BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In re:	)	
	)	
Ocean Era, Inc. National Pollution	)	
Discharge Elimination System Permit No.	)	NPDES Appeal No. 20-09
FL0A00001 for the Velella Epsilon	)	
Facility in the Gulf of Mexico	)	**REPLY TO RESPONSE TO**
	)	**PETITION FOR REVIEW**
	)	
	)	
	)	
	)	

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INTRODUCTION

This case is about the duty of a federal agency to consider, analyze, and disclose the potentially significant environmental impacts of permitting a novel offshore aquaculture facility in the Gulf of Mexico: the first of many, according to Ocean Era, Inc.'s CEO, Florida Sea Grant's Aquaculture Plan, and the National Oceanic and Atmospheric Administration's (NOAA) plan for this newly designated Aquaculture Opportunity Area (AOA). *See* Petition for Review at 1, 18-19 (the Petition). The Board's review ensures that before our federal government considers permitting an entirely novel industry such as offshore aquaculture, it is fully informed of that industry's impacts on our water, our environment, and our health, and has considered the impacts of each pollutant the facility will discharge into the ocean. That is the National Environmental Policy Act's (NEPA) purpose and the purpose of the Clean Water Act (CWA) and the Endangered Species Act (ESA).

Despite repeated urgings from the public, the Environmental Protection Agency (EPA) has consistently failed to evaluate the totality of the project it authorized under the National Pollution Discharge Elimination System Permit (the NPDES Permit or the Permit) at issue in this case. *See* NPDES (Attachment 1 to EPA's Response). This Permit authorizes Ocean Era, Inc. to operate the only industrial ocean finfish farm in U.S. federal waters—in the Gulf of Mexico approximately 45 miles from the coast of Sarasota, FL—and to discharge untreated, industrial wastewater from the facility directly into the surrounding ocean. Final Environmental Assessment at 13 (final EA) (Attachment 4 to EPA's Response). But

the Ocean Discharge Criteria Evaluation (ODCE) only assesses some pollutants the facility will discharge and fails to assess others in accordance with the mandatory factors required by the CWA's implementing regulations. *See* ODCE (Attachment 18 to EPA's Response). For instance, the ODCE does not assess critical discharges authorized by this novel Permit, including antibiotics, pathogens, escaped fish, and copper the facility will discharge into the Gulf for the first time. Consequently, the full impacts to the receiving waters and to endangered species have never been assessed. Further, EPA failed to perform any evaluation of the impacts of escaped fish, pharmaceuticals, and pathogens should EPA's unsubstantiated mitigation measures fail. And while the Permit term is five years, EPA failed to assess impacts of the facility on the Gulf and endangered species for the full permit term. Perhaps most significantly, EPA ignored NEPA's mandate to consider cumulative impacts from all past, present and future actions in addition to the current project. In spite of clear plans for additional facilities in the Gulf, EPA entirely failed to consider cumulative impacts of these facilities and the impacts of this new industry on the Gulf.

ARGUMENT

I. EPA Failed to Adequately Evaluate the Project Under the ODC.

For offshore aquaculture facilities in federal waters, the CWA provides fewer safeguards. Unlike facilities in state waters, the CWA has no water quality requirements: the "bottom line" for water quality protection. Without water quality standards, many of the CWA's additional water quality protections, such as Section

302 water quality-based effluent limitations and Total Maximum Daily Loads do not apply. The lack of water quality standards renders the Ocean Discharge Criteria (ODC) that much more essential in fulfilling the CWA's purpose "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § l251(a). Yet here EPA has fallen far short of ensuring that these waters will be protected by failing to assess each pollutant the Permit authorizes and by picking and choosing among the mandatory factors the agency itself set for assessment.

A. The Project May Result in Unreasonable Degradation of the Marine Environment.

Under Section 301, "the discharge of *any* pollutant by any person shall be unlawful." 33 U.S.C. § 1311(a) (emphasis added). "The combined effect of sections 301(a) and 402 is that '[t]he CWA prohibits the discharge of *any pollutant* from a point source into navigable waters of the United States without an NPDES permit.'" *Nw. Env't Advocates v. EPA*, 537 F.3d 1006, 1010 (9th Cir. 2008). Thus, this Board need not find that the discharge of all pollutants from the project will in fact cause "unreasonable degradation to the marine environment." *See* 40 C.F.R. § 125.123. Rather Petitioners contend that EPA failed to evaluate all pollutants this project will admittedly discharge, as authorized by the Permit, leading to a clearly erroneous determination of "no unreasonable degradation." Petition at 30-32. Petitioners further claim that EPA itself described human health impacts in its EA, which suggest unreasonable degradation, yet leave this factor unaddressed in the

ODCE. Petition at 26-29. The CWA is clear that "any pollutant" that the facility will discharge must be assessed under the ODC. *See* 33 U.S.C. § 1343.

