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**HUMANE SOCIETY
LEGISLATIVE FUND™**



June 3, 2021

US Army Corps of Engineers
New Orleans District
Attn: CEMVN-OD-SE, MVN-2012-2806-EOO
7400 Leake Avenue
New Orleans, LA 70118

Submitted via email to: CEMVN-Midbarataria@usace.army.mil

To whom it may concern:

On behalf of the Animal Welfare Institute, the Center for Biological Diversity, Cetacean Society International, the International Marine Mammal Project of the Earth Island Institute, the Humane Society of the United States, the Humane Society Legislative Fund, NY4Whales, Ocean Conservation Research, and the Oceanic Preservation Society, we submit these comments to the Louisiana Trustee Implementation Group (TIG) and the US Army Corps of Engineers, New Orleans District (Corps) on the Draft Restoration Plan and Environmental Impact Statement: Mid-Barataria Sediment Diversion. 86 FR 12915 (Mar. 5, 2021), 86 FR 22397 (Apr. 28, 2021). We thank the Corps and the TIG for this opportunity to comment. We note that before preparing these comments, we reviewed the Draft Environmental Impact Statement (DEIS) and associated documents and attended the online presentation, “Effects of Low Salinity Exposure on Bottlenose Dolphins,” hosted by the Marine Mammal Commission (MMC) on March 23, 2021.¹

In the context of the Mid-Barataria Sediment Diversion, our organizations have worked together in the past to advocate for protections of the marine mammals affected by this project, particularly the Barataria Bay Estuarine System (BBES) Stock of dolphins. This project's significant impact on this stock are the reason for, and will be the focus of, this letter. In submitting these comments, we also aim to dispel prior media mischaracterizations indicating that "the NGO community" is fully supportive of this project.² We support Gulf of Mexico restoration, but in light of the information presented in the DEIS, we cannot support the proposed sediment diversion.

As a technical matter, we note that the National Park Service website provided for online public comment is less than straightforward and does not allow for the uploading of documents. In order to receive a broad range of stakeholder comments while also making the process seamless, it would have been ideal for the Corps and the Louisiana TIG to host this comment collection through a more user-friendly federal website such as *regulations.gov*. We thank the TIG for adding an email option for transmission of comments when it extended the comment period deadline.

I. Introduction

At the outset, we acknowledge the great need for restoration of the Mississippi River Delta (MRD) ecosystem, and within that, the Barataria Bay Estuary. The Barataria Basin has lost more than 276,000 acres of land since the 1930s, and the Basin's wetlands were the most heavily affected by the Deepwater Horizon (DWH) oil spill, which hastened the severe land loss trend threatening Louisiana's estuaries. The oil spill and response activities also accelerated the rate of wetland loss in the area.³

The purpose of this project is "to restore for injuries caused by the DWH oil spill by implementing a large-scale sediment diversion in the Barataria Basin that would reconnect and re-establish sustainable deltaic processes between the Mississippi River (MR) and the Barataria Basin through the delivery of sediment, fresh water, and nutrients to support the long-term viability of existing and planned coastal restoration efforts." DEIS Abstract. See also, DEIS at 1.3–1.4; DEIS Appendix R at 1-2.

Yet the DWH oil spill is one of multiple events caused by humans that have damaged the MRD. Over time, humans have altered and damaged this environment in numerous substantial ways. As the Corps and TIG have acknowledged, the Barataria Basin has been altered by: storm and hurricane events; erosion, subsidence and sea-level rise (all exacerbated by global climate change); industrial, commercial and residential development; as well as flood risk management and drainage efforts. Then in 2019, just one year after a Congressionally-mandated waiver of the Marine Mammal Protection Act (MMPA) was issued for this project (see below), a significant amount of melted snow pack, combined with excessive precipitation within the MR watershed and increased runoff from levee systems and spillways, created such an influx of freshwater runoff into the Gulf of Mexico that an unusual mortality event (UME) of dolphins occurred, in record numbers from Louisiana to Florida. Unfortunately, the State of Louisiana was in the process of leaving the marine mammal stranding response network at this time, leading to a loss in critical data during the UME that would have better illuminated the impacts to this population.

At a cost of up to \$2 billion, the Draft Restoration Plan would implement the Mid-Barataria Sediment Diversion project, which would reconnect the MR to Louisiana's Barataria Basin. The project would restore and sustain a significant amount of wetland habitat—tens of thousands of acres—and the resources that depend on them, over the next several decades. At peak capacity, the proposed preferred alternative would transport up to 75,000 cubic feet per second of freshwater and its sediment and

nutrients—harnessing nature through engineering to re-establish the natural process that originally built Louisiana’s coastal wetlands.⁴

It is a worthy endeavor for the Trustees to attempt to restore the Barataria Basin. Nevertheless, we oppose the project, given the inevitable and devastating impact of the project on the BBES Stock. They will not only be decimated in number through mortality, but their deaths will be agonizing and slow, given how chronic exposure to low salinity affects dolphins and the high likelihood that they will continue to exhibit strong site fidelity throughout the lifetime of the project. This strategic stock’s already poor state and cumulative impacts beyond this project will compound this project’s negative effects. It is extraordinarily unfortunate that should this sediment diversion proceed, the BBES dolphins will pay the price for the past mistakes of humans.

Furthermore, we are deeply disturbed by the fact that in 2018, federal legislation was used to circumvent the standard process required to obtain a waiver of the MMPA, in order to allow this project to move forward despite the major impacts it will have on the BBES Stock. As we further explain below, the Bipartisan Budget Act of 2018, Public Law 115-123 at Title II, Sec. 20201 (hereinafter BBA-18) directed the National Oceanic and Atmospheric Administration (NOAA) to issue a waiver for this project without on-the-record rulemaking before an administrative law judge, and without consideration of the conservation-based factors that the MMPA would have otherwise required. The proposed mitigation and monitoring measures, although required under BBA-18, will do little to offset the harm that awaits the BBES dolphins should this project move forward. We believe this was a powerfully damaging precedent for Congress and the State of Louisiana to set; we strongly urge Congress to never again allow such a waiver.

