BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re:	)	
	)	NPDES Appeal No.
	)	
Permit applicant: Ocean Era, Inc.	)	
	)	
Permitted facility: Velella Epsilon	)	
	)	
NPDES Permit No. FL0A00001	)	
	)	
	)	

PETITION FOR REVIEW BY

FRIENDS OF ANIMALS

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INTRODUCTION

Friends of Animals submits this petition for review of the National Pollution Discharge Elimination System (NPDES) Permit No. FL0A00001, issued to Ocean Era, Inc. on September 30, 2020, by the Regional Administrator, U.S. Environmental Protection Agency Region V (EPA). Attachment 1, Velella Epsilon NPDES Permit, (hereinafter, "Permit"). The Permit would authorize the first ever aquaculture project in the Gulf of Mexico, the "VE Project."

As discussed in more detail below, EPA committed several factual and legal errors in issuing the Permit, including violations of at least three federal statutes: the Clean Water Act (CWA, 33 U.S.C. § 1251 et seq.), the Endangered Species Act (ESA, 16 U.S.C. § 1531 et seq.), and the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.). EPA failed to adequately consider if the Permit would result in undue degradation to the marine environment, failed to fully consider the impact on threatened and endangered species, and failed to take a hard look at the environmental impacts of the VE Project. Due to the clearly erroneous actions by EPA in issuing this Permit, Friends of Animals requests that the Environmental Appeals Board (EAB) grant this petition for review. In doing so, the EAB should remand the permit back to EPA, with instructions to correct the numerous errors and failings riddled throughout the permit. An additional public comment period should be allowed so that outside parties may once again assess the NPDES permit and make sure EPA follows the several laws at issue here.

PROCEDURAL REQUIREMENTS

Petitioner, Friends of Animals, satisfies the threshold requirements for filing a petition for review under 40 C.F.R. part 124. In particular:

1. Friends of Animals is entitled to a petition for review of the permit decision because it filed timely public comments with the Region. *See* 40 C.F.R. § 124.19(a)(2). Friends of Animals submitted joint comments on February 4, 2020. Attachment 2

(FoA Comment).[1] Bill Matturro also submit oral comments on behalf of Friends of Animals at the Public Hearing in Sarasota, FL on January 28, 2020.

2. Each issue being raised was raised during the public comment period to the extent required by 40 C.F.R. § 124.13. Citations to the relevant comments are included below. [2]

PETITIONER FRIENDS OF ANIMALS

Friends of Animals is a non-profit international advocacy organization incorporated in the state of New York since 1957. Friends of Animals has nearly 200,000 members worldwide. Friends of Animals and its members seek to free animals from cruelty and exploitation around the world, and to promote a respectful view of non-human, free-living and domestic animals. Friends of Animals has members that live and visit the west coast of Florida and recreate in and around areas that would be impacted by the VE Project.

STATUTORY AND REGULATORY FRAMEWORK

A. The Clean Water Act

In 1972, Congress significantly amended the Federal Water Pollution Control Act of 1948. The law became commonly known as the Clean Water Act (CWA). 33 U.S.C. § 1251 et seq. The law applies to all waters of the United States, which include "relatively permanent, standing or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams,' 'oceans, rivers, and lakes.'" *Rapanos v. United States*, 547 U.S. 715, 739 (2006).

The CWA makes it illegal to discharge any pollutant into navigable waters unless a permit is obtained. Under the CWA, EPA manages the National Pollutant Discharge

[1] Any reference to Friends of Animals comment letter also incorporates all citations and sources referenced in the comment letter.

[2] Friends of Animals requested a copy of all comments submitted. However, as of the date of this Petition, EPA has failed to provide the requested comments.

Elimination System (NPDES), which allows issuance of a permit to lawfully discharge pollutants. The issuance of such a permit is at the crux of the VE Project.

NPDES permits "**will contain limits** on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people's health."[3]

In addition, the CWA prohibits unreasonable degradation of the marine environment. Sections 402 and 403 of the CWA require a NPDES permit for a discharge into the territorial seas (baseline to 12 nautical miles, or farther offshore in the contiguous zone or the ocean). 33 U.S.C. §§ 1342, 1344.

The NPDES implementing regulations define unreasonable degradation of the marine environment as the following: (1) Significant adverse changes in ecosystem diversity, productivity, and stability of the biological community within the area of discharge and surrounding biological communities; (2) threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms; or (3) loss of aesthetic, recreational, scientific or economic values, which is unreasonable in relation to the benefit derived from the discharge. 40 C.F.R. § 125.121(e). EPA must consider the following ten factors in determining whether a discharge will cause unreasonable degradation of the marine environment:

> (1) The quantities, composition and potential for bioaccumulation or persistence of the pollutants to be discharged;
>
> (2) The potential transport of such pollutants by biological, physical or chemical processes;
>
> (3) The composition and vulnerability of the biological communities which may be exposed to such pollutants, including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act, or the presence of those species critical to the structure or function of the ecosystem, such as those important for the food chain;
>
> (4) The importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas,

[3] Environmental Protection Agency, *NPDES Permit Basics*, https://www.epa.gov/npdes/npdes-permit-basics (last updated July 12, 2019) (emphasis added).

migratory pathways, or areas necessary for other functions or critical stages in the life cycle of an organism.

(5) The existence of special aquatic sites including, but not limited to marine sanctuaries and refuges, parks, national and historic monuments, national seashores, wilderness areas and coral reefs;

(6) The potential impacts on human health through direct and indirect pathways;

(7) Existing or potential recreational and commercial fishing, including finfishing and shellfishing;

(8) Any applicable requirements of an approved Coastal Zone Management plan;

(9) Such other factors relating to the effects of the discharge as may be appropriate;

(10) Marine water quality criteria developed pursuant to section 304(a)(1).

40 C.F.R. § 125.122.

B. The Endangered Species Act

The Endangered Species Act (ESA) was passed in 1973 to prevent extinction of various organisms and to protect the ecosystems which sustain them. 16 U.S.C. § 1531. The plain intent of Congress was "to halt and reverse the trend towards species extinction, **whatever the cost**." *Tennessee Valley Authority v. Hill*, 437 U.S. 153 (1978) (emphasis added). All agencies "shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threatened species." 16 U.S.C. § 1536(a)(1).

Section 7(a)(2) of the ESA requires federal agencies, in consultation with the Fish & Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS or NOAA Fisheries), to ensure that "any action authorized, funded, or carried out" by the 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 the species' critical habitat. 16 U.S.C. § 1536(a)(2). In fulfilling the requirements of Section 7 of the ESA, agencies must "use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). According to current regulations, to "[j]eopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood

of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. §402.02.

A federal agency proposing an action (the "action agency") must first determine whether the action "may affect" a listed species or critical habitat. 50 C.F.R. § 402.14(a). If the action agency determines its proposed action "may affect" a listed species or critical habitat, it must then consult with the consulting agency, FWS or NMFS. Generally, formal consultation is required if an action may affect a listed species. 50 C.F.R. § 402.14(a). However, an exception exists where the action agency properly determines, with the written concurrence of the consulting agency, that a proposed action is "not likely to adversely affect" a listed species. 50 C.F.R. § 402.14(b)(1). The action agency can reach its no adverse effects determination through preparation of a biological assessment or informal consultation. 50 C.F.R. § 402.14(b)(1). Informal consultation "includes all discussions, correspondence, etc., between the Service and the [action] agency." 50 C.F.R. § 402.02. If the action agency determines that a proposed action is "likely to adversely affect" a listed species, then formal consultation must take place. 50 C.F.R. § 402.14.

C. The National Environmental Policy Act

Congress enacted the National Environmental Policy Act (NEPA) in 1970 to ensure the federal government considers the environmental impact of its activities before acting. NEPA is "often called the 'Magna Carta' of federal environmental laws."[4]

NEPA requires an acting agency to prepare a detailed environmental impact statement (EIS) for federal actions that significantly affect the quality of the human environment. The EIS should include "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, [and] (iii) alternatives to the proposed action." 42 U.S.C. § 4332(2)(C).

Whether an agency action meets the "significant" standard to require preparation of an EIS requires "considerations of both context and intensity." 40 C.F.R. § 1508.27. The

[4] Council on Environmental Quality, *Welcome*, NEPA.GOV, https://ceq.doe.gov/ (last visited Jan 15, 2020).

context of the action includes factors such as "society as a whole (human, national), the affected region, the affected interests, and the locality." 40 C.F.R. § 1508.27(a). The intensity of an action refers to the "severity of the impact" and requires consideration of several factors, including the degree to which the effects are highly uncertain or involve unique or unknown risks; the precedential effect of the action; whether the action is related to other actions with cumulative significant impacts; and the degree to which the action may adversely affect an endangered or threatened species. 40 C.F.R. § 1508.27(b).