B. EPA Must Evaluate All of the Project's Discharges.

The ODC require that, in evaluating "any proposed discharges" of a facility, EPA must consider "relevant factors" contained in the ODC. *See* Petition at 25-26; 40 C.F.R. § 125.122 (a). EPA's ODCE completely ignores numerous pollutants to be discharged that require evaluation under the mandatory factors listed in regulations. *See* Petition at 30-32; *see also* 40 C.F.R. § 125.122 (a) ("The director *shall* determine whether a discharge will cause unreasonable degradation of the marine environment based on consideration of [ten relevant factors]"); *see also Am. Petroleum Inst. v. EPA*, 787 F.2d 965, 982 n.39 (5th Cir. 1986) (noting that it could not affirm the Agency's decision making process if it failed to "consider relevant factors" in the ODCE); *see also* Petition at 26. For the reasons explained in the Petition, EPA's failure to evaluate copper, escaped fish, phosphorus, nitrogen, pharmaceuticals, and pathogens/parasites under the ten mandatory factors contained in the ODC violated the CWA's anti-degradation policy. Petition at 30-32.

EPA argues that Petitioners apply an "'any degradation' standard rather than the regulatory definition of 'unreasonable degradation'" and "ignore information in the record reflecting the Region's robust consideration of, and Permit conditions that manage, the potential for adverse impacts." Response at 16. This is incorrect. Petitioners' argument is that, to determine "unreasonable degradation," EPA must evaluate "any discharge" authorized by the Permit under the mandatory

factors contained in 40 C.F.R. § 125.122 (a). Petition at 30. Only then can EPA determine whether the project will result in "unreasonable degradation of the marine environment." Anything less renders these mandatory factors meaningless and violates the CWA. *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 43 (1983) (an agency decision is arbitrary and capricious if the agency "relied on factors which Congress has not intended it to consider" or "entirely failed to consider an important aspect of the problem"); *see also Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 378 (1989) (judicial review of agency action is "meaningless" unless the reviews the record to "ensure that agency decisions are founded on a reasoned evaluation of the relevant factors.").

1. The CWA Requires Evaluation of "Any Pollutant."

The statute and regulation do not limit this evaluation to a "pollutant of concern," Response at 23, or unmitigated discharges, as EPA suggests. *See* Response at 21, 24-25. "The Act . . . insist[s] that a person wishing to discharge *any* pollution into navigable waters first obtain EPA's permission to do so." *Cty. of Maui, Haw. v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1468 (2020). Section 402 is clear that a NPDES permit may be granted only after EPA applies the standards of the CWA to *all* pollutants discharged by a permit applicant. "Discharge of a pollutant" refers to "*any* addition of *any* pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12). Congress plainly anticipated that its permit program would sweep in all pollutants. It did not say permits are only required for

the discharge of "pollutants of concern" or unmitigated pollutants, but for "any pollutant." *Id.*; *see also* Petition at 30.

Despite this plain language, EPA repeatedly excuses itself from the robust consideration of "any discharge of any pollutant" under the mandatory ODC factors enumerated in 40 C.F.R. § 125.122 (a). For example, EPA claims that copper is not a "pollutant of concern" and, despite its discharge, does not "warrant scrutiny" under the ODC. Response at 23. Yet this very discharge is authorized in the Permit and warranted water quality monitoring in the Permit at multiple locations. *Id.*

EPA also incorrectly claims that including mitigation measures in its ODCE to reduce harmful impacts of pathogens excuses the agency from evaluating pathogens under the mandatory relevant factors. Response at 21-23. Yet EPA's argument only further solidifies Petitioners': pathogens *will* be discharged from the facility at such a rate that EPA determined it necessary to impose mitigation measures. Yet nowhere does EPA point to an evaluation of pathogens under the mandatory relevant factors in the ODCE. And nowhere do the agency's regulations under the ODC even require such mitigation measures in the ODCE. To the contrary, the ODC requires that the director "shall" assess "any discharge" under the ten mandatory factors in 40 C.F.R. § 125.122 (a). The ODC only provide exceptions for discharges in compliance with section 301(g), 301(h), or 316(a) variance requirements or State water quality standards, none of which include a pollutant discharge with mitigation measures. *See* 40 C.F.R. § 125.122 (b).