II. Background on the Barataria Bay Estuarine System Stock of Dolphins

The Northern Gulf of Mexico is home to 21 cetacean species managed as 59 discrete stocks, as well as one sirenian species, the West Indian manatee. DEIS at 3.11. All of these species and stocks are protected under the MMPA. Bottlenose dolphins are currently managed as 37 distinct stocks within the Gulf, most of which are found only in shallower coastal waters. DEIS at 3-141–3-142. Of these 37 stocks, five were considered for potential impact by the proposed project: three bay, sound, and estuary (BSE) stocks: the MRD Stock, the Terrebone Bay/Timbalier Bay Stock, the BBES Stock, and two coastal stocks, the Northern and Western Coastal Stocks. *Id.*

NMFS manages the BBES dolphins as a strategic stock, meaning a marine mammal stock for which the level of direct human-caused mortality exceeds the Potential Biological Removal level (PBR) and which, based on the best available scientific information, is declining and is either already listed under the Endangered Species Act of 1973 [16 U.S.C. 1531 et seq.] (ESA), is likely to be listed as a threatened species under the ESA within the foreseeable future, or is designated as depleted under the MMPA. 16 U.S.C. 1362(19). As the DEIS states, “Strategic stocks are those with declining populations for which the level of direct human-caused mortality exceeds the Potential Biological Removal level (PBR, the maximum number of animals that may be removed from a stock, excluding natural mortality, which allows it to reach or maintain its optimum sustainable population).” DEIS at 3-143. The BBES Stock has an estimated population of 2,071 and is considered strategic. *Id.* at 3-144. They are generally year-round residents, with localized, small usage areas of less than 43.5 square miles, although some individuals’ ranges extend throughout the middle/lower parts of the basin. *Id.* Some BBES dolphins live near the barrier islands and into Gulf of Mexico waters and may overlap with dolphins from the Western Coastal Stock, but the BBES Stock is demographically independent. *Id.* In its 2018 Stock Assessment Report,

NOAA stated “it is plausible” that there are multiple demographically independent populations within the BBES Stock, but further studies are needed to understand habitat partitioning within the bay. *Id.*

The BBES dolphins are known to exhibit high site fidelity, despite periodic or even long-term negative environmental factors. For example, following the DWH oil spill in 2010, the BBES dolphins remained in Barataria Bay despite heavy oiling of their habitat. *Id.* at 4-437. The DWH oil spill caused a minimum of 850 miles of shoreline oiling in coastal Louisiana, with the most widespread oiling occurring in Barataria Bay salt marshes and resulting in adverse impacts on aquatic resources such as marsh vegetation, intertidal biota, and shoreline erosion. *Id.* at 3-74. The BBES dolphins were the hardest hit amongst the Gulf of Mexico dolphins following the DWH spill, having exhibited an increased rate of lung disease and other illnesses over the past decade.⁵ Therefore, it is a near certainty that the BBES dolphins will not leave Barataria Bay to escape the low salinity facing them once the project becomes operational.

Environmental factors such as salinity and temperature influence bottlenose dolphin habitat, with one model indicating an optimum foraging suitability is water temperatures in the 68 to 75 degree Fahrenheit (20 to 24 degree Celsius) range, about 6/mg/L dissolved oxygen, turbidity in the 20 to 28 NTU range, salinity of about 20 ppt, distance from shore in the 656–1,650-foot (200–500 meter) range, and water depths between 13 and 20 feet (4 to 6 meters). *Id.* at 3-148.

III. Impacts on BBES Stock of Dolphins from Construction and Operation

Table 2.9-1 summarizes the project’s impacts by alternative. For marine mammals, the construction of this project is going to cause “negligible to minor, temporary, indirect, and adverse impacts on bottlenose dolphins from construction noise and dredging.” DEIS at 2-75, Section 4.11. The operation of this project, however, is going to cause “major adverse impacts on BBES dolphins and dolphin habitat (due mostly to salinity) that would continue throughout the lifetime of the Project. Immediate decreases in salinity levels within the BBES Stock area, which would persist throughout the analysis period, would cause permanent, major adverse impacts on BBES dolphin health, survival and reproduction. Dolphins north of the Barrier Islands would be especially adversely impacted, while Barrier Island-associated dolphins would be less-adversely impacted; however, all groups would be more adversely impacted than compared to conditions under the No Action Alternative. Based on the projected decreases in survival rates due to prolonged low-salinity exposure, there would be a substantial reduction in population numbers.” DEIS at 2-75–2-76, Section 4.11. With the exception of the No Action Alternative, the provided alternatives “would have substantially similar impacts.” *Id.*

a. Construction Impacts from Applicant’s Preferred Alternative

Although the primary mode of take will be from the decreased salinity once the diversion is operational, auditory impacts will be ongoing for approximately 3.5 years during the project’s construction. “Pile driving, dredging and vessel noise calculations identify adverse behavioral effects on marine mammals within a large [zone of influence] during construction.” DEIS at 4-436. Given the land masses present in the vicinity of the construction areas, pile driving and dredging sounds are not anticipated to propagate beyond about 2 miles. Increased noise from these sources is therefore not likely to affect areas that are highly used by dolphins. Consequently, the DEIS states that “based on the limited PTS [zone of influence], no noise-related injury on dolphins would be anticipated from construction.” *Id.*

However, noise impacts from construction are in fact possible, due to increased vessel traffic transiting throughout the project area. We therefore question the DEIS claims that noise-producing construction activities have minimal overlap with the BBES dolphins' range and thus are anticipated to have negligible to minor, temporary, indirect and adverse impacts on bottlenose dolphins. DEIS at 4.11.4. We want to take this opportunity to note the possibility that the increased exposure to underwater noise due to increased vessel traffic in Baratara Bay during the construction period will in all likelihood exacerbate the dolphins' stress and health problems, setting them up for a harder fall once the diversion is operational. The increased vessel traffic also, of course, introduces an increased risk of collision.