D. Standard of Review.

The EAB applies the standard of review set forth in 40 C.F.R. § 124.19(a)(4): whether the decision was based on "[a] finding of fact or conclusion of law that is clearly erroneous." 40 C.F.R. § 124.19(a)(4)(i). When evaluating a permit decision for clear error, the Board examines the administrative record to determine whether the permit issuer exercised "considered judgment." *In re Palmdale Energy, LLC*, 17 E.A.D. 620, 622 (EAB 2018). The permit issuer must articulate with reasonable clarity the reasons supporting its conclusions and the significance of the crucial facts it relied on. *In re Shell Offshore, Inc.*, 13 E.A.D. 357, 386 (EAB 2007). As a whole, the record must demonstrate that the permit issuer "duly considered the issues raised in the comments" and followed an approach that "is rational in light of all information in the record." *In re City of Taunton Dep't of Pub. Works*, 17 E.A.D. 105, 112 (EAB 2016). In reviewing the agency's exercise of discretion, the Board applies an abuse of discretion standard. *In re Guam Waterworks Auth.*, 15 E.A.D. 437, 443 at n.7 (EAB 2011). "[A]cts of discretion must be adequately explained and justified" in the record. *See In re Ash Grove*, 7 E.A.D. at 397; *see also Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 48 (1983) ("[A]n agency must cogently explain why it has exercised its discretion in a given manner."). "The Board has, in the past, remanded permits because they have not provided such an adequate rationale." *In re D.C. Water and Sewer Auth.*, 13 E.A.D. 714, 764 n.79 (EAB 2008) (citations omitted). "When there are conflicting or differing explanations for a permit issuer's actions, the Board frequently

concludes that the [permit issuer's] rationale is unclear and remands for further clarity. *In re Shell Gulf of Mex.*, 15 E.A.D. 103, 143 (EAB 2010) (internal quotations omitted). Moreover, under § 124.19(a)(4)'s "conclusion of law that is clearly erroneous" standard, where a permit "does not meet minimum regulatory requirements," remand of the relevant portions of the permit "is necessary." *In re Gov't of the Dist. of Columbia Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 346 (EAB 2002).

FACTUAL BACKGROUND

Aquaculture in the United States is not new. Congress first regulated aquaculture with the Aquaculture Act of 1980, providing guidance for land-based factory farms for fish. 16 U.S.C. § 2801. However, aquaculture located **offshore**, in open waters, is entirely new. In fact, the VE Project would be the first of its kind in any federal waters of the contiguous United States.

There is no legal framework for regulating this new industry in federal waters. On August 3, 2020, the Fifth Circuit Court of Appeals affirmed a District Court decision that stated in no ambiguous terms that current federal legislation "neither suggests nor says that [NOAA] may regulate aquaculture." *Gulf Fishermen's Ass'n v. Nat'l Marine Fisheries Serv.*, 968 F.3d 454, 456 (5th Cir. 2020).

Despite the clear ruling from the Fifth Circuit, President Trump issued Executive Order 13921 on May 7, 2020, entitled "Promoting American Seafood Competitiveness and Economic Growth." This executive order directs NOAA to remove environmental regulations that the order describes as "burdens" and "unnecessary," in order to expedite the growth of this unknown industry. It also requests that the Secretary of Commerce work with EPA and other federal agencies to create "Aquaculture Opportunity Areas," where aquaculture industries should first take root, within one year. However, NOAA did not take a year to carefully consider if and where these industries should pollute federal waters, nor did it wait for Congress to implement legislation about how to responsibly proceed with

this new industry. Instead, NOAA chose the Gulf of Mexico as one such aquaculture opportunity area in just over **three months**, on August 20, 2020.

As an entirely new industry, net pen aquaculture comes with many unanalyzed risks, let alone that no federal legislation allows for its regulation. However, some risks—as evident from the single trial net pen in Hawaii and from similar systems internationally—are clear. These risks are too dangerous to experiment without further study and preparation. Such risks include fish escapes, where the farmed fish are released en masse and compete with other species for food and spawning areas and can even dilute the gene pool within their own species. Due to the net pen design, where fish are crammed into highly unnatural densities, parasites such as sea lice are common. These and other parasites or pathogens can easily spread to the surrounding area since the water flows freely in and out of the net pen. Pharmaceuticals are frequently used in such concentrations of fish in order to keep away parasites and diseases. The dumping of these pharmaceuticals into the open ocean can contribute to the ongoing threat of antibiotic resistance, as is also seen in factory farms for land mammals. Pollution of industrial wastewater represents another enormous threat. Pollutants dispersed openly throughout the vicinity of the net pen include fish fecal matter and uneaten fish food, in addition to pharmaceuticals and the fish escaping themselves.

Such dangerous risks are reason enough why an industry should not move forward in federal waters without sufficient study and analysis, something which has not occurred with the VE Project. Moreover, the VE Project is not occurring in a cold-water environment that is healthy and able to deal with such massive blows to the ecosystem. The VE Project is located in one of the most sensitive and damaged areas of federal waters, the Gulf of Mexico. One of the most damaging phenomena to occur in the Gulf of Mexico has been the

rise of enormous Harmful Algal Blooms (HABs). These HABs routinely kill fish, eels, dolphins, and sea turtles, and represent a threat to human respiratory systems as well.[5]

While the exact formula for HABs to flourish is not entirely known, what **is** known is that influxes of Phosphorus and Nitrogen increase the severity and duration of these events.[6] Furthermore, the VE Project is located in some of the areas most ravaged by HABs, Florida's Southwest coast, "from Pinellas to northern Collier counties." Final Environmental Assessment, National Pollutant Discharge Elimination System Permit for Ocean Era, Inc – Velella Epsilon Offshore Aquaculture Project – Gulf of Mexico (hereinafter, "Final EA") at 15. Sarasota, Florida lies in the middle of this stretch of coastline and is the reference point for the VE Project's offshore location. There could not be a worse location for the VE Project to take place.

On February 4, 2020, Friends of Animals commented on the Draft NPDES permit and Draft EA, bringing the above concerns and more to the attention of EPA. *See* FoA Comment 1-25. Any changes EPA made to these documents as a result of Friends of Animals' comments, and the 40,000 other comments received, were largely relegated to subtle shifts in language. Several "clarifications" were made that did not substantively mitigate or address any of the dangers presented in comments.

Nonetheless, on September 30, 2020, EPA released the Final NPDES Permit along with the Final EA. The VE Project remains substantially similar to the original drafts, much to the dismay of the environmental groups and Southwest Florida community members who commented. EPA also released the Final Finding of No Significant Impact (FONSI),

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[5] Doug Stanglin, *Red tide, the toxic algae bloom that kills wildlife, returns to southwest Florida,* USA TODAY (Nov. 13, 2019, 12:20 PM), https://www.usatoday.com/story/news/nation/2019/11/13/red-tide-florida-toxic-algae-bloom-returns-southwest-beaches/4177117002/; Lopez, C.B., Dortch, Q., Jewett, E.B., Garrison, D. 2008. Scientific Assessment of Marine Harmful Algal Blooms. Interagency Working Group on Harmful Algal Blooms, Hypoxia, and Human Health of the Joint Subcommittee on Ocean Science and Technology. Washington, D.C., *available from* https://coastalscience.noaa.gov/publications/handler.aspx?key=5687.

[6] Sea Grant Florida, Understanding Florida's Red Tide (Dec. 12, 2018), https://www.flseagrant.org/news/2018/12/understanding-floridas-red-tide.

stating that the VE Project "will not" cause any significant impacts to water quality or result in "any other" significant impacts to human health or the environment. Final FONSI.

ARGUMENT

Issuance of the Permit violates at least three federal statutes: the Clean Water Act (CWA, 33 U.S.C. § 1251 et seq.), the Endangered Species Act (ESA, 16 U.S.C. § 1531 et seq.), and the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.).

The issuance of this permit violates CWA for several reasons. Namely, in issuing the Permit, EPA failed to adequately consider whether the VE Project will result in an "unreasonable degradation of the marine environment." EPA arbitrarily limited the scope of nutrient transports, and ignored the factors involving Ocean Discharge Criteria. EPA also failed to consider the impact of the Permit on human health and the surrounding biological community; the risk of parasite or pathogen transfer from wild caught fish to the surrounding fish; the danger that pharmaceuticals used in the VE Project will contribute to antibiotic resistance; and the threats of fish escapes, which have happened with the same type of net pen and same company (then called Kampachi Farms).

The issuance of this Permit also violates the ESA for several reasons. First, EPA erred by arbitrarily concluding that the VE Project will not likely adversely affect endangered and threatened fish (including sharks), sea turtles, and marine mammals and that no formal consultation was required. Even after recognizing the potential of the VE Project to act as a Fish Aggregating Device (FAD), EPA failed to consider the resulting adverse impacts to threatened and endangered species. It also failed to consider the increased traffic and risk of vessel strikes. Finally, EPA failed to meaningfully address how the heightened probability of HABs will adversely impact all of these threatened and endangered species. Thus, EPA failed to ensure that the VE Project would not jeopardize threatened or endangered species, as is required by the ESA.

Finally, the issuance of the Permit violates NEPA for several reasons. First, the significance and precedent-setting ability of the VE Project demands that EPA conduct a full

Environmental Impact Statement (EIS) instead of relying on an ineffective Environmental Assessment (EA). Second, EPA failed to consider the full cumulative impacts of creating a new industry in the Gulf of Mexico. EPA believes it is reasonable to expect future aquafarms, but unreasonable to consider their impacts. Third, EPA erred by not meaningfully addressing the ability of the VE Project to exacerbate Harmful Algal Blooms (HABs), in direct violation of NEPA's scope of the human environment.