For the same reason, EPA's attempt to justify its failure to assess the project's discharges of escaped fish, copper, and antibiotics under the mandatory factors also fails. In fact, EPA's error is even more egregious here because the mitigation measures are not noted in the ODCE, nor are these pollutants that the agency concedes will be discharged even mentioned in the ODCE at all. The agency's use of unassessed mitigation measures in the Final Response to Significant Comments (RTC) is a far cry from the robust assessment required under the mandatory factors. None of these mitigation measure discussions mention factors (1) through (10). Without such an assessment, EPA's determination of no unreasonable degradation was a clear error. *See* Petition at 32-33; *see also Am. Petroleum Inst.,* 787 F.2d at 982 n.39 (noting that it could not affirm the Agency's decision making process if it failed to "consider relevant factors," including the mandatory factors in the ODCE).

More specifically, Petitioners alleged that EPA's ODCE failed to address one of the ten mandatory factors with regards to phosphorus, nitrogen, and antibiotic discharges: "the potential impact of the discharge on human health through direct and indirect pathways." 40 C.F.R. § 125.122(a)(6). This omission was particularly glaring, as the very definition of "unreasonable degradation" includes any "threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms." 40 C.F.R. § 125.121(e)(2). EPA acknowledges the potential of antibiotic discharges to contribute to antibiotic resistance, Response at 20, and the potential of harmful algal blooms to "directly or indirectly cause illness

in people." Response at 17. Yet EPA again argues that mitigation measures will render these discharges "minimal," but fails to point to any such discussion of potential health impacts in the ODCE. Response at 19.

C. EPA's RTC Fails to Satisfy 40 C.F.R. § 125.122 (a).

EPA further claims that it contained its analyses of phosphorus, nitrogen, antibiotics, copper, and escaped fish in its RTC. EPA's argument is entirely a post hoc rationalization for the discharges EPA failed to analyze in the ODCE. *NRDC v. U.S. Dep't of Interior*, 113 F.3d 1121, 1126-1127 (9th Cir. 1997) (rejecting government's "post hoc [rationalization] to justify the Service's failure to designate critical habitat"). As the Ninth Circuit has stated, it is in the actual document where the agency's "defense of its position must be found." *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214 (9th Cir. 1998). EPA's failure to address the impacts of "any pollutant" in the ODCE rendered its conclusion clearly erroneous. This Board must reject EPA's post hoc arguments because these rationalizations are not found in the ODCE. *Cf. Save the Yaak Comm.v. Block*, 840 F.2d 714, 717 (9th Cir. 1988) (statement of reasons not to prepare an EIS must be in the EA and FONSI).

In addition, EPA's argument has no merit, primarily because it relies entirely on the incorrect assumption that the RTC covers the mandatory factors it must assess under the ODC for CWA purposes. EPA has offered zero legal authority to support the notion that its RTC can properly substitute for an assessment of the ten mandatory factors under the ODC required by 40 C.F.R. § 125.122 (a). Nowhere in

its RTC, for example, does EPA discuss "the composition and vulnerability of the biological communities which may be exposed to such pollutants" in regards to the facility's discharge of pathogens and fish escapes. *See* 40 C.F.R. § 125.122 (a) (3). Nor does EPA discuss the impacts of pathogens or fish escapes on "existing or potential recreational and commercial fishing, including finfishing and shellfishing." *See* 40 C.F.R. § 125.122 (a) (7). EPA's assumption is wrong because it fails to account for shortcomings in EPA's evaluation of relevant factors.

D. A Lack of Information Does Not Excuse the Agency.

EPA's claim that, because it based its decision on the record, it did not lack sufficient information is also without merit. Response at 16-17. As the Petition stated, the "record" on which EPA based its decision repeatedly acknowledged a lack of information regarding the mandatory factors. Petition at 31. EPA failed to respond to Petitioners' examples of the record acknowledging a lack of information. *See* RTC at 19 (stating that no information exists about finfish disease transfer from cultured fish to wild fish in the Gulf); *see also* Petition at 31. EPA's lack of information in the record does not excuse the agency from properly assessing any discharge of any pollutant under the ODC; to the contrary, the statute states that if EPA is unable to obtain sufficient information on any proposed discharge to make a reasonable judgment as to its environmental effect, "no permit shall be issued." 33 U.S.C. §1343(c)(2); *See also Am. Petroleum Inst.*, 787 F.2d at 981.