b. Operational Impacts of Applicant's Preferred Alternative

Based on literature and case study review; the Delft3D Basinwide Model; the BBES Stock survey and existing data from previous BBES Stock surveys; and a number of other sources of data, the DEIS analyzed the expected impact on the BBES dolphins. DEIS at 4.11.3. The analysis period spans from 2020 to 2070, with the expectation that by 2070, approximately 12,700 acres of wetlands will be created and sustained. *Id.* at 4-446. "Overall, the Applicant's Preferred Alternative would have immediate, major adverse effects on BBES dolphin habitat (due mostly to low salinity) that would continue throughout the lifetime of the proposed Project." *Id.*

While bottlenose dolphins can tolerate some level of exposure to lower-than-optimal salinity, large scale changes in salinity, including longer-term exposure, lead to physiological effects and survival impacts. "The barrier island dolphin usage pattern would see an 8 ppt reduction in salinity from March to May, and the model projected that they would experience between 0 to 5 ppt waters from April to June." *Id.* at 4-447. "The following decades show a similar trend, but the length of time dolphins would be exposed to low salinity would increase and salinity values would get even closer to 0 ppt compared to the No Action Alternative." *Id.* Thus, under the Preferred Alternative, "immediate and permanent major adverse impacts on BBES dolphin habitat and environment" can be expected. *Id.* at 4-466.

Prolonged exposure to low salinity without breaks can rapidly (within 24 to 72 hours) lead to the formation of skin lesions, sores, and sloughing. The compromised skin barrier can in turn lead to overgrowth of external mats comprised of fungi, algae, and/or bacteria. This deterioration may cause secondary infections and extracellular uptake of water. "Recovery may require extended periods of time depending on the nature of the lesion and whether the animal is subject to other stressors," which we know these dolphins are. *Id.* DEIS at 4-429, *see also Id.* at 4-466.

Ingestion of low-salinity water may also alter intracellular and extracellular water absorption in the gut, contributing to osmotic imbalance, cellular damage and susceptibility for localized and/or systemic infections. *Id.* at 4-466–4-467. Physiological and pathological changes such as electrolyte or hormone imbalances, decreased osmolality, over-hydration, and cellular hemolysis/anemia may occur after freshwater uptake by the skin or gut lining. Osmotic imbalance, cellular damage, and/or secondary infection can change from mild to severe, leading to systemic impacts such as hemolysis, anemia, septicemia/toxemia, and cerebral or pulmonary edema, which may lead to death. *Id.* at 4-467. After about 10–15 days of exposure to low-saline waters, dolphins' survival starts to be affected. The time to death has been calculated at a mean of 62 days for a relatively poor environment and 75 days for a good environment.⁶ As noted above, this manner of death is prolonged and agonizing, the epitome of inhumane.

These dolphins exhibit high site fidelity, continuously, even after prior periods of lower salinity. Therefore, as we noted above, we cannot expect BBES dolphins to move out of the Barataria Basin or otherwise shift their range following purposeful introduction of freshwater into their environment. DEIS at 4-430. In addition to the DWH oil spill, other incidents have shown this strong site fidelity. *Id.* at 4-468–4-475.

The models used show that while under the No Action Alternative, simulated BBES dolphins have an 89 percent likelihood of surviving in any given year from 2020 to 2030, under the Applicant’s Preferred Alternative, simulated BBES dolphins have only a 59 percent likelihood of surviving any given year from 2020 to 2030 based on the projected decreased salinity levels from the proposed project. *Id.* at 4-475. See also Table 4.11-5, Projected Mean Annual Survival Rates Due to Low-salinity Exposure for a Simulated BBES Dolphin Population under the No Action Alternative and Applicant’s Preferred Alternative. Under no circumstances is such a shift in survivorship sustainable and indeed merely the first year of operation of the diversion is likely to almost halve the BBES dolphin population size, given the other stressors they face and the additional possibility of impacts such as prey shifts from the freshwater influx. Clearly the projected increased mortality from the project far exceeds PBR for this impaired stock, but even a robust stock of dolphins could not sustain such mortality.

Further, a recent analysis from the University of St. Andrews shows that after 50 years of sediment diversion as proposed, three of the four Barataria Bay dolphin population strata will be functionally extinct.⁷ The only remaining dolphins will be along the barrier islands and even they will be severely reduced. The model predicts a total of 143 dolphins remaining after 50 years of sediment diversion operation as outlined in the preferred alternative. By comparison, given the potential rate of recovery, there would be approximately 3300 dolphins at the end of the same time period under the no action alternative.⁸

c. The 2019 Unusual Mortality Event

In 2019, just one year after the passage of BBA-18, the MR watershed experienced its wettest spring in 126 years. A significant amount of melted snow pack, combined with precipitation within the watershed and increased water flow from the levee systems and spillways, created such an influx of freshwater runoff into the Gulf of Mexico that a die-off ensued. A reported 337 dolphins stranded and died from Louisiana to Florida, and the National Marine Fisheries Service (NMFS) declared a UME. DEIS at 4-470. Six different stranding networks covered the region of the UME. Unfortunately, at the same time dolphins were washing up on the beach, the Louisiana Department of Fish and Wildlife was winding down its involvement in the marine mammal stranding network. While a group called Audubon Coastal Wildlife Network attempted to fill the void, by the time transition was occurring, critical data were missed. It is estimated that only 33% of stranded animals were reported for Louisiana during the whole of the 2019 UME.⁹

d. Multiple Threats Mean More Dolphins Will Die Than Anticipated

In its discussion of multiple stressors on marine mammals, the DEIS states, “Given the number of and various types of threats marine mammals face in the northern Gulf of Mexico, and the potential for interactive effects of these threats, it can be even more difficult to determine impacts from multiple stressors.” DEIS at 4-428. The document goes on to explain that while the DEIS looked at how “multiple stressors may affect impact assessments at a qualitative level,” “a quantitative assessment of effects or

potential synergistic or antagonistic interactions in a multiple stressor scenario was not undertaken.” *Id.* Models only looked at single years and did not analyze repeated annual exposure to low-salinity water over many years. DEIS at 4-429.