A. EPA failed to comply with the Clean Water Act.

The CWA established the National Pollutant Discharge Elimination System (NPDES) to "protect and improve water quality by regulating point-source discharges." 33 U.S.C. § 1342. EPA can only issue a permit for discharge of pollutants into the ocean if it first determines that such discharge "will not cause unreasonable degradation of the marine environment." 40 C.F.R. § 125.123. The regulations define unreasonable degradation of the marine environment as: "(1) Significant adverse changes in ecosystem diversity, productivity and stability of the biological community within the area of discharge and surrounding biological communities, (2) Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms, or (3) Loss of esthetic, recreational, scientific or economic values which is unreasonable in relation to the benefit derived from the discharge." 40 C.F.R. § 125.121(e). Moreover, EPA must consider ten factors when determining whether a discharge will cause unreasonable degradation of the marine environment, including the potential transport of pollutants, the biological communities which may be exposed to pollutants, and the potential impacts on human health. 40 C.F.R. §125.122.

Nutrients, fish escapes, and pharmaceuticals comprise the most relevant pollutants that would be discharged from the VE Project. In issuing the Permit, EPA failed to consider the required factors to determine whether the Permit would cause "unreasonable degradation," as required by the Clean Water Act, and its implementing regulations. *Id.*

1. EPA erred by failing to fully consider or require sufficient downstream monitoring requirements for discharges.

One factor in evaluating ocean discharge criteria is the potential for transport of pollutants by physical processes. 40 C.F.R. § 125.122. Part of the reason why EPA believes extensive monitoring to be unnecessary is due to the "high current flows" surrounding the VE Project. Response to Comments at 26. However, this means that all discharges, whether biological materials, nutrients, or pharmaceuticals, will be transported elsewhere into the Gulf of Mexico, potentially causing an unreasonable degradation of the surrounding marine environment. Since that is the case, EPA should have required sufficient downstream monitoring requirements. EPA is required to "specify a monitoring program, which is sufficient to assess the impact of the discharge on water, sediment, and biological quality including, where appropriate, analysis of the bioaccumulative and/or persistent impact on aquatic life of the discharge." 40 C.F.R. §125.123(d)(2). Friends of Animals brought this to EPA's attention in its initial comment. FoA Comment at 20. However, EPA failed to address this issue. The Permit only requires two measurements, both of which are located only five meters away from the VE Project. Permit at 15. The short distance does not match up with EPA's own estimation of the radius of impacts. In the OCDE, EPA reveals that the impacts will "likely" be kept within a much larger distance: "300-500 meters from the perimeter of the cage array." OCDE at 46.

It was arbitrary and capricious for EPA to approve a monitoring plan that lacks any scope beyond five meters of the project, especially when EPA admits that impacts will extend far beyond that. In addition, when making its determination that the VE Project would not degrade the marine environment, it erred by failing to consider the potential for transport of pollutants. This is especially troubling because the general current flows from the VE Project have a Southeasterly direction, which means that streams of nutrients may be sent to Florida's coast in the Gulf of Mexico. EPA's failure to consider the potential for transport of pollutants by physical processes and specify a monitoring program that is

sufficient to assess the impact of the discharge on water violates the CWA. 40 C.F.R. §§ 125.122, 125.123(d)(2).

2. EPA failed to fully consider the possibility of fish escapes.

The CWA prohibits discharging pollutants without a permit. 33 U.S.C. § 1251. The CWA defines pollutants as, *inter alia*, "biological materials." 33 U.S.C. § 1362(6). Several courts have deemed fish to qualify as biological materials. *Nw. Envtl. Advocates v. EPA*, 537 F.3d 1006, 1021 (9th Cir. 2008). Thus, fish escaping from the VE Project qualify as pollution. The CWA also requires EPA to assess the "importance of the receiving water area to the surrounding biological community" as part of the criteria for unreasonable degradation of the marine environment. 40 C.F.R. § 125.122(a)(4). Friends of Animals brought this to EPA's attention in its initial comment. FoA Comment at 21. Fish escapes present several dangers, including competition with local fish, and spread of disease to wild stocks. *Id.* In response, EPA repeated its claim that it "believes that the cage design will result in a low probability of escape." Response to Comments at 17. EPA did not address the escape event of the Velella Gamma trial, which involved a similar net pen system, and was also administered by Ocean Era, Inc. (then called Kampachi Farms).[7] EPA also failed to discuss why the VE Project's cage has a low probability of escape, other than stating that it will be constructed from copper mesh.

As part of the possibility of fish escapes, EPA failed to meaningfully address the increasing frequency and severity of hurricanes in the Gulf of Mexico. NOAA expects the proportion of tropical cyclones (hurricanes) that will reach "very intense" levels to increase.[8] EPA itself stated that "global climate change could have significant effects on Gulf aquaculture operations." Final EA at 54. Just this year, a record number of named hurricanes has reached U.S. coastline in the Gulf of Mexico. Thus, EPA must actually

[7] Environmental Protection Agency, *Environmental Assessment, Velella Delta Project*, RIN 0648-XD961 35 (2016).

[8] NOAA, *Global Warming and Hurricanes*, GEOPHYSICAL FLUID DYNAMICS LABORATORY, https://www.gfdl.noaa.gov/global-warming-and-hurricanes/ (Dec. 17, 2019).

consider the possibility of hurricanes to damage the VE Project. Instead, EPA arbitrarily states that climate change will not have an effect for at least five years. *Id*.

3. EPA failed to fully consider the possibility of pathogen and parasite transfer.

Friends of Animals notified EPA of potential disease transfer in its comment to the draft EA. FoA Comment at 23. Disease and parasites are common in fish farms, partly due to the density of animals kept in a small space together. EPA's response to this was, in part, that "[t]here is limited to no information about finfish disease transfer from cultured fish to wild fish in the Gulf." Response to Comments at 19. EPA admitted that farmed fish species can transmit infectious pathogens to wild species and relied on studies from the Puget Sound area of Washington State to demonstrate that the occurrence of such transfers was low. *Id*. However, this is not an apt comparison, as warm water in the gulf may promote higher disease transfer.

EPA erred by not fully considering the possibility of disease and pathogen transfer or conducting new studies aimed specifically at the waters of the Gulf of Mexico. This speaks to at least two of the factors of unreasonable degradation of the marine environment. 40 C.F.R. § 125.122(6), (7). EPA must address these factors as part of its efforts to prevent unreasonable degradation of the receiving waters. 40 C.F.R. § 125.121(e). A NPDES permit may only be issued in compliance with these factors. 33 U.S.C. §§ 1342, 1344. EPA summarized its finding in the Ocean Discharge Criteria Evaluation (ODCE). Attachment 4.

EPA noted that multiple studies have reported "the phenomenon of antibiotic resistance of bacteria near fish farms." ODCE at 41. EPA states that studies confirming antibiotic resistance in Japanese fish farms "should not be interpreted to indicate similar antibiotic resistance with very different environmental conditions." *Id.* Yet, EPA gives no reason why a similar result would not occur. In the next paragraph, EPA cites a 1988 study involving shellfish in Puget Sound to suggest that this very different environmental

condition **should** support a similar result in the VE Project. *Id*. EPA's reasoning was inconsistent, and it never explained why it relied on studies with favorable outcomes but disregarded those with unfavorable outcomes. When discussing the ODC factors, EPA's conclusion was that the VE Project is "not likely" to have any impact on human health by relying on after-the-fact antibiotic usage reporting to mitigate this harm. *Id*. at 46.

4. EPA failed to consider the threat to human health and biological communities caused by the VE Project's contribution to harmful algal blooms and red tides.

Friends of Animals and others notified EPA that the VE Project poses a threat to human health, shorelines, beaches, and the biological community because it would contribute to harmful algal blooms (HABs), also known as red tides. *See, e.g.,* FoA Comment at 13-17, 23; *see also* Response to Comments at 23-27. The CWA requires EPA to consider these threats before issuing a permit. In particular, EPA must consider "the effect of disposal of pollutants on human health or welfare, including but not limited to plankton, fish, shellfish, wildlife, shorelines, and beaches;" and "the effect of disposal of pollutants on marine life including the transfer, concentration, and dispersal of pollutants or their byproducts through biological, physical, and chemical processes; changes in marine ecosystem diversity, productivity, and stability; and species and community population changes." 33 U.S.C. § 1343(c)(1)(A), (B). The regulations also state that EPA must consider, among other things, "[t]he potential transport of such pollutants by biological, physical or chemical processes;" "[t]he composition and vulnerability of the biological communities which may be exposed to such pollutants, including the presence of unique species or communities of species, the presence of species identified as endangered or threatened pursuant to the Endangered Species Act;" "[t]he importance of the receiving water area to the surrounding biological community, including the presence of spawning sites, nursery/forage areas, migratory pathways, or areas necessary for other functions or critical stages in the life cycle of an organism;" and "[t]he potential impact of the discharge on human health through direct and indirect pathways." 40 C.F.R. § 125.122(a).