E. Petitioners Linked Their Arguments to Regulatory Definitions.

EPA claims that Petitioners failed to provide facts or scientific evidence and failed to link their argument to the regulatory definition of "unreasonable degradation." Response at 15. Yet it is EPA that supplied most of the evidence Petitioners cited and failed to link its response to this definition. As stated in the Petition, the definition of "unreasonable degradation" occurs when there is a "threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms." 40 C.F.R. § 125.121 (e)(2); Petition at 27.This, alone, is sufficient for unreasonable degradation. Petitioners need not prove additionally that the facility will cause "significant adverse changes in ecosystem diversity, productivity and stability of the biological community" or "loss of esthetic, recreational, scientific or economic values," as EPA claims. *See* 40 C.F.R. § 125.121 (e); Response at 16.

Further, Petitioners need not prove that the threat is unreasonable or even that it is "significant," as EPA incorrectly states. Response at 17. The regulation does not require an unreasonable or significant threat to human health, only the existence of a threat to human health. Petition at 27; 40 C.F.R. § 125.121 (e)(2). EPA admitted that the project's nutrient addition to the Gulf was "of concern" and acknowledged that both phosphorus and nitrogen from the facility may cause excess growth of phytoplankton and lead to water quality problems. Final EA at 15. Even the ODCE itself states that uneaten food, fecal matter, and metabolic wastes from the facility will lead to increased phosphorus levels, and "increased phosphorus

may, along with nitrogen, contribute to algal blooms and coastal eutrophication," both of which threaten human health. ODCE at 35. EPA's post-hoc explanation of why such threats are not "significant" based on the RTC fails to account for shortcomings in EPA's evaluation of relevant factors, nor does EPA even argue that no threat exists at all; only that the threat is mitigated. *NRDC v. U.S. Dep't of Interior*, 113 F.3d at 1126-1127 (rejecting government's post hoc rationalization).

Regarding antibiotics, EPA continues to rely entirely on its discussion of antibiotic resistance in the ODCE, which consists only of studies from other locations with different environmental conditions in defiance of EPA's statements in the ODC preamble. Response at 20; *see* Petition at 29; *see also* Ocean Discharge Criteria, 45 Fed. Reg. 65,945 (1980) ("The director must also consider the potential impacts of the discharge on human health either directly as through physical contact or indirectly through the food chain. These factors should be addressed when considering the *location* of the discharge and the type and volume of the discharger's effluent.") (emphasis added). The ODCE contains no analysis of location-specific impacts of antibiotic use in the Gulf of Mexico or from a similar offshore net pen facility. Instead, EPA refers only to studies from around the world, such as Japan, Norway, and the Puget Sound, all of which are more than thirty years old. ODCE at 40-43. The EA, on the other hand, admits that "aquaculture practices can potentially lead to elevated levels of antibiotic residuals, antibiotic-resistant bacteria" as a human health impact. Final EA at 15. Mitigation measures requiring veterinary oversight described separately in the RTC do not entirely

eliminate this threat, nor does EPA even attempt to argue that they do. Response at 20-21 (referring to the risk of antibiotic resistance as "appear[ing] unlikely" based on studies from around the world). A study regarding the use of antibiotics more than thirty years ago in Japan has little bearing on the question of whether a threat to human health exists here. Petition at 29.

EPA's only remaining argument is that Petitioners failed to cite each relevant response to comments in its Petition section regarding the inadequacies of the ODCE. This too, has no merit. 40 C.F.R. § 124.19 (a)(4)(ii) requires petitioners to "provide a citation to the relevant comment and response" if the agency responded to an issue raised in the Petition. Here, Petitioners raised two issues: EPA's failure to assess each pollutant under the ten mandatory factors in the ODC and the threats to human health resulting from the discharge of nutrients and antibiotics. Nowhere in the RTC does EPA assess the mandatory factors. Further, nowhere in the RTC does the agency discuss human health impacts of nutrient discharges, beyond one brief mention of certain algal blooms directly or indirectly causing illness in people, RTC at 22, nor the threat of antibiotic resistance to human health. Petitioners, instead, cited additional documents produced by the agency, which do discuss these issues.

II. EPA's Analysis Violated the National Environmental Policy Act.

A. EPA's Compliance with NEPA Is Mandatory.

EPA begins by arguing that the legal requirements of NEPA do not apply because the facility will not produce 100,000 pounds of fish annually to qualify as a

Concentrated Aquatic Animal Production Facility (CAAP) and is thus not a new source. Response at 33-34; *see* 33 U.S.C. § 1316 (a)(2); 40 C.F.R. § 122.24(a). This assertion is rife with contradictions in the Record. First, among aquaculture facilities, only CAAPs qualify as point sources under the CWA. 40 C.F.R. § 122.24(a). Despite claiming the facility is not a CAAP, EPA repeatedly refers to this facility as a point source throughout its supporting documents. Final EA at 7 ("EPA's proposed action is the issuance of a NPDES permit that authorizes the discharge of pollutants from an aquatic animal production facility that is considered a point source into federal waters of the United States."); ODCE at 4 (same language); *see also* Biological Evaluation at 3 (BE) (Attachment 9 to EPA's Response). Point sources do qualify as "new sources" under the CWA and require environmental review under NEPA. 33 U.S.C. § 1371(c)(1).

