion in the Final EIS concerning the “No Action Alternative and Affected Environment,” wherein BOEM addresses (i) seasonal foraging trends of right whales in the Action Area and New England waters, (ii) recent changes to right whale distribution and patterns, (iii) the risk posed to whales, especially right whales, by commercial fishing activities, (iv) increased mortality events from fishing-related entanglements and vessel strikes, and (v) reduced calving rates. Final EIS VOL I, BOEM\_0068434 at -8571-8576; see also Fed. Defs. Opening Mem. 42-43 [Doc. No. 96]. Plaintiffs do not point to any statutory or regulatory requirement that Defendants consider the environmental baseline under NEPA,<sup>18</sup> and, in any event, Defendants discuss the environmental

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<sup>18</sup> Neither of Plaintiffs’ cited cases stand for the proposition that NEPA requires an EIS set forth an environmental baseline. See Pls. Mem. 46 [Doc. No. 89]. Rather, American Rivers v. Fed. Energy Reg. Comm’n, 201 F.3d 1186 (9th Cir. 1999), addresses whether an environmental baseline is required in an EIS under the Federal Power Act and Half Moon Bay Fisherman’s Mktg Ass’n v. Carlucci, 857 F.2d 505 (9th Cir. 1988), is appropriately limited to the nature of the proposed action at issue. There, the court held that the agency must establish an environmental baseline for an ocean area under NEPA before considering how dumping a large volume of dredged materials would impact the area.

baseline for right whales in the Final EIS. BOEM's determination of what details are relevant to the environmental baseline contained in the Final EIS is entitled to deference.

Because Plaintiffs have not shown that either the 2021 BiOp or Final EIS contains an inadequate description of baseline conditions in violation of the ESA or NEPA, this challenge also fails.

## **VII. Conclusion**

For the foregoing reasons, Plaintiffs have failed to demonstrate that NMFS or BOEM violated the Endangered Species Act or the National Environmental Policy Act in considering and issuing the 2021 Biological Opinion or the Final Environmental Impact Statement for the Vineyard Wind Project. Accordingly, Defendants and Vineyard Wind's Motions for Summary Judgment are GRANTED and Plaintiffs' Motion for Summary Judgment is DENIED.

IT IS SO ORDERED

May 17, 2023

/s/ Indira Talwani  
United States District Judge