EPA does not dispute that HABs are detrimental to human health, shores, beaches, and biological communities. Nor does EPA dispute evidence that pollutants from the VE Project may contribute to, and exacerbate, HABs and red tides. *See e.g.,* FoA Comment at 13-16, 23; *see also* Final EA at 34 (admitting that both phosphorus and nitrogen from the VE Project may cause excess growth of phytoplankton and lead to esthetic and water quality problems, which may be "of concern" for HABs). Thus, EPA was required to consider how the VE Project's threat to human health and the biological community due to its contribution to HABs. 40 C.F.R. § § 125.122(a), 125.121(e). By failing to do so, EPA made a clear legal error.

However, EPA does not consider the harm from HABs and red tides in its determination of no unreasonable degradation to the marine environment. In response to comments, EPA dismisses the issue because it claims that "there is not enough quantitative evidence to conclude that marine aquaculture, or the proposed fish farm, can be directly linked to the occurrence of *K. brevis*." Response to Comments at 24. EPA admitted in the OCDE that nutrients "contribute to certain harmful algal blooms," that "HABs are on the rise in frequency, duration, and intensity in the gulf," and that this is "largely because of human activities." ODCE at 34. Yet, EPA still holds on to its claim that "not enough scientific evidence is available to suggest that [nutrient discharges] from fish farms, or the proposed project, can be directly related to the occurrence of red tides." *Id.* at 35. In the actual evaluation of regulatory factors in the OCDE, EPA fails to mention HABs even once. EPA's refusal to consider how the VE Project will contribute to and exacerbate HABs is clearly erroneous because EPA cannot disregard the impact of the pollution by casting doubt on the amount of "quantitative evidence" available. To the contrary, 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).

Moreover, according to federal regulations, if there is "insufficient information to determine prior to permit issuance that there will be no unreasonable degradation" then

the burden shifts onto EPA to determine that, among other things, "[s]uch discharge will not cause irreparable harm to the marine environment during the period in which monitoring is undertaken." 40 C.F.R. 125.123(c)(1). If EPA cannot make that determination on the basis of available information, then "there shall be no discharge of pollutants into the marine environment." *Id.* Here, EPA erred because it did not consider the threat posed by HABs and did not provide evidence to support a determination that the discharge will not cause irreparable harm.

Finally, as discussed in more detail below, the VE Project's contribution to HABs will impact vulnerable biological communities, including threatened and endangered species in the area, and EPA erred by failing to consider this issue. 40 C.F.R. § 227.10(b)(3); *infra* at 28.

a. EPA failed to ensure the Permit would not threaten beaches and shorelines and failed to provide sufficient phytoplankton monitoring.

As Friends of Animals explained in its comment, the ocean currents are predominantly southeast and northeast, which in both cases will send streams of discharge to Florida's HAB-ravaged shorelines and beaches. FoA Comment at 16-17. "EPA did not perform an analysis of whether particles will arrive near the west Florida shore." Response to Comments at 25. However, they should have. Given that HABs exist and start offshore, and can undoubtedly be made much worse by nutrient loads, EPA erred by failing to consider this impact and instead relying on the claim that "impacts of nutrient discharge from aquaculture on the intensity and/or frequency of HABs is not well understood." *Id.* at 24; 33 U.S.C. § 1343(c)(2) (no permit shall be issued where there is insufficient information to make a reasonable judgment).

EPA insinuates that, because we cannot directly relate nutrients to HABs, there is no reason to require monitoring for already-existing blooms that will be worsened by nutrient loads. EPA's failure to perform an analysis of whether particles will arrive near the west Florida shore and contribute to HABs and red-tide violates the CWA requirements

that it ensure there would be "no unacceptable danger to shorelines or beaches." 40 C.F.R. § 227.10(b).

At minimum, EPA needs to include requirements for monitoring of phytoplankton that is sufficient to assess the impact of the discharge on water and biological quality. 40 C.F.R. § 125.123.

B. EPA's failure to ensure that the Permit will not likely jeopardize the continued existence of any ESA-listed species or adversely affect its critical habitat is a clear violation of the law.

EPA completely failed to quantify the actual impact of the VE Project on threatened and endangered species' chance of survival and recovery. Moreover, EPA failed to fully consider the significant threats that the VE Project poses as a FAD, and how it could tip species to the point where survival and recovery will be at risk, especially given the degraded baseline conditions in the Gulf of Mexico. EPA must consider these issues and proceed with a formal consultation and Biological Opinion under the ESA.

1. EPA failed to consider the VE Project as a Fish Attracting Device and the resulting adverse impacts to threatened and endangered species.

EPA repeatedly acknowledges that the pen system could act as a fish aggregating device (FAD) and attract fishers, species that feed on fish, and others. *See e.g.,* Response to Comments at 35 ("It is reasonable to assume that native fish will be attracted to the pen system."); Biological Evaluation at 17 (claiming that the "most likely effect" of the project was behavioral interactions such as "individuals engaging in investigative behavior around the array or that prey on wild fish accumulated near the facility."); Biological Evaluation at 25 ("Commercial and recreational fishermen are expected to visit the proposed project because it could act as a fish attraction device.").

Despite acknowledging the fact that the VE Project will attract marine life and generate increased traffic, EPA failed to analyze these impacts when making a finding regarding whether the VE Project is "likely to adversely affect" or jeopardize the continued existence of any endangered or threatened species.

Friends of Animals notified EPA in its comment that EPA needed to consider the impact of the VE Project as a FAD. FoA Comment at 7-10; 18-19. Specifically, Friends of Animals described how the VE Project's impact as a FAD will adversely affect ESA-listed species in multiple ways. First, FADs attract fishers who catch the fish attracted to the net pen. The fishing industry has taken advantage of this phenomena for generations. Indeed, Ocean Era, Inc. touts this ability on their website, claiming that their Hawaii net pens were "highly popular with the local Kona fishing community." Ocean Era, Inc. co-founder Neil Sims stated that at least three types of fishers (local recreational, charter boat, and commercial fishers) were catching fish "hand over fist." FoA Comment at 9. Second, the net pen's ability to act as a FAD also attracts sightseers and other recreationalists. Ocean Era, Inc. admitted that aquaculture facilities "proved to be exciting dive sites for snorkel tours." FoA Comment at 8. Third, the VE Project will also attract threatened and endangered species. FoA Comment at 7. These species are threatened by the net pen itself, which poses an entanglement risk, as well as the danger posed by increased vessels, fishers, and recreationalists all meeting up in the area of the VE Project. FoA Comment at 7-10; 18-19.

In response to comments, EPA did not acknowledge the site as a potential FAD or how that could adversely affect threatened and endangered species. Instead, EPA stated that whether the VE Project acts as a FAD "is outside the scope of the NPDES and USACE's permitting actions." Response to Comments at 34; s*ee also* Response to Comments at 37-39 (only providing cursory analysis of disturbance, entanglement, vessel strikes, water quality, migratory birds, light, and genetic impact, and parasites and pathogens, with no analysis of how the VE Project can act as a FAD).

EPA's conclusion that this issue is outside the scope of the permitting process is clearly erroneous under the law because agencies have an obligation under Section 7 of the ESA to ensure that any action authorized by the agency "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification." 16 U.S.C. § 1536(a)(2). EPA has similar obligations

under the CWA. 40 C.F.R. § 122.49(c). EPA cannot make the required determinations without considering whether the VE Project will act as a FAD, attracting and adversely impacting threatened and endangered species, because EPA must use the use the best scientific and commercial data available in making this determination. 16 U.S.C. § 1536(a)(2); see also 50 C.F.R. § 402.12 (2001) ("[a] biological assessment shall evaluate the potential effects of the action on listed and proposed species."). Moreover, the current regulations state that "[e]ffects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, **including the consequences of other activities that are caused by the proposed action**." 50 C.F.R. § 402.02 (emphasis added).[9]

EPA's failure to consider the impact of the VE Project as a FAD is a critical error because it undermines key assumptions that formed the basis for the finding that the Permit is not likely to adversely affect threatened or endangered species, including the following: (1) that listed species are not likely to occur in the area;[10] (2) that the effect of the VE Project on maritime traffic is limited to the vessels needed to operate the net pen;[11] and (3) that the impact would be insignificant given the allegedly small physical space of the VE Project.[12] As described in more detail below, the VE Project's ability to attract

[9] Friends of Animals does not take the position that the new ESA regulations are valid. Section 7(a)(2) requires Federal agencies to consult with the Services to ensure that **any** action authorized, funded, or carried out by such agency is not likely to jeopardize species or adversely modify critical habitat. The ESA also requires that any doubt should be read in favor of protecting the species and that the proposed action bear the burden of risk and uncertainty. The new regulations improperly limit the effect analysis to those that are "reasonably certain to occur." Thus, the regulation likely limits or excludes consideration of certain consequences that may jeopardize listed species and would result in far greater risk to endangered and threatened species. It also violates the best available science requirement of the ESA. Nonetheless, even using the standard in the recently promulgated regulations, EPA is still required to consider the increased vessel traffic because it is reasonably certain to occur as a result of the VE Project.

[10] *See, e.g,.* Biological Evaluation at 21 (finding that impacts are "highly unlikely for each ESA-listed fish species that was considered given their unique habitat preferences and known proximity to the proposed action area); Biological Evaluation at 22 (claiming that sharks, sawfish, and Nassau grouper are not likely to occur in the area); Biological Evaluation at 23 (claiming that whales "are unlikely to overlap geographically with the small footprint of the proposed action area").