Second, although the facility will not produce the 100,000 pounds of fish annually required for warm water in the CAAP definition, the definition provides one other way the facility can qualify as a CAAP: through the Director's designation. *See* 40 C.F.R. § 122.24 (c)(1) ("The Director may designate any warm or cold water aquatic animal production facility as a concentrated aquatic animal production facility upon determining that it is a significant contributor of pollution to waters of the United States."). In making a designation, the Director must consider the relevant factors: (i) the location and quality of the receiving waters of the United States; (ii) the holding, feeding, and production capacities of the facility;

(iii) the quantity and nature of the pollutants reaching waters of the United States; and (iv) other relevant factors. 40 C.F.R. §§ 122.24 (c)(1)(i-iv).

Here, the Director considered exactly those relevant factors and resolved to apply CAAP standards to the facility. First, the Director considered the "production capacities of the facility" and determined that "the proposed facility's maximum annual production of 80,000 lbs is relatively close to the 100,000 lbs threshold for which the CAAP effluent limit guidelines are automatically applicable for warm water aquatic species." Fact Sheet at 6. Second, the Director considered the "quantity and nature of the pollutants" and determined that "the discharge and operational characteristics of the facility covered by this permit are substantially similar to the marine aquaculture facilities covered by the CAAP effluent limit guidelines." *Id.* Finally, the Director considered the "location and quality of the receiving waters "and the fact that "the proposed facility will be the first marine net-pen aquaculture facility to operate and discharge in the eastern Gulf." *Id.* Regarding "other relevant factors," EPA "determined that implementation of the CAAP conditions should not be overly burdensome and should pose minimal economic hardship to the permittee." *Id.* In considering these relevant factors, the Director effectively designated this facility a CAAP and thus a "new source" subject to NEPA.

To make this designation clear, the Director applied each CAAP standard to the facility. The Director determined that this facility required monitoring requirements from CAAP facility effluent limitation guidelines, Fact Sheet at 3,

based the BMP plan for the facility on the CAAP guidelines, *id.*, and applied the New Source Performance Standards effluent limitation guidelines for the CAAP industry to the facility, Final EA at 47, "due to the similarity of operational characteristics between the facility covered by this permit and net-pen facilities that are considered CAAP operations." Fact Sheet at 3.

Further, EPA also makes clear that the EA was prepared in accordance with 40 C.F.R. § 6.205 (a), which states that "the Responsible Official *must* prepare an environmental assessment (EA) (*see* 40 C.F.R. § 1508.9) for a proposed action that is expected to result in environmental impacts and the significance of the impacts is not known." Response at 7. EPA states that the facility is "expected to result in environmental impacts and the significance of the impacts are not known." Final EA at 1. Thus the decision to prepare the EA was not discretionary under this regulation. In addition, EPA also notes that the draft EA supports the USACE Section 10 permit for which NEPA is mandatory. Fact Sheet at 10.

The case EPA cites has no bearing on the issue at hand. In *Kandra v. United States*, plaintiffs argued that the government, by issuing an EA, admitted that the Klamath Reclamation Project 2001 Annual Operations Plan triggered NEPA and that they failed to comply with NEPA requirements. 145 F. Supp. 2d 1192, 1203 n.4 (D. Or. 2001). There the agency did not prepare the EA in accordance with a statutory mandate, as it did here. *See* 40 C.F.R. § 6.205 (a).

B. Potentially Significant Project Impacts Mandate Preparation of an EIS.

"If the EA establishes that the agency's action '*may* have a significant effect upon the . . . environment, an EIS must be prepared.'" *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 730 (9th Cir. 2001) (emphasis in original) (quoting *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1178 (9th Cir.1982)); *see also Blue Mountains Biodiversity Project*, 161 F.3d 1208 at 1212. Thus, this Court need not find, and the Petitioners need not prove, that the project will in fact have a significant impact before an EIS is required. *Found. for N. Am. Wild Sheep*, 681 F.2d at 1178.