All of these elements, including the possibility that another “wet year” such as 2019 may recur, strongly suggest that there will be a substantially higher individual mortality risk to the BBES dolphins each year than what they will clearly face in just the first year from the initial exposure to freshwater influx. In short, this already unhealthy stock is likely to be even harder hit than the DEIS’s analysis determined, which was devastating even so.

IV. The Marine Mammal Protection Act (MMPA) and Bipartisan Budget Act of 2018 (BBA-18), Public Law 115-123, Title II, Sec. 20201

Section 101(a) of the MMPA establishes a moratorium on the taking and importation of marine mammals and marine mammal products, subject to certain limited exceptions. 16 U.S.C. § 1371(a). However, under Section 101(a)(3), the Secretary “is authorized and directed, from time to time, to determine when, to what extent, if at all, and by what means it is compatible with [the MMPA] to waive the requirements of section 101 [the moratorium] so as to allow taking, or importing of any marine mammal, or any marine mammal product ...” 16 U.S.C. § 1371(a)(3).

Section 101(a)(3)(A) sets the standards for a waiver, including a decision made upon the best available science, in consultation with the MMC, with “due regard” to marine mammal biological factors. The decision must be compatible with the MMPA and must be “assured that the taking of such marine mammal is in accord with sound principles of resource protection and conservation as provided in the purposes and policies of [the MMPA].” In issuing a waiver, the Secretary also must make determinations under sections 102, 103, 104 and 111 of the Act. 16 U.S.C. § 1371(a)(3)(A). Pursuant to Section 103(d), the Secretary shall issue regulations for the take of marine mammals to implement the waiver, based upon the best available scientific evidence and in consultation with the MMC. The take shall not be to the disadvantage of the species or stock, meaning that the take cannot cause a species to fall below its optimum sustainable population, or OSP. It also must be consistent with the purpose of the MMPA. The Secretary is to develop regulations on the record after a hearing before an administrative law judge, also known as formal rulemaking, and make available to the public: a statement of estimated levels of the species and population stocks, a statement of expected impact of the proposed regulations on the OSP of such species or population stock, a statement describing evidence used as the basis for proposing the regulation, and any studies or recommendations related to the establishment of such regulations. These findings are subject to periodic review. 16 U.S.C. § 1373(d).

Waivers of the MMPA are exceedingly rare, and Congressionally-mandated waivers are even rarer. On just two occasions since the MMPA was passed, Congress called for such waivers, in the form of permits, to address bycatch of marine mammals in foreign fisheries.¹⁰ These legislative permits proved to be utter failures of the MMPA’s core principles, as they halted the progress that was being made up to that point under the MMPA’s then-existing fisheries scheme. They cut off the ability of the administrative process to establish science-based limits on marine mammal take in fisheries by applying a burden of proof that the fishers had to meet. The MMPA was later amended substantially to address these problems by creating a new management scheme for marine mammal take by commercial fisheries.

Due to the science-based requirements inherent in the MMPA, at some point in the planning process of the Barataria Bay diversion project, it became apparent that the project would not be able to move forward without a waiver of the MMPA. The waiver process is known for being challenging, time-consuming, and adversarial,¹¹ and the MMPA's conservation bias applies throughout. We presume that the proponents of this project did not feel that this project's timeline could afford a substantial delay, particularly when a waiver at the end of that delay was far from guaranteed. The State of Louisiana therefore set about obtaining a legislative fix, pursuant to BBA-18, which states:

(a) In recognition of the consistency of the Mid-Barataria Sediment Diversion, Mid-Breton Sound Sediment Diversion, and Calcasieu Ship Channel Salinity Control Measures projects, as selected by the 2017 Louisiana Comprehensive Master Plan for a Sustainable Coast, with the findings and policy declarations in section 2(6) of the Marine Mammal Protection Act (16 U.S.C. 1361 et seq., as amended) regarding maintaining the health and stability of the marine ecosystem, within 120 days of the enactment of this section, the Secretary of Commerce shall issue a waiver pursuant to section 101(a)(3)(A) and this section to section 101(a) and section 102(a) of the Act, for such projects that will remain in effect for the duration of the construction, operations and maintenance of the projects. No rulemaking, permit, determination, or other condition or limitation shall be required when issuing a waiver pursuant to this section. (b) Upon issuance of a waiver pursuant to this section, the State of Louisiana shall, in consultation with the Secretary of Commerce: (1) To the extent practicable and consistent with the purposes of the projects, minimize impacts on marine mammal species and population stocks; and (2) Monitor and evaluate the impacts of the projects on such species and population stocks.

See also DEIS at Appendix S, Compliance Documentation. In simple terms, BBA-18 directed NOAA to issue an MMPA waiver for this project without the relevant parties having to go through the standard administrative process that obtaining a waiver entails. *Id.* As a result, on March 15, 2018, the Director of the Office of Protected Resources issued a decision memorandum for the “Waiver of Requirements Under Section 101(a) and 102(a) of the [MMPA] for the Mid-Barataria Bay Sediment Diversion, the Mid-Breton Sound Sediment Diversion, and Calcasieu Ship Channel Salinity Control Measures Projects.” *Id.* The decision memorandum notes that “[t]hrough section 20201, Congress removed NMFS’s discretion and the requirements to consider the statutory factors, provide the required statements, make the required findings, and determine whether issuance of a waiver meets the statutory standards under sections 101(a)(3)(A) and 103,” and “eliminated the agency’s discretion to consider the best available scientific evidence, factors relevant to determining impacts on affected species or stocks, and whether issuance of a waiver and associated takings would be compatible with the MMPA, not to the disadvantage of the affected species and stocks, and consistent with the purposes and policies of the Act.” *Id.*

We appreciate that NMFS consulted with the MMC prior to issuing the waiver as directed by BBA-18. During that consultation, the MMC properly noted that “Although not an obstacle to issuance of this waiver, it remains unclear whether those projects are consistent with other stated purposes and policies of the MMPA, including maintaining marine mammal species and stocks at optimum sustainable population levels and ensuring that species and stocks do not diminish to the point where they cease to be significant functioning elements in the ecosystems of which they are a part.”¹²

In its simplest characterization, the proposed sediment diversion is an ecosystem restoration project.