[11] Biological Evaluation at 24, 25; Response to Comments at 38.

[12] *See, e.g.,* Biological Evaluation at 22 (claiming that it does not expect the disturbance to the giant manta ray, even though it may encounter the facility, because the facility is small and will have a short deployment period).

threatened and endangered animals, as well as other vessels, fishers, and maritime traffic undermines these assumptions and the conclusion that the VE Project will not jeopardize or adversely affect threatened or endangered species. At a minimum, the EPA should have conducted a formal consultation and prepared a biological opinion to consider these issues in more detail.

b. EPA erred by failing to consider the impacts of increased maritime traffic caused by the VE Project.

EPA admits that "[a]ll sizes and types of vessels have the potential to collide with nearly any marine species. Strikes can result in death or injury to the marine animal and may go unnoticed by the vessel operator. Some marine species spend short durations 'rafting' at the ocean's water surface between dives which makes them more vulnerable to vessel strikes." Biological Evaluation at 17-18.

However, EPA errs in failing to consider the impact of vessel strikes caused by the increase of maritime traffic that the VE Project would attract. EPA claims that "opportunities for disturbance from vessels participating in the proposed project are minimal" because "vessels participating in the proposed project are minimal." Biological Evaluation at 24, 25. EPA also states that strikes from other vessels not operated by the facility are anticipated to be improbable due to the proximity to shore, approximately 45 miles. Biological Evaluation at 25. Not only are these conclusions not supported by any evidence,[13] they also ignore the increased level of vessels that are reasonably certain to occur around the proposed project. Bringing eager fishers to the area will increase the number of vessels, and hook-and-line fishers, as similar devices did in Hawaii. FoA Comment at 11. This significantly raises the likelihood that marine life will be adversely affected. *Id.*

[13] EPA fails to cite any evidence that vessel strikes are unlikely because of the VE Project's distance from the shore. To the contrary, the National Oceanic and Atmospheric Administration states that "[v]essel strikes can occur anywhere in the world's oceans where ships and marine animals co-occur." NOAA, Understanding Vessel Strikes, available at https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes.

EPA acknowledged that commenters expressed concerns about "vessel strikes from **increased** traffic." Response to Comments at 37 (emphasis added). However, EPA fails to address this effect or respond to these comments. Instead, EPA repeats that "[t]he probability that collisions between the marine mammals considered in the Biological Evaluation with the vessel associated with the proposed project was determined to be low given there is **only one vessel** and it will be following NMFS guidelines on how to reduce vessel strikes with marine mammals. Vessel strike impacts are discountable." Response to Comments at 38 (emphasis added).

This is both factually and legally erroneous. According the ESA, agencies have an obligation to ensure that "**any** action . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification." 16 U.S.C. § 1536(a)(2) (emphasis added). This determination must be based on the best scientific and commercial data available. *Id.* Moreover, the current regulations state that the effect of the action includes "all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action." 50 C.F.R. 402.02.[14] Thus, EPA cannot ignore the best available data, including its own statements, that the VE Project will act as a FAD and attract both ESA-listed species and maritime traffic to the same area.

But for the proposed action, the area would not see an increase in fishers and recreationalists. There is clear and substantial information that the VE Project will increase vessel traffic in the area. *See, e.g.,* FoA Comment at 8-9; Biological Evaluation at 25. Thus, it was erroneous for EPA to limit its analysis to "only one vessel" (Response to Comments at

[14] *See supra* n.8 regarding validity of new regulations.

38) and ignore comments expressing concerns about how increased traffic is likely to adversely affect threatened and endangered animals.

c. EPA's conclusion that the VE Project is not likely to jeopardize or adversely affect oceanic whitetip sharks and other ESA-listed fish is clearly erroneous.

EPA's biological assessment, EA, and response to comments include contradictory statements that lead to the erroneous conclusion that sharks are "not likely" to occur near the project. Response to Comments at 30. This conclusion fails to consider and contradicts evidence that that the net pen will act as a FAD, and thus, is more likely to attract predators, such as listed sharks. Specifically, EPA acknowledges that oceanic whitetip sharks may occur within the action area (Biological Evaluation at 10) and that sharks are "opportunistic feeders." Final EA at 20. Friends of Animals pointed to this contradiction in its comments. FoA Comment at 8. EPA failed to respond.

EPA erred by failing to consider the project as a FAD that attracts threatened and endangered fish and other fishers in making its finding that the VE Project is not likely to adversely affect ESA-listed sharks and other fish. FoA Comment at 8. As discussed above, the VE Facility is likely to attract fishers and others because it is a FAD. As NMFS states on its website, "several lines of evidence suggest that the once common and abundant [oceanic whitetip] shark has experienced declines of potentially significant magnitude due to significant fishing pressure.[15] NOAA explains that there has been an 88 percent decline in the Gulf of Mexico and that the primary threat to the species is incidental bycatch.[16] "Given their life history traits, particularly their late age of maturity and low reproductive output, oceanic whitetip sharks are inherently vulnerable to depletions, with low likelihood of recovery."[17] Fishing is also the main threat to the giant manta rays, which are directly

[15] National Oceanic and Atmospheric Administration, Species Directory: Oceanic Whitetip Shark, *available from* https://www.fisheries.noaa.gov/species/oceanic-whitetip-shark#:~:text=The%20primary%20threat%20to%20the,in%20fisheries%20throughout%20their%20range.

[16] *Id.*

[17] *Id.*

targeted and caught as bycatch, and efforts to address these threats are inadequate.[18] EPA admits that the manta ray is "frequently sighted" within the Gulf of Mexico. Biological Evaluation at 11.

However, EPA completely fails to address how the VE Project will attract fish as well as fishers that could catch the listed species, directly or through bycatch, and reduce the number of ESA-listed fish, including the oceanic white tip shark and giant manta ray.

The Biological Evaluation also claims that the oceanic whitetip shark is not likely to occur near the VE Project given its preference for deeper waters. Biological Evaluation at 22. However, like other statements underlying the not likely to adversely affect finding, this statement is also erroneous and contradicted by the evidence. EPA admitted that the oceanic whitetip shark can be found in waters as shallow as 37 meters. Biological Evaluation at 11. The VE Project will be located at an approximate water depth of 40 meters. Biological Evaluation at 8. Thus, the conclusion that the oceanic whitetip shark is not likely to be found in the project area is clearly erroneous, especially since the net pen will act as a FAD. Moreover, the conclusions that the oceanic whitetip shark and giant manta ray will not likely be adversely affected and that their survival and recovery is not jeopardized are also erroneous, as both species are likely to be in the area and injured by increased fishing vessels, recreation vessels, and potentially the net pen itself.

d. EPA's conclusion that the VE Project is not likely to jeopardize or adversely affect ESA-listed sea turtles is clearly erroneous.

EPA acknowledges that there are five ESA-listed sea turtle species that may occur in or near the VE Project area, including the following: green, hawksbill, leatherback, kemp's ridley, and loggerhead sea turtles. Biological Evaluation at 14. Again, EPA errs in failing to consider the effects of the VE Project as attracting additional sea turtles, fishers, and

[18] National Oceanic and Atmospheric Administration, Species Directory: Giant Manta Ray, *available from* https://www.fisheries.noaa.gov/species/giant-manta-ray#:~:text=The%20main%20threat%20to%20the,rakers%2C%20which%20are%20traded%20internationally.

vessels. Thus, its conclusion that "effects from disturbance are expected to be insignificant" is contradicted by the evidence. *See* Biological Evaluation at 24.

For example, EPA acknowledged that "ESA-listed sea turtles may be attracted to aquaculture facilities as potential sources of food, shelter, and rest." Biological Evaluation at 24. EPA also states that "[s]ea turtles are known to bite baited hooks and can be hooked incidentally by these fishermen." Final EA at 42. EPA acknowledges that "[s]ea turtles may experience disturbance by stress due to a startled reaction should they encounter vessels in transit to the proposed project site." Biological Evaluation at 24. In particular, "Loggerhead sea turtles are a long-lived, slow-growing species, vulnerable to various threats including alterations to beaches, vessel strikes, and bycatch in fishing nets." Biological Evaluation at 15. It is estimated that "hundreds of sea turtles are struck by vessels in the United States every year, and many of them are killed without being observed. Vessel strikes are one of the most common causes of sea turtle stranding in the United States. In Florida alone, injuries consistent with vessel strikes are observed in 20 to 30 percent of stranded sea turtles."[19] The federal recovery plans for ESA-listed sea turtle species that may occur in the area identify aquaculture, vessel strikes, recreational fishing, commercial fishing, boating, and diving as threats to the species.[20] For example, the Recovery Plan for the loggerhead sea turtles states bycatch "is the most significant anthropogenic threat to the conservation of Atlantic loggerhead populations.[21] It also states that "[t]he seriousness of the threat caused by vessel strikes to loggerheads in the Atlantic and Gulf of Mexico cannot be overstated."[22] The Recovery Plan emphasizes that "increases in vessel traffic that result for aquaculture operations must be evaluated with respect to

[19] National Oceanic and Atmospheric Administration, Understanding Vessel Strikes, *available from* https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes.