"Significance" is explicitly defined by the CEQ regulations. NEPA's intensity factors weigh in favor of significance, as the effects of the first offshore aquaculture facility are "highly uncertain or involve unique or unknown risks." 40 C.F.R. § 1508.27 (b)(5). Further, as stated by Florida Sea Grant and the CEO of Ocean Era, Inc., this project will also "establish a precedent for future actions" and is thus significant. *See* Petition at 48; 40 C.F.R. § 1508.27 (b)(6). Relevant case law demonstrates that a potentially significant impact under any one of the CEQ factors requires preparation of an EIS. *See e.g. Nat'l Parks*, 241 F.3d at 731, 732-733 (EIS required for lack of data and uncertainty of impacts); *see also Blue Mountains Biodiversity Project*, 161 F.3d at 1213-14 (uncertainty about sedimentation impacts "alone" raises substantial questions requiring an EIS).

1. The Project Sets a Precedent for Future Projects.

NEPA requires that, in evaluating the intensity of potentially significant impacts to determine whether an EIS is required, EPA must consider whether the project will "establish a precedent for future actions." 40 C.F.R. § 1508.27 (b)(6). The facility is funded by Florida Sea Grant, which, since 2017, has specifically planned to operate this small scale facility "while concurrently pursuing an application for a commercial aquaculture permit" and using this facility to "document the process for future applicants to follow." Petition at 37. The CEO of Ocean Era, Inc., Neil Sims, confirmed in a May 2020 email that Velella Epsilon's plan to "pioneer the permitting process for a commercial offshore fish farm" still exists. *Id.* The Florida Sea Grant website still includes its long term Gulf Aquaculture Plan to place twenty offshore aquaculture facilities in the Gulf in ten years. *Id.* at 37-38. This plan to use the facility to set a precedent for future facilities "establish[es] a precedent for future actions" for NEPA purposes, and EPA's decision not to prepare an EIS was therefore arbitrary and capricious.

Tellingly, EPA does not even address this argument. Rather, EPA points only to the RTC, reiterating that the Permit allows only an 18 month production cycle at this facility. Response at 37. That this particular facility only authorizes one production cycle does not mean that the facility does not set a precedent. To hold otherwise would deny the public of their right to be involved "in preparing and implementing [the agency's] NEPA procedures" for this unprecedented facility, which, as the agency is well aware, is intended to set a precedent for future

facilities, and, as the first offshore facility in the Gulf, sets a precedent for the future. *See Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1115-1116 (9th Cir. 2002).

2. The Project's Effects Are Highly Uncertain.

Because the project's effects are, as the agency admits, "not known," EPA was required to prepare an EIS. *Nat'l Parks*, 241 F.3d at 731; Final EA at 1 (stating that the facility is "expected to result in environmental impacts and the significance of the impacts are not known."). EPA again ignores Petitioners' argument that, as the effects of the first offshore aquaculture facility are "highly uncertain or involve unique or unknown risks," 40 C.F.R. § 1508.27 (b)(5), EPA was required to complete at EIS. Petition at 48. This significance factor alone renders the FONSI arbitrary and capricious and EPA's conclusions clear error.

3. The Project's Impacts Are Cumulatively Significant.

EPA does not dispute that it failed to analyze cumulative impacts in light of the planned expansion of offshore aquaculture in the Gulf. That lack of analysis alone, in the face of clear evidence of potentially significant cumulative impacts, renders the EA deficient and an EIS necessary. EPA's Response completely ignores the 3-5 planned offshore aquaculture operations resulting from NOAA's designation of the Gulf as an AOA and Florida Sea Grant's Gulf Aquaculture Plan to place 20 offshore aquaculture facilities in the Gulf in ten years.

Rather, EPA argues that it properly assessed cumulative impacts over a 12-18 month period and that future offshore facilities in the region are "unlikely and speculative." Response at 36. In contrast, as stated in the Petition, 3-5 additional offshore aquaculture operations will be announced during the Permit's five year term, by 2025. A cumulative impacts analysis requires EPA to consider, analyze and disclose "the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions." 40 C.F.R. § 1508.7. Since the Permit does not require the 18 month production cycle to begin at any particular date, only within five years, it is reasonably foreseeable that these planned facilities will overlap with the Velella Epsilon facility. EPA then should have analyzed the impacts from this project during its full five year permit duration, as well as future impacts from reasonably foreseeable future actions. *Blue Mountains*, 161 F.3d at 1216 (citing 40 C.F.R. § 1508.27(b)(7)); *Save the Yaak*, 840 F.2d at 721, 722 (failure to consider cumulative impacts made EA deficient).