[T]he Project is anticipated to have major, permanent benefits on wetlands and other U.S. jurisdictional waters in the Barataria Basin. The purpose of the diversion of fresh water, sediments and nutrients into the Barataria Basin is to build, sustain and maintain wetlands and riverine deltaic processes in an area that has been isolated from natural flooding inputs from the Mississippi River. A consistent and large magnitude input of sediment will lead to accumulation of diverted sediments and formation of new sub-areal features available for plant colonization. Direct deposition within existing wetlands contributes to surface accretion helping to offset the effects of sea level rise and subsidence.

DEIS Appendix R at 2. However, as stated above, the nature of the project does not mean it is compatible with all aspects of the MMPA. At the same time, in the sense that this project would be ecologically beneficial, the waiver obtained here is distinguishable from the other legislative waivers of the MMPA that have involved commercial fishing, and thus, ecological exploitation. Nonetheless, BBA-18, the legislative fix utilized to make this diversion project possible, has created a situation where the Corps and the TIG have circumvented a legal process intended to conserve marine mammals and protect ecosystems. This waiver does not even establish a quota for how many dolphin can be taken, including killed, by this project, and yet it is clear that the level of take for this stock will be grossly unsustainable, in clear violation of the MMPA (absent BBA-18). The legislative waiver, quite simply, was Congressional permission to break the law. While this comment is directed as much to Congress as it is to the TIG and the Corps, we want to take this opportunity once again (see above) to insist that this legislative waiver be a one-off occurrence.

V. Mitigation

At the outset, we wish to state that there is no effective mitigation for this project. It will kill and negatively affect the health of BBES dolphins and the applicants and all involved in promoting this project should simply acknowledge this upfront, without equivocation. Any “mitigation” will in reality be monitoring only—monitoring the health impacts and the mortality caused by the low salinity resulting from the project.

We do note, however, that at Sec. 20201(b), BBA-18 requires both minimization of impacts, and monitoring and evaluation of the impacts of the projects, on marine mammal species and population stocks. Whether or not all proponents of this project completely understood this in 2018 is unclear, but the reality that is evident now is that each of the proposed action alternatives is likely to similarly and significantly harm the BBES dolphins, and there is little that the proposed mitigation can actually do to prevent or even minimize this harm.

The Mitigation and Stewardship Plan (Appendix R-1) calls for examination of “operational strategies to minimize (to the extent practicable consistent with the purposes and performance of the project) the Project’s impact on bottlenose [sic]. Given the dynamic conditions of any estuarine system, and the uncertainty around future conditions, the minimization measures will rely on the MBSD Monitoring and Adaptive Management Plan to inform future implementation.” DEIS Appendix R-1 at 6.3.6 (p. 31–32). This plan also calls for statewide stewardship measures, supported by the Louisiana Coastal Protection and Restoration Authority (CPRA), in order to “reduce existing and future threats to BSE and coastal dolphins throughout Louisiana. While these measures may not minimize impacts from the Project on BBES dolphins, they could enhance individual dolphin survival from other anthropogenic stressors.” *Id.* These measures include funding of the statewide stranding program, human interaction/anthropogenic stressor reduction, and contingency funding for UMEs. With respect to anthropogenic threats, the plan

aims to reduce bottlenose dolphin mortalities from rod and reel fishing gear, reduce intentional injury and mortality (e.g. shooting) to bottlenose dolphins, reduce illegal feeding of bottlenose dolphins, and evaluate the potential impacts of noise, vessels, and other direct threats to identify and implement stewardship measures designed to address these threats. *Id.* While laudable goals, there is no explanation in the plan for how they will be achieved, or whether they can even feasibly be achieved (e.g., very few perpetrators of shootings and other targeted vandalism of dolphins in the Gulf of Mexico have been brought to justice¹³).

These and other interactions with humans have affected dolphins and other marine mammals for decades. While some strides have been made by involved industries, governmental bodies, and NGOs, many anthropogenic threats have proven resistant to existing mitigation. Therefore, the Mitigation and Stewardship Plan should provide specifics as to how each goal will be achieved. For example, if the idea behind reducing intentional injury to and mortality of, as well as illegal feeding of, bottlenose dolphins is that with more monitoring teams in place, there will be less opportunity for people to harass dolphins, and if monitors witness such activity then they will be empowered to intervene, the plan should say so.

With respect to mitigation from fishing impacts, it is primarily *commercial* fishing that tends to lead to bycatch of marine mammals. In the Gulf of Mexico, shrimp trawlers would be the primary source of concern for marine mammal bycatch.¹⁴ While rod and reel fishing—often characterized as recreational fishing—can pose a threat,¹⁵ the threat is less significant than that posed by commercial fishing primarily because it is conducted on a smaller scale than commercial fishing.¹⁶ With regard to *evaluation* of potential effects of noise, vessels, and other direct threats, it is unclear what will be *done* with that information. If this plan actually inspires better efforts to protect Gulf dolphins from the multitude of anthropogenic threats they face, it would be a thin silver lining to this proposal that is otherwise exceedingly grim for BBES dolphins.

With respect to Atlantic bottlenose dolphins generally, the Monitoring and Adaptive Management Plan (MAMP) exists to “document changes to the abundance, distribution, population demography, density, survival, health and reproduction of the” BBES dolphins, as well as “their prey, and their habitat that may result from the operation of the Project and resulting low salinity.” DEIS Appendix R-2 at 3.7.3.19 (p. 61–63). The MAMP calls for use of adaptive management strategies, including “a framework for coordinating during operations, and a post-operational commitment to evaluate the ability of diversion operations to be modified to meet project goals while reducing impacts to marine mammals.” *Id.* Monitoring and evaluation under the MAMP will take place for five years pre-operation, followed by ten years during the post-construction period. During the first five years, this framework will involve enhanced stranding response and investigations, capture-mark-recapture surveys, visual assessment surveys, capture release health assessment sessions, tagging, biopsies, prey data, pairing of sensors with eDNA continuous sensors, and baseline dolphin prey and habitat (water quality) monitoring. During the ten year post-construction period, additional measures such as CMR surveys bay-wide will be added to the list. *Id.* Federal and State agencies, NGOs, and academic institutions will be among the parties responsible for the core monitoring team handling data collection for 15 years.