[20] National Marine Fisheries Service and U.S. Fish and Wildlife Service. 2008. Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*), Second Revision (Hereinafter, "Loggerhead Sea Turtle Recovery Plan") at I-54, I-57 to I-58, II-6 (recovery goals).

[21] Loggerhead Sea Turtle Recovery Plan at II-1.

[22] Loggerhead Sea Turtle Recovery Plan at I-75.

the effect on resident or migratory sea turtle populations.[23] However, EPA and NOAA failed to do so.

Instead, EPA's conclusion is irrational and contradicts its own earlier statements. EPA concludes that "[t]he action agencies do not expect increased fishing activity in the project area since there were no reports or observations of interactions between fishermen and ESA-listed species in previous Velella trials (Velella Beta and Velella Gamma) in Hawaii (NMFS, 2016)." Biological Evaluation at 25. To begin with, this statement contradicts statements EPA made earlier in the same paragraph that "[c]ommercial and recreational fishermen are expected to visit the proposed project because it could act as a fish attraction device." *Id.* Moreover, the number of "reported" interactions of a separate project located in a completely different environment does not demonstrate that there will be no increased fishing activity. To the contrary, EPA knows that detection of sea turtles by vessel operators is difficult. Biological Evaluation at 18. Thus, the lack of "reported" interactions does not show that such interactions do not occur. Rather, the amount of increased traffic and animals is a better indication of how sea turtles will be impacted. As reported by NMFS,

> It is estimated that hundreds of sea turtles are struck by vessels in the United States every year, and many of them are killed without being observed. Vessel strikes are one of the most common causes of sea turtle stranding in the United States. In Florida alone, injuries consistent with vessel strikes are observed in 20 to 30 percent of stranded sea turtles.[24]

In short, as Friends of Animals explained in its comment, the permit is a serious threat to sea turtles. FoA Comment at 11. EPA erred by failing to address how increased vessels, fishing, and disturbance will affect ESA-listed sea turtles. *See* Oceana, Inc. v. Ross, Civil Action No. 15-0555 (PLF), 2020 U.S. Dist. LEXIS 188328, at *71 (D.D.C. Oct. 9, 2020) (finding that the agency's no-jeopardy conclusion was arbitrary and capricious because it

[23] Loggerhead Sea Turtle Recovery Plan at I-583.

[24] National Oceanic and Atmospheric Administration, Understanding Vessel Strikes, *available from* https://www.fisheries.noaa.gov/insight/understanding-vessel-strikes.

lacked discussion of many of the effects on the sea turtle species that it identified earlier in its evaluation).

e. EPA's conclusion that the VE Project is not likely to jeopardize or adversely affect ESA-listed marine mammals is clearly erroneous.

EPA acknowledges that the endangered Gulf Bryde's whale is common in the Gulf, and endangered blue whale, fin whale, humpback whale, and sperm whale could all occur in the action area. Biological Evaluation at 12. "The Gulf Byrde's whales are one of the most endangered whales in the world, with likely less than 100 whales remaining." Biological Evaluation at 13. However, EPA erred by failing to consider the VE Project's as a FAD that would attract whales and other vessels. Specifically, EPA emphasized that its conclusion that the VE Project will not adversely affect ESA-listed whales was based on "minimal vessel trips." Biological Evaluation at 23. It also stated that "[t]he expected absence of the ESA-listed marine mammals in or near the proposed action area is an important factor in the analysis of whether impacts from the proposed project will have any effect on ESA-listed whales." Biological Evaluation at 23. Moreover, EPA failed to consider and respond to Friends of Animals' concerns that increased noise caused by the VE Project would injure marine mammals. Friends of Animals explained that:

> Open systems such as the VE Project have been the loudest among aquaculture production systems examined, and the majority of ambient noise recorded in net pens falls within the 100 to 500 Hz range. This is within the range that could impact marine mammals. For example, fin whales and baleen whales are impacted by low frequency noises. Baleen whales, such as the Gulf Bryde's whale, have very specialized skulls that can capture the energy of low frequencies and direct it toward their ear bones to hear. If the sounds waves are longer than the whale's body, they can vibrate its skull in a process known as bone conduction. Simulation studies also found that a fin whale's bone conduction mechanism is 4x more sensitive to low-frequency sounds than the pressure mechanism that goes through the tympanoperiotic complex (TPC-which holds the whale's ear bones on its skull).

FoA Comment at 10. EPA admits that

> Underwater noises can interrupt the normal behavior of whales, which rely on sound to communicate. As ocean noise increases from human sources, communication space decreases and whales cannot hear each other, or discern other signals in their environment as they used to in an undisturbed ocean.

> Different levels of sound can disturb important activities, such as feeding, migrating, and socializing. Mounting evidence from scientific research has documented that ocean noise also causes marine mammals to change the frequency or amplitude of calls, decrease foraging behavior, become displaced from preferred habitat, or increase the level of stress hormones in their bodies. Loud noise can cause permanent or temporary hearing loss. Underwater noise threatens whale populations, interrupting their normal behavior and driving them away from areas important to their survival. Increasing evidence suggests that exposure to intense underwater sound in some settings may cause some whales to strand and ultimately die.

Biological Evaluation at 17. Despite this evidence, EPA concluded that "the noise emitted from the engines and generator would not significantly add to the frequency or intensity of ambient sound levels in the proposed action area and are not expected to be different from other vessels operating in federal waters." Biological Evaluation at 23. However, EPA failed to analyze how traffic is likely to increase. EPA also failed to quantify the frequency and intensity of sounds caused, directly and indirectly, by the VE Project. The claim that sounds are not expected to be "different" is not sufficient to demonstrate that the VE Project will not adversely affect or even jeopardize endangered whales. The noise, even if it is similar to other noise pollution in the ocean, can still adversely impact endangered whales and jeopardize their survival and recovery. Indeed, the existing noise pollution in the ocean is a leading threat to these species. NMFS, Endangered Status of the Gulf of Mexico Bryde's Whale, 84 Fed. Reg. 15446, 15485 (2019). NMFS found that current exposure to anthropogenic noise, primarily by vessels, commercial shipping traffic, and seismic surveys can increase stress in whales, mask communication and environmental cues, lead to reduced foraging and reproductive success, and lead to habitat displacement. 84 Fed. Reg. at 15466. NMFS explained that the Gulf of Mexico Bryde's whale "is continuously being exposed to noise at levels that would cause acute auditory injury, or result in behavioral effects even if the species was temporarily exposed." 84 Fed. Reg. at 15466. In addition, "high background noise reduces the ability of acoustically sensitive species, such as the [Gulf of Mexico]

Bryde's whales, to detect and interpret critical acoustic cues, such as those used for communication, detecting predators or prey, or navigation, even if they do not exceed the thresholds for behavioral effects used to evaluate impulsive sound." 84 Fed. Reg. at 15466. Thus, EPA erred by failing to consider and quantify the risk that noise caused by the VE Project will adversely affect whales in the area. EPA's failure to consider this is crucial error because whales in the area, such as the Gulf of Mexico Bryde's whales, are "one of the most endangered whales in the world."[25] Thus, "[a]ny human induced mortality can have population-level consequences." 84 Fed. Reg. at 15463 (citing Laist, D. W., Knowlton, A. R., Mead, J. G., Collet, A. S., & Podesta, M. (2001) Collisions between ships and whales. Marine Mammal Science, 17(1), 35-75; Jensen AS, Silber GK (2004) Large whale ship strike database. NOAA Technical Memorandum NMFS-OPR-25). The Recovery Plan also states that "aquaculture may be a major threat to the species." Bryde's Whale Recovery Outline.[26]

In addition, EPA's continued reference to "recorded incidents" from other projects in different environments to conclude that the VE Project will not impact listed species is not the best available science. *See* Biological Evaluation at 24 ("there have been no recorded incidents of entanglement from ESA-listed marine mammal species interacting with a permitted commercial-scale marine aquaculture facility in Hawaii").[27] EPA's statement is misleading for at least two reasons. First, incidents are likely to go unreported. *See* 84 Fed. Reg. at 15462 ("The number of reported vessel collisions with Bryde's whales in the Gulf of Mexico and elsewhere worldwide, with the exception of New Zealand, is likely underestimated because

[25] https://www.fisheries.noaa.gov/feature-story/noaa-lists-gulf-mexico-brydes-whales-endangered.

[26] National Oceanic and Atmospheric Administration, Gulf of Mexico Bryde's Whale Recovery Outline, *available from* https://www.fisheries.noaa.gov/resource/document/gulf-mexico-brydes-whale-recovery-outline.

[27] Citing Blue Ocean Mariculture, LLC. 2014. Final Environmental Assessment for a Production Capacity Increase at the Existing Open Ocean Mariculture Site off Unualoha Point, Hawaii.

[Gulf of Mexico] Bryde's whales are an offshore species and have low carcass detection and recovery rates compared to more coastal species."). NMFS explained that a study "estimates that as few as 2 percent of cetacean deaths in the Gulf of Mexico are actually detected." 84 Fed. Reg. at 15462, 15478[28] ("Ship strikes pose a 'high' severity threat to the [Gulf of Mexico] Bryde's whale with 'high' certainty.").