C. The Environmental Assessment Is Legally Deficient. '

1. EPA Did Not Consider, Analyze, and Disclose All of the Potentially Significant Impacts of the Proposed Action.

EPA does not dispute that the Permit authorizes the discharge of pathogens, antibiotics, and fish escapes from the facility and that those pollutants may have a potentially significant impact on the environment, nor that it had a duty to evaluate the impacts of these discharges in the EA.

EPA claims it did evaluate the impacts of these pollutants in the EA, yet points only to sections of the EA providing statements that these pollutants will be discharged and describing mitigation measures. EPA's inclusion of unsupported mitigation measures in the EA is insufficient. *See supra* at 6-7. It is undisputed that the EA fails to discuss the impacts of antibiotics, pathogens, and fish escapes on wild species and the Gulf. Where potential effects are not remote or speculative or can be readily ascertained, as here, then there is no reason why EPA should not have evaluated the impacts of these discharges. *See City of Davis v. Coleman,* 521 F.2d 661, 676 (9th Cir. 1975).

And even if EPA could substitute its assessment of impacts with mitigation measures, EPA fails again to point to any explanation of these mitigation measures and their effectiveness in the EA. As stated in the Petition, the "feasibility of mitigation measures is not self-evident," and the record still needs to support the conclusion that the measures attached to the permit will actually have the intended effect. Petition at 42-43; *See O'Reilly v. U.S. Army Corps of Eng'rs*, 477 F.3d 225, 234 (5th Cir. 2007) (holding that the agency did not provide a rational basis for determining that the USACE has adequately complied with NEPA because "the EA provides only cursory detail as to what those measures are and how they serve to reduce those impacts to a less-than-significant level."). EPA claims that it described in detail mitigation measures to prevent discharges, yet failed to explain how such measures will reduce discharges "to a less-than-significant" level. Such conclusions

are thus arbitrary and capricious and contrary to law and render EPA's conclusions clear error.

For example, EPA points to the copper mesh cage design as a mitigation measure for preventing fish escapes. Response at 38. EPA claims that due to the "impact resistant" design, "EPA *believes* that the cage design will result in a low probability of escape." Final EA at 37 (emphasis added). No further explanation is provided in the EA of how this design will prevent escapes, nor any analysis of impacts should EPA's "belief" prove false.

Further, EPA's second mitigation measure of only allowing native species sourced from brood stock caught in the Gulf near Madeira Beach, Florida to prevent impacts from fish escapes remains unsubstantiated. EPA argues that, because the permit does not authorize discharges of non-native fish, such a discharge need not be studied. Response at 30. However, the Permit does not authorize the discharge of *any* fish, not just non-native. *See* NPDES Permit at 5. This measure remains unenforceable, and EPA's reliance on conditions not even included in the Permit is unlawful, rendering discussion of this impact arbitrary and capricious, and the agency's conclusion legal error.

EPA's failure to discuss the impacts of antibiotic use and pathogens suffers from the same flaws. EPA points only to "cursory detail as to what those measures are," without any explanation of how they will prevent impacts. *See* Response at 37. This reliance on unsupported mitigation measures renders EPA's conclusion clear error.

2. The EA Cumulative Impacts Discussion Is Inadequate.

Similarly, EPA raised no additional argument in defending the validity of its EA to this challenge. The only argument made with respect to the adequacy of its cumulative effects analysis is on pages 36-37 of EPA's Response. EPA claims only that an analysis of cumulative impacts that focuses on the 12 to 18 month period was reasonable because EPA has not yet received any NPDES permit applications or modification requests for such a proposal. Yet this Permit allows for this 18 month period to occur any time in the next five years and to be renewed without additional analysis. At any time in the next five years, it is reasonably foreseeable that such a permit or modification could be submitted. EPA's refusal to examine the effects of this project for its full five year permit term defies the CEQ's mandate to consider "[b]oth short- and long-term effects" of the permit. 40 C.F.R. § 1508.27(a).

In failing to assess cumulative impacts for the full duration of the permit, EPA fails to sufficiently analyze cumulative impacts such as interference with migration, entanglements, and ocean noise disturbance in the final EA. Nowhere in the Response does EPA deny the impacts to migration, entanglements, and ocean noise disturbance that will occur cumulatively with these planned projects in the Gulf over a full five year term. As described in the Petition, an analysis of the full duration is essential for migration because cumulative impacts of the facility on migration over a five year period greatly differ from impacts over an 18 month period. Petition at 40. EPA's failure to adequately assess cumulative impacts renders its conclusion a clear error.