For both of these plans, it is striking that, just when it was about to embark on a series of sediment diversions that will result in significant dolphins deaths, the State of Louisiana pulled itself out of the stranding response business. As Dr. Deming pointed out in her presentation to the MMC, during the transitional period in stranding response monitoring of the UME in 2019, only an estimated 33% of Louisiana dolphin strandings were recorded.¹⁷ Yet in his presentation to the MMC, Mr. Brian Lezina, Chief of Planning for the CPRA, gave the impression that the monitoring program is robust. While we recognize that increased stranding response funding will be available, it is not clear to whom this funding

will be given and thus how effectively the funding will be utilized. What is apparent is that most stranded dolphins in Baratavia Bay will already be dead.

Finally, Section 7 of the Mitigation Measures Environmental Analysis covers mitigation measures for unavoidable impacts on bottlenose dolphins, reiterating various mitigation measures and the enhanced stranding response, but also discussing how the enhanced monitoring will sometimes involve direct contact with distressed animals, in consideration of how marine mammals are directly affected by “close vessel approach, tagging, marking, restraint, handling, capture, transport and relocation, tissue sampling, and other activities associated with monitoring and stranding response.” Appendix R-4 (p. 14–16). This analysis considers the potential effects of this heightened stress “relative to the broader intent of animal rescue measures.” *Id.* We appreciate this analysis of the affects that mitigation and monitoring may have on the dolphins and agree with the overall assessment that in consideration of the broader impact this project will have on the BBES dolphins, as long as conducted with due care, any effects that flow from the enhanced monitoring would be warranted.

VI. The DEIS Provides a Lack of Reasonable Alternatives Under the National Environmental Policy Act (NEPA)

We appreciate that the planning for this project thus far has been a massive undertaking. In his presentation to the MMC, Mr. Lezina stated that “a lot of work and over 30 years of [both state and federal] planning led to this project in this location.” The National Environmental Policy Act (NEPA) process for this project officially began in 2013 with the Notice of Intent to Prepare an EIS. See e.g., DEIS at 1.2.2. However, the most significant decision with respect to which project would be implemented was made via the publication of SRP/EA #3, where the “LA TIG Trustees selected the proposed project as part of a suite of restoration projects that constitutes the Trustees’ preferred alternative for restoring DWH oil spill injuries through restoration in the Baratavia Basin.” DEIS at 1-15.

SRP/EA #3 apparently identified a combination of sediment diversions and marsh creation projects as the preferred restoration strategy for the Baratavia Basin. DEIS Appendix R at 4. A notice of availability for the draft SRP/EA #3 was published in the Federal Register by the TIG on December 8, 2017, a 45-day comment period was held through February 8, 2018, and a public meeting was held in New Orleans on January 24, 2018. DEIS at 1-16 – 1-17. In March 2018, the TIG published a Notice of Availability of the Deepwater Horizon Oil Spill Louisiana Trustee Implementation Group Final Strategic Restoration Plan and Environmental Assessment #3, wherein it identified and, in conjunction with the associated Finding of No Significant Impact (FONSI), selected a restoration strategy. 83 FR 12340 (Mar. 21, 2018). While the public was at least invited to comment on SRP/EA #3, it goes without saying that an EA is not as detailed an analysis as an EIS; we believe the decision that was made via the EA should have been made via an EIS. “The purpose of an EIS is to apprise decisionmakers of the disruptive environmental effects that may flow from their decisions at a time when they ‘retain[] a maximum range of options.’” *Conner*, 848 F.2d at 1446. Taking actions in the interim that could limit those options undermines the purpose and effectiveness of the NEPA process. Thus, while preparing an EIS, an agency cannot make any “irreversible and irretrievable commitment of resources.” *Conner v. Burford*, 848 F.2d 1441, 1446 (9th Cir. 1986). See also *Pacific Rivers Council v. Thomas*, 30 F.3d 1050, 1056-57 (9th Cir. 1994), cert. denied, 115 S. Ct. 1793 (1995) (interpreting identical language in ESA); *Lane County Audubon Soc. v. Jamison*, 958 F.2d 290 (9th Cir. 1992) (ESA). Yet that is precisely what was done *before* the issuance of this draft EIS.

Therefore, we are disenchanted by the lack of meaningful consideration of a reasonable range of alternatives provided in this DEIS, as NEPA requires. 42 U.S.C. §§ 4332(2)(C)(iii), 4332(2)(E) (2006). *Monroe Cnty. Conservation Council, Inc. v. Volpe*, 472 F.2d 693, 697-98 (2d. Cir. 1972) (“The requirement for a thorough study and a detailed description of alternatives, which was given further Congressional emphasis in § 4332(2)(D), is the linchpin of the entire impact statement.”) We are not engineers and we do not purport to have the expertise to be able to recommend particular alternatives to this project. However, it is evident that because the real alternatives decision was made during the review of SRP/EA #3, what this DEIS really provides is two alternatives: the No Action Alternative, and an action alternative—the sediment diversion—with multiple options in terms of the cubic footage of water that will flow through the structure, with or without terrace outfall features.