Second, relying on reported incidents from previous projects in different locations is also problematic because those projects did not involve the same species. In fact, the only whale species considered in the project that EPA cited was the Humpback whale. In contrast, here, the blue whale, fin whale, Gulf Bryde's whale, sperm whale, and sei whale are all potentially within the action area for the VE Project.

2. EPA failed to consider and incorporate degraded baseline conditions into its analysis.

Friends of Animals and others notified EPA that it may not simply list past and current activities impacting the area. It must also consider how all these factors interact with one another, and how the VE Project could exacerbate the problems already facing the area. FoA Comment at 6-7. EPA has deemed the Gulf of Mexico "critical" to improve water quality and any additional pollution could have significant impacts to the area. FoA Comment at 6-7. However, EPA failed to consider how the VE Project would contribute to existing pollution and threats facing ESA-listed species.

The EPA erred by repeatedly evaluating the effects of the VE Project as compared to other actions in the Gulf of Mexico, rather than, "focusing its analysis on whether the action effects, when added to the underlying baseline conditions, would tip the species into jeopardy." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv*., 524 F.3d 917, 929 (9th Cir. 2008).

[28] Citing Williams, R., Gero, S., Bejder, L., Calambokidis, J., Kraus, S. D., Lusseau, D., ... & Robbins, J. (2011). Underestimating the damage: interpreting cetacean carcass recoveries in the context of the Deepwater Horizon/BP incident. *Conservation Letters*, *4*(3), 228-233.

In fact, EPA admits that "[m]ore information on the short- and long-term impacts of the DWH [Deep Water Horizon] blowout is needed to assess whether the additional stress caused by the DWH blowout has resulted in a cumulative effect beyond current thresholds." Final EA at 50. Then, EPA concludes that the VE Project would have minimal or negligible impacts "[g]iven the **relatively** small footprint of the VE Project in context of the previously discussed impacts," such as the Deepwater Horizon Oil Spill. Final EA at 56 (emphasis added). *See also* Final EA at 64 (claiming that "the anticipated impacts associated with the VE Project "include **relatively** minimal impacts to physical, biological, socioeconomic resources"); Response to Comments at 38 ("Additionally, the navigational light from the mooring vessel or buoys are not anticipated to be significant or provide increased light exposures **in comparison** to other industries in the Gulf.") (emphasis added). Even if the VE project will have a "relatively" small footprint, it could still push some species into extinction. It was irrational for EPA to conclude that the impacts would be negligible or minimal without analyzing the baseline condition or how the VE project could contribute to the decline of species that are already on the brink of extinction due to other events, such as the DWH blowout or other baseline pollution. As explained by the Ninth Circuit, if an agency merely compares the effects of the proposed action to the risk posed by baseline conditions, "a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 930 (9th Cir. 2008); *see also Ore. Natural Desert Assoc. v. Jewell*, 840 F.3d 562, 568 (9th Cir. 2016) (finding that establishment of a baseline is a "practical requirement in environmental analysis often employed to identify the environmental consequences of a proposed agency action.").

Finally, EPA completely failed to quantify the actual impact of the VE Project and how it could affect ESA-listed species' chances of survival and recovery. In fact, there is no analysis in the Biological Evaluation of how the VE Project could impact the recovery of

ESA- listed species. *Nat'l Wildlife Fed'n*., 524 F.3d at 936 ("It is only logical to require that the agency know roughly at what point survival and recovery will be placed at risk before it may conclude that no harm will result from 'significant' impairments to habitat that is already severely degraded."),

3. EPA erred by failing to consider the impact of the VE Project on HABs and ESA-listed species.

Friends of Animals notified EPA that the VE Project is likely to contribute to, and exacerbate, harmful algal blooms (HABs) which can adversely affect and jeopardize the survival and recovery of ESA-listed species. FoA Comment at 13. In its response to comments, EPA acknowledged that commentors notified it that "nutrients from the offshore fisheries, and the distortion of nutrient ratios, result in an increased risk from toxic blooms, both in their frequency of occurrence and their geographic extent." Response to Comments at 23.

However, EPA failed to consider, or even attempt to quantify, how the VE Project would contribute to HABs and impact ESA-listed species. EPA failed to rely on the best available science, as is required by the ESA. 16 U.S.C. § 1536(a)(2). EPA acknowledged its conclusion that "no good scientific evidence is available to suggest that macronutrients and micronutrients from fish farming is related to the occurrence of red tides" was misleading. In particular, EPA cited work by Professor Graham Harris as support for its conclusion. However, when notified how his work was being cited by EPA, Professor Harris responded that "there is an extensive international literature on the stimulation, growth and harmful effects of what are called HABs - Harmful Algal Blooms - many of them, like the dinoflagellate Red Tides are toxic. All are stimulated by increased nutrient loads." Response to Comments at 24.

Rather than rely on the best available science and consider the impact of the VE Project on HABs, EPA merely dismissed the issue by claiming that "there is not enough quantitative evidence to conclude that marine aquaculture, or the proposed fish farm, can

be directly linked to the occurrence of *K. brevis*." Response to Comments at 24. EPA's refusal to consider how the VE Project will contribute to and exacerbate HABs is clearly erroneous for several reasons. First, EPA errs as a matter of law by dismissing the effect of HABs because there allegedly is "not enough quantitative evidence." Response to Comments at 24. The conclusion regarding the impacts to threatened and endangered species must be based on the best available science, rather than requiring conclusive evidence. 16 U.S.C. § 1536(a)(2); 16 U.S.C. § 1533. Moreover, if additional data would provide a better information base from which to formulate a biological opinion, the consulting agency (FWS or NMFS) may request an extension of formal consultation so the action agency can obtain additional data to determine how or to what extent the action may affect listed species or critical habitat. 50 C.F.R. § 402.14(f); FWS and NMFS, Endangered Species Consultation Handbook (March 1998) at 4-6. Here, the best available evidence suggests that the VE Project would contribute to HABs and impact threatened and endangered animals. For example, EPA admits that 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." ODCE at 35. Further, the EA acknowledges that both phosphorus and nitrogen from the facility may cause excess growth of phytoplankton and lead to aesthetic and water quality problems. Final EA at 15. Thus, EPA cannot dismiss this information by claiming that "quantitative direct links to marine aquaculture are lacking in the scientific literature." *Id*. at 15.

Second, EPA erred in determining that it could ignore HABs merely because the VE Project would not be the "sole" cause of HABs. Response to Comments at 22, 23. EPA relies on a quote from the Florida Fish and Wildlife Conservation Commission that "[n]o single factor causes blooms of *K. brevis*. Blooms form as a result of the interactions between biology, chemistry, and ocean currents that unite nutrients with light and carry red tide to the beach." Response to Comments at 24. However, even if no single factor causes HABs,

EPA still has an obligation to consider how the VE Project will contribute to HABs. 50 C.F.R. § 402.02. EPA's failure to consider how the VE Project would impact HABs and ESA listed species is significant, especially given the fact that the other conditions necessary for HABs are already present and HABs could adversely affect and jeopardize threatened and endangered species. For example, in the severe Florida red tides of 2005 and 2006, at least 179 loggerhead sea turtles died.[29] Other ESA-listed species are also likely to be harmed by the VE Project and its contribution to HABs. *See, e.g.,* 84 Fed. Reg. at 15475 (Gulf of Mexico Bryde's whale); Recovery Plan Loggerhead Sea Turtle at I-62; FoA Comment at 13.

Third, EPA erred by dismissing the impact of the VE Project and HABs based on the claim that the impact could be small in comparison to other pollution. EPA stated that "[d]ue to the **relatively** small fish biomass production estimated for this demonstration and the limited discharges other than fish food and fecal matter, the volume and constituents of the discharged material are not considered sufficient to pose a significant environmental threat." Response to Comments at 23 (emphasis added). However, it is a legal error to conclude that the VE Project does not pose a significant threat merely because the pollution may be small in comparison to other pollution in the Gulf. *Nat'l Wildlife Fed'n,* 524 F.3d at 929 (9th Cir. 2008). Given the Gulf of Mexico's fragile ecosystem and the threats facing listed species, even a small event could have a significant impact on the species survival and recovery. For example, in its determination that the Gulf of Mexico Bryde's whale is endangered, NMFS found that HABs are considered a threat to the critically endangered whale and that "a HAB-induced mortality of a single breeding female would significantly degrade the status of the population." 84 Fed. Reg. at 15475.

[29]National Centers for Coastal Ocean Science, Metabolism and Physiology of Red Tide Toxins in Turtles, *available from* https://coastalscience.noaa.gov/project/metabolism-physiology-red-tide-toxins-turtles/#:~:text=Severe%20blooms%20result%20in%20mass,of%20protected%20and%20endangered%20species.&text=For%20example%2C%20in%20the%20severe,and%20Kemp's%20ridley%20sea%20turtles.

C. EPA failed to comply with the National Environmental Policy Act.

1. EPA erred by concluding there was no significant impacts.

The significance of the VE Project demands that EPA conduct an EIS. Several factors under 40 C.F.R. § 1508.27(b)(4)-(9) show that this unique, precedent-setting federal action is significant. FoA brought this to EPA's attention in its initial comment for the Draft EA. FoA Comment at 5.