III. EPA's No Effect Finding Violated the ESA.

It is well-established that the "may affect" threshold triggering Section 7 consultation is purposefully low. Petition at 53. This standard is met if the action might have "any chance of affecting" a species with "any possible effect" "even if it is later determined that the actions are 'not likely' to do so." *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1027 (9th Cir. 2012); 51 Fed. Reg. 19,926, 19,949 (June 3, 1986). This standard makes sense considering the ESA's "institutionalized caution," which mandates that agencies give listed species the "highest of priorities" and the "benefit of the doubt." *Sierra Club v. Marsh*, 816 F.2d 1376, 1383, 1386 (9th Cir. 1987) (citations omitted). The consultation process implements these mandates by ensuring that the subject-matter experts at the wildlife agencies are involved in any close calls about an action's impact on an endangered species, not the inexpert action agency. Thus, a "may affect" finding and closer scrutiny from the Services in the consultation process is required even for actions that appear "unlikely" to affect a species or even those that are beneficial. *See* USFWS & USMFS, *ESA Consultation Handbook* E–12, https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf. And the Services may conclude informal consultation only after finding that effects are "discountable, or insignificant, or completely beneficial." *Id.* at E–12 ("Discountable effects are those extremely unlikely to occur.").

Rather than apply this precautionary standard, EPA failed to adequately consider the potential effects on species in the Gulf from this novel facility, instead

halting its analysis with unsubstantiated mitigation measures and failing to assess the project over its full five year term. EPA failed to examine the full extent of effects, including Ocean Era, Inc.'s plans for expansion and NOAA's designation of the Gulf as an AOA.

A. The May Affect Standard Is Easily Triggered Here.

EPA's Response only repeats the errors in its original determination. First, it depends entirely on the flawed assumption that the facility's unsubstantiated mitigation measures obviate the need to consider the harms from escape. As the case law and the Services' guidance instruct, a "no effect" finding is only appropriate where there is no possibility of an effect—such as where no endangered species are present. EPA cannot avoid analyzing the consequences of escape simply by insisting that escape will not occur, and if it does, the fish will be native, despite no requirement in the Permit for native fish. Response at 29-30.

EPA makes the same error with regards to its assessment of fish feed as an entanglement hazard. As stated in the Petition, the agency failed to evaluate excess feed as a food source for listed species in the final BE and the facility acting as a fish aggregating device (FAD), which is an object that attracts fish. Petition at 51. EPA points to no assessment of these impacts, instead citing one page in the permit describing unsubstantiated mitigation measures for fish feed. Response at 27-28.

EPA insists that the BE does address potential effects of entanglements and vessel strikes to species attracted by the release of feed. Response at 28. Again, EPA points only to its description of unsubstantiated mitigation measures over an 18

month period. *Id.* An assessment over 18 months is insufficient considering this permit could be renewed without further review and in light of NOAA's plans to grow the aquaculture industry in the Gulf, which go unmentioned in the Response. As stated in the Petition, the giant manta ray, for example, may encounter the facility, but EPA fails to assess any impacts because of the facility's "a short deployment period of approximately 18 months." Final BE at 20; Petition at 52. If properly assessed over the five year period of the permit and the "reasonably certain" expansion of the industry in the Gulf that may occur in those five years, EPA may have reached a different conclusion.

EPA also applies the wrong legal standard. Response at 28 (arguing it is "unlikely" vessel strikes will occur); *see also id.* (describing the risk of entanglement as "unlikely"). A finding that effects are not "likely" does not support EPA's "no effect" finding. EPA's word choice emphasizes the problem with its decision: its unsubstantiated reliance on the mitigation measures, its failure to assess for the five year duration, and its mere speculation that currently planned facilities will not be built while it is operating. There is a plethora of evidence even in the supporting documents demonstrating that the facility may pose real risks to endangered species in the Gulf. But EPA never considered what harm may result if the mitigation measures fail, additional facilities are built, or Ocean Era, Inc. renews in accordance with its long term plans.

CONCLUSION

For the foregoing reasons, Petitioners respectfully request that the Board hold the Permit invalid and remand the Permit to EPA to correct the deficiencies described above.

Respectfully submitted this 1st day of February, 2021,

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STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This document contains 6,629 words, including headings, footnotes, and quotations.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Reply to the Response to the Petition for Review in the matter of Ocean Era, Inc.'s NPDES Permit for Velella Epsilon were served by electronic mail, pursuant to the Revised Order Authorizing Electronic Service of Documents in Permit and Enforcement Appeals dated September, 21, 2020, on the following persons, this 1st day of February, 2021:

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