It is unclear, for example, why the DEIS does not analyze the alternative of dredging sediment directly from the river and pumping it into place. It has been suggested in the media that this method would be expensive and would require regular replenishment.¹⁸ At the same time, such an option might spare the BBES dolphins from the grim fate brought on by the Preferred Alternative, and for that reason alone, it would have been appropriate under NEPA for the Corps and the TIG to analyze such an option *in the DEIS*, subjecting it to thorough environmental analysis and public input.¹⁹ *See also Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000) (“In summary, the comprehensive ‘hard look’ mandated by Congress and required by the statute must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.”) It is incumbent upon the TIG and the Corps to consider more alternatives than what the agencies have contemplated in the DEIS. To this end, we are aware of the MMC’s comments²⁰ on the DEIS and endorse and incorporate its alternatives recommendations by reference.

VII. Conclusion

We are deeply concerned, given the certain death facing many, if not most of, the BBES dolphins over the course of the project, that there is no guarantee the proposed sediment diversion will be sufficient to bring ecological stabilization to Barataria Bay. BBA-18 provides waivers for two additional diversion projects, but the area covered by these projects represents a fraction of the greater MRD. If this project is to move forward, we very much do not want the losses and suffering of these dolphins to be in vain. It is disturbing that we cannot in fact be confident that their sacrifice will result in Barataria Bay restoration.

Therefore, while we reiterate that we recognize the intended benefits of this project for the MRD, it is simply not right or just—and is legally inconsistent with the MMPA—for ecosystem restoration to come at the expense of what will, over time, potentially be the entire BBES Stock of dolphins. It was legally inconsistent for Congress to order NMFS to issue a waiver for this project in order to avoid the thorough science-based assessment that a waiver to the MMPA would have otherwise required. As is evident from the above-referenced information found in the DEIS, an overwhelming number of dolphins will die because of this project, and it will not be quick and painless. The Corps and the TIG should be careful not to “greenwash” any aspects of this project, but instead be clear and upfront about the negative aspects in addition to the ecosystem benefits it could bring. Ultimately the Corps and the TIG should come to the realization that there *must* be a better way forward. If that better way can be determined, everyone involved should take a hard look at that option.

Respectfully submitted,



Georgia Hancock, Esq.
Of Counsel
Animal Welfare Institute



Naomi A. Rose, PhD
Marine Mammal Scientist
Animal Welfare Institute



Miyoko Sakashita
Oceans Director and Senior Counsel
Center for Biological Diversity



David Kaplan
President
Cetacean Society International



Keisha Sedlacek
Director of Regulatory Affairs
Humane Society Legislative Fund



Sharon Young
Senior Strategist, Marine Issues
The Humane Society of the United States



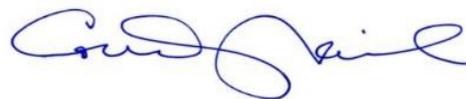
David Phillips, Executive Director
International Marine Mammal Project
Earth Island Institute



William Rossiter
Vice President
NY4Whales



Michael Stocker
Director
Ocean Conservation Research



Courtney Vail
Campaigns Director
Oceanic Preservation Society

Cc: Mel Landry, NOAA Marine Habitat Resource Specialist
Peter Thomas, Marine Mammal Commission

Senators Bill Cassidy and John Kennedy, Louisiana
Representatives Troy Carter, Garret Graves, Clay Higgins, Mike Johnson, Julia Letlow, Steve Scalise, Louisiana

Senator Cory Booker, New Jersey
Senator Richard Blumenthal, Connecticut
Senator Maria Cantwell, Washington
Senator Tom R. Carper, Delaware
Senator Dianne Feinstein, California
Senator Patrick J. Leahy, Vermont
Senator Jeff Merkley, Oregon
Senator Jeanne Shaheen, New Hampshire

Representative Julia Brownley, California
Representative Matt Cartwright, Pennsylvania
Representative Rosa DeLauro, Connecticut
Representative Peter A. DeFazio, Oregon
Representative Raúl M. Grijalva, Arizona
Representative Jared Huffman, California
Representative Marcy Kaptur, Ohio
Representative Chellie Pingree, Maine

¹ Effects of Low Salinity Exposure on Bottlenose Dolphins Webinar, Meeting of the Marine Mammal Commission and Committee of Scientific Advisors on Marine Mammals (Mar. 23, 2021), <https://www.mmc.gov/events-meetings-and-workshops/other-events/effects-of-low-salinity-exposure-on-bottlenose-dolphins-webinar/>, recording available at https://www.zoomgov.com/rec/play/upN4du-pjiM3SYaVuASDAqR_W9S6L_issyUX_KdbnU23ACVRYQXzMrMWZrbyPSqHTFtaJt6p_k7wI64U?continueMo de=true.

² See, e.g., Rich, N. (2020). Destroying a way of life to save Louisiana. *New York Times* (July 21, 2020), <https://www.nytimes.com/interactive/2020/07/21/magazine/louisiana-coast-engineering.html>, which characterized the Save Louisiana Coalition as “the only nonprofit opposed to the master plan.” A more recent article acknowledged Louisiana Bayoukeeper as opposed to the project. John Schwartz, *Big Step Forward for \$50 Billion Plan to Save Louisiana Coast*, *New York Times* (Mar. 5, 2021, updated Mar. 12, 2021), <https://www.nytimes.com/2021/03/05/climate/louisiana-mississippi-river-diversion.html>.

³ Gulf Spill Restoration, Louisiana Trustees Seek Comments on Proposed Mid-Barataria Sediment Diversion, <https://www.gulfspillrestoration.noaa.gov/2021/03/louisiana-trustees-seek-comments-proposed-mid-barataria-sediment-diversion>.

⁴ *Id.*

⁵ *Supra* n. 1; see also Smith, C. R., Rowles, T. K., Hart, L. B., Townsend, F. I., Wells, R. S., Zolman, E. S., Balmer, B. C., Quigley, B., Ivancic, M., McKercher, W., Tumlin, M. C., Mullin, K. D., Adams, J. D., Wu, Q., McFee, W., Collier, T. K., and Schwacke, L. H. (2017). Slow recovery of Barataria Bay dolphin health following the *Deepwater Horizon* oil spill (2013–2014), with evidence of persistent lung disease and impaired stress response. *Endangered Species Research* 33: 127–142.

⁶ *Supra* n. 1.