Strikingly, EPA's response to these comments were essentially that the public should feel satisfied that *any* NEPA compliance was done at all. EPA believes that it did not need to pay any attention to NEPA concerns. It stated that "EPA was not required by law to prepare any NEPA document." Response to Comments at 28. At the same time, EPA also admits that "environmental impacts… are not well known because the [VE Project] would be the first aquaculture facility to operate and discharge in federal waters." *Id*.

In short, the VE Project is significant because it involves several of the statutorily defined factors: the degree to which effects on the environment are controversial, the degree to which the effects are uncertain or involve unknown risks, the degree to which the action may establish a precedent, and whether the action is related to other actions with individually insignificant but cumulatively significant impacts. 40 C.F.R. § 1508.27. EPA brushes these concerns aside without providing reasons, simply stating "EPA found no evidence… that leads the agency to determine that the impacts of the proposed action are significant." Response to Comments at 28.

2. EPA failed to give a hard look to the cumulative impacts.

EPA failed to consider the impact of the VE Project on the expansion of the aquaculture industry in the Gulf of Mexico, as well as the cumulative impacts of aquaculture industry. Friends of Animals brought this to EPA's attention in its initial comment. FoA Comment at 6. On one hand, EPA admits that the permit applicant, Ocean Era, Inc. describes the VE Project as "pioneering" and a "demonstration." The co-founder of Ocean Era, Inc. states that he wants to work with the community about "how this industry might move forward."

Response to Comments at 29. EPA also stated in its response that "EPA understands that it is reasonably foreseeable that the marine aquaculture industry may expand in the Gulf." *Id*. This foreseeability is made even more clear by Executive Order 13921, entitled "Promoting American Seafood Competitiveness and Economic Growth."[30] This Executive Order claims that an aquaculture industry in the United States is necessary because "America needs a vibrant and competitive seafood industry" in order to "contribute to the American economy."[31] Additionally, the Gulf of Mexico has been deemed an Aquaculture Opportunity Area (AOA) by NOAA.[32] It is no longer uncertain or speculative that the Aquaculture industry will expand in the Gulf of Mexico; being named an AOA is "a big step forward." *Id*.

Yet, EPA skirts its statutory responsibility by continuing to claim that "it [is] not reasonable to consider future projects that are speculative." Response to Comments at 29. EPA seems to require an active permit application in order for a project to not be speculative. Yet, this same logic could apply to each individual future aquaculture facility in the Gulf of Mexico. This is exactly why the cumulative impacts requirement exists within NEPA: so that agencies may not only look at the specific action at hand. Friends of Animals is concerned that EPA will continue to approve permits for aquaculture facilities while dismissing any future possibilities.

3. EPA failed to give a hard look at the possibility of harmful algal blooms.

a. Excess nitrogen and phosphorus contribute to HABs.

In its response to comments, EPA attempts to obscure that science has conclusively shown HABs only need three things to thrive: sunlight, warm temperatures, and nutrients (specifically nitrogen and phosphorus, the two most expected nutrient discharges).[33]

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[30] Exec. Order No. 13921, 85 Fed. Reg. 28471 (May 12, 2020).

[31] *Id*.

[32] NOAA Fisheries, *NOAA Announces First Two Aquaculture Opportunity Areas under Executive Order on Seafood*, https://www.fisheries.noaa.gov/feature-story/noaa-announces-regions-first-two-aquaculture-opportunity-areas-under-executive-order (Aug. 20, 2020).

[33] Sea Grant Florida, *Understanding Florida's Red Tide* (Dec. 12, 2018), https://www.flseagrant.org/news/2018/12/understanding-floridas-red-tide.

Response to Comments at 23. The VE Project will discharge nitrogen and phosphorus into the Gulf of Mexico, and thus contribute to HABs. Friends of Animals brought this to EPA's attention in its initial comment. FoA Comment at 14.

EPA erred by ignoring the fact that, even if these nutrients may not be the sole cause of an HAB, they can still undoubtedly *worsen* the existing blooms. EPA completely failed to take a hard look at how the VE Project is likely to contribute to, and exacerbate, HABs. To cast doubt upon on how the VE Project will worsen HABs, EPA states that "[i]n Maine and Washington, factors other than nutrients, such as light availability and water temperature, often control natural variability in primary productivity." Response to Comments at 22. The VE Project is not located in Maine or Washington.

The EPA's comparisons to water temperatures in other areas, let alone the two northernmost states in the contiguous United States, is not the hard look required by NEPA. *Nat. Res. Def. Council, Inc. v. Morton*, 458 F.2d 827, 838 (D.C. Cir. 1972). Maine has a yearly high of 65 degrees Fahrenheit in its offshore waters, and even during the hottest time of the year can sink to 52 degrees Fahrenheit.[34] Washington's waters are even colder.[35] In the Gulf of Mexico, temperatures in Florida rarely sink *below* 68 degrees Fahrenheit, and remain above 75 degrees Fahrenheit for most of the year.[36]

So, while it is true that non-nutrient factors play a role in HABs in the two northernmost states of the contiguous United States, it is misleading to suggest that such factors would be an issue in the consistently warm and sunny Gulf of Mexico. In fact, EPA had to retract an outright falsehood and admit that "all [HABs] are stimulated by increased nutrient loads." Response to Comments at 24. Moreover, EPA admits that that "once red tides are transported inshore, they are capable of using man-made nutrients for their growth." *Id*. EPA cannot avoid taking a hard look at the impact of the VE Project, as it did

[34] National Oceanographic and Atmospheric Association, *Water Temperature Table of the Northern Atlantic Coast*, https://www.ncei.noaa.gov/access/data/coastal-water-temperature-guide/natl.html.
[35] National Oceanographic and Atmospheric Association, *Water Temperature Table of the Pacific Coast*, https://www.ncei.noaa.gov/access/data/coastal-water-temperature-guide/npac.html.
[36] National Oceanographic and Atmospheric Association, *Water Temperature Table of the Eastern Gulf of Mexico*, https://www.ncei.noaa.gov/access/data/coastal-water-temperature-guide/egof.html.

here, by merely stating that the not-yet-extant aquaculture facility has not been linked to past HABs. *Nat. Res. Def. Council,* 458 F.2d at 838.

b. EPA failed to take a hard look at the use and impact of pharmaceuticals.

EPA made a clear error under NEPA when they failed to consider the harmful effects of antibiotic resistance through excessive application of pharmaceuticals. EPA also failed to provide any sort of mitigation measures for pharmaceuticals as outlined in the implementing regulations of Council of Environmental Quality (CEQ) guidance. 40 C.F.R. Parts 1500-1508. In its response to comments, EPA re-stated its claim that the Velella Epsilon applicant says antibiotics will "likely not be used." Response to Comments at 33. However, EPA immediately follows this by saying that no fewer than three separate drugs have been approved for use. *Id*.

The NPDES permit contains no limits as to the use of antibiotics. This is in contrast to EPA's own guiding documents, which state that NPDES permits "**will contain limits** on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people's health."[37] The NPDES permit does not contain limits. It only takes the applicant's word for granted that no antibiotics are currently planned for use. No approval is necessary for use; the applicant must only report how much antibiotics have been pumped into the surrounding area **after** it has already occurred. EPA insinuates two factors that will help control the inevitable use of antibiotics: label directions and veterinarian guidance. *Id*. at 14, 34. These factors speak to the efficacy of antibiotics on the fish, but not to the safety of adding pharmaceuticals in the open ocean. They do not regulate, ensure, or limit the amount of antibiotics used. EPA must take a hard look at the impact of antibiotics used before it authorizes any action.

EPA also failed to abide by NEPA when it did not account for the environmental effects of pharmaceutical use in the VE Project. *Department of Transportation. v. Pub.*

[37] Environmental Protection Agency, *NPDES Permit Basics*, https://www.epa.gov/npdes/npdes-permit-basics (last updated July 12, 2019) (emphasis added).

Citizen, 541 U.S. 752 ,756-57 (2004). Simply stating that it believes pharmaceutical use is "unlikely" does not satisfy this requirement.

RELIEF SOUGHT and REQUEST FOR ORAL ARGUMENT

Friends of Animals respectfully requests that the EAB hold the Permit invalid and remand it to EPA to correct the deficiencies described above. *See* 40 C.F.R. § 124.19(l)(2)(iii). EPA must provide a thorough explanation of its process and its ultimate finding. If EPA cannot make an affirmative finding, based on the evidence before it, that the discharge will not significantly impact the surrounding environment, jeopardize threatened or endangered species, or cause unreasonable degradation, then it must prohibit the discharge.

Petitioners also request oral argument before the EAB on this Petition because they believe that oral argument will be of assistance to the EAB.

Date: October 30, 2020

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STATEMENT OF COMPLIANCE WITH WORD LIMITATION

In accordance with 40 C.F.R §§ 124.19(d)(1)(iv) and (d)(3), I hereby certify that this petition does not exceed 14,000 words. Not including the cover page, tables, signature block, statement of compliance with word limitation, and certificate of service, this petition contains 13,541 words (including footnotes), as counted by Microsoft Word.

CERTIFICATE OF SERVICE

I, Jennifer Best, hereby certify that on October 30, 2020, I served a true and correct copy of the foregoing Petition for Review to the following by email and through the EAB's e-filing system. A hard copy has also been mailed to the Permit Applicant and EPA Regional Administrator.

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