⁷ Thomas, L., Marques, T., Booth, C., Takeshita, R., and Schwacke, L. (2021). Predicted population consequences of low salinity associated with the proposed Mid-Barataria Sediment Diversion project on bottlenose dolphins in the

Barataria Bay Estuarine System Stock, available at

<https://www.mmc.gov/wp-content/uploads/21-05-13-BB-dolphin-popn-trajectory-MMC-response.pdf>.

⁸ *Id.*

⁹ *Supra* n. 1.

¹⁰ Baur, D. C., Gosliner, M. L., Sedlacek, K. M., and Young, N. M. (2015). The law of marine mammal conservation. *Ocean and Coastal Law and Policy*, 2d ed., 511, 522–532 (Donald C. Baur, Tim Eichenberg, Georgia Hancock Snusz, and Michael Sutton, eds., ABA 2015).

¹¹ Waivers of the MMPA were requested, or comparable procedures invoked, for the following situations:

- The Fur Seal Import Request (1974)
- Tuna/Dolphin Permits prior to the 1984 Amendments (1974, 1976, 1977, 1980, Permit legislated 1984)
- State of Alaska Transfer of Management Request (1976)
- Dall’s Porpoise Proceedings—Japanese High Seas Salmon Fishery (1981, 1986—Permit legislated, 1987)
- The Makah Tribe’s Request to Hunt Gray Whales (2005–ongoing)

¹² Thomas, Peter O., Marine Mammal Commission, *Letter to the National Marine Fisheries Service regarding the issuance of a waiver of the Marine Mammal Protection Act’s taking moratorium for three wetland restoration projects in Louisiana as directed by Public Law 115-123* (March 12, 2018), <https://www.mmc.gov/wp-content/uploads/18-03-12-Oliver-Gulf-Restoration-Waiver.pdf>.

¹³ Vail, C. S. (2016). An overview of increasing incidents of bottlenose dolphin harassment in the Gulf of Mexico and possible solutions. *Frontiers in Marine Science* 3. doi:10.3389/fmars.2016.00110.

¹⁴ See e.g., Soldevilla, M. S., Garrison, L. P., Scott-Denton, E., Nance, J. M. (2015). Estimation of Marine Mammal Bycatch Mortality in the Gulf of Mexico Shrimp Otter Trawl Fishery. NOAA Technical Memorandum NMFS-SEFSC-672, 70 p. doi:10.7289/V5SF2T46; see also NOAA Fisheries, Southeastern U.S. Atlantic, Gulf of Mexico Shrimp Trawl Fishery—MMPA List of Fisheries, at <https://www.fisheries.noaa.gov/national/marine-mammal-protection/southeastern-us-atlantic-gulf-mexico-shrimp-trawl-fishery-mmpa> (last visited Apr. 22, 2021), noting that “This fishery targets shrimp species with various gear types, but mainly utilizes skimmer or otter trawls. These gear types likely entangle marine mammals, particularly bottlenose dolphins, in very similar ways. The common entangling mechanism of these gear types are the “lazy” or “easy” line. The most commonly employed gear in this fishery is a double-rig otter trawl, which normally includes a lazy line attached to each bag’s codend. The lazy line floats free during active trawling, and as the net is hauled back, it is retrieved with a boat- or grappling-hook to assist in guiding and emptying the trawl nets. Shrimp trawl soak time is about three hours.”

¹⁵ See NOAA Fisheries, Common Bottlenose Dolphin, <https://www.fisheries.noaa.gov/species/common-bottlenose-dolphin> (last visited Apr. 22, 2021), noting that “One of the main threats to bottlenose dolphins is getting caught in fishing gear. Dolphins can become entangled or captured in commercial fishing gear such as gillnets, seines, trawls, trap pots, and longlines. In addition to interactions with commercial fisheries, dolphins may also encounter rod-and-reel gear used by recreational anglers or for-hire fishing vessels (such as charter boats and headboats). This problem is increasing, especially in the southeast United States and is largely the result of dolphins taking the bait and the catch directly from fishing gear, eating discarded fish, or being fed fish (illegally) by humans causing them to associate anglers with food. These interactions can cause dolphins to be injured or killed by entanglement in or ingestion of the gear. In addition, fishermen sometimes become frustrated when dolphins take their catch, and can retaliate with violence towards dolphins.”

¹⁶ While several of our organizations work to curtail marine mammal bycatch in commercial fisheries, we also recognize that shrimp fisheries will themselves be affected by this project.

¹⁷ *Supra* n. 1.

¹⁸ Schwartz, J. (2021). Big step forward for \$50 billion plan to save Louisiana coast. *New York Times* (Mar. 5, 2021, updated Mar. 12, 2021), <https://www.nytimes.com/2021/03/05/climate/louisiana-mississippi-river-diversion.html>.

¹⁹ Commenters sought more information regarding the possibility of smaller scale dredge-and-fill activities during the NEPA scoping process, but we do not believe the Corps adequately explored or responded to this possibility. US Army Corps of Engineers, New Orleans District, Mid-Barataria Sediment Diversion Project Final Scoping Report (Jan. 3, 2018) at 29,

https://www.mvn.usace.army.mil/Portals/56/docs/regulatory/permits/EIS/2018_MBSD_Scoping%20Report.pdf.

While remote and/or speculative alternatives need not be considered, *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council*, 435 U.S. 519, 551 (1978), it is improper for an agency to inadequately explain its rationale for failing to consider reasonable alternatives raised during the scoping process.

²⁰ Thomas, P., Marine Mammal Commission, *Letter to the Deepwater Horizon Louisiana Trustee Implementation Group and the U.S. Army Corps of Engineers on the draft Phase II Restoration Plan #3.2/Draft Environmental Impact Statement for the proposed Mid-Barataria Sediment Diversion project in Barataria Bay, Louisiana*, (June 2,

2021), available at <https://www.mmc.gov/wp-content/uploads/21-06-02-Louisiana-TIG-USACE-Draft-RP3.2-DEIS-MBSD-with-enclosure.pdf>.