

August 29, 2022

VIA EMAIL & U.S. MAIL:

Thomas Harris, Secretary
State of Louisiana
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RE: Petition for Declaratory Order and Ruling as to the Applicability of Statutory Provision and Rule Requiring a Coastal Use Permit for Venture Global Plaquemines LNG

Dear Secretary Harris:

Pursuant to La. Rev. Stat. 49:962, the Sierra Club, Healthy Gulf, and Deep South Center for Environmental Justice hereby petition the Secretary of the Louisiana Department of Natural Resources (“LDNR”) to issue a Declaratory Order and Ruling to require a Coastal Use Permit (“CUP”) for the Venture Global Plaquemines LNG liquefaction plant and export facility (hereinafter the “Plaquemines LNG project”).¹ Petitioners seek an order as to the applicability of La. Rev. Stat. 49:214.30(A)(1) and La. Adm. Code tit. 43, Part I, §723(A)(2), which prohibit anyone from commencing a use of state or local concern without first applying for and receiving a CUP.

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¹ Sierra Club and Healthy Gulf are non-profit, environmental organizations with members in Louisiana who would be adversely affected by the construction and operation of the Plaquemines LNG terminal and Gator Express pipeline, including but not limited to impacts on air, water, wetlands, fish and wildlife, and vehicular and vessel traffic. The Deep South Center for Environmental Justice has staff in New Orleans, Louisiana, and assists families along the Gulf Coast Region, including Louisiana, through research, education, community engagement for policy change, as well as health and safety training for environmental careers.

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INTRODUCTION

On August 26, 2019 and as subsequently amended, Plaquemines LNG received a determination from LDNR that no CUP was necessary for the project because it was located in fastlands and would not have a direct and significant impact on coastal waters. LDNR has the authority to review and revoke that determination under La. Adm. Code tit. 43, Part I, § 723(G)(4)(b). Subsequent data and information—including data on the impacts of Hurricane Ida on the site and adjacent area in August, 2021, the 2022 reports from the National Oceanic and Atmospheric Administration (“NOAA”) and the Intergovernmental Panel on Climate Change (“IPCC”), as well as the data and information addressed in the expert witness reports prepared for Petitioners filed herewith—indicate the project can and will have direct and significant impacts on coastal waters and therefore LDNR must require a CUP.

As discussed below, the existing levees are not sufficient to protect the site from flooding or prevent resulting pollution from impacting coastal waters during the severe storm events, including hurricanes, that occur in this area. In addition, Plaquemines LNG’s plan for new 26 ft. levees is irrelevant to the CUP determination, nor will it sufficiently protect the site or surrounding coastal waters. The site will continue to flood and impact the coastal waters during the multi-year construction period until the new levees are built. Moreover, the planned levees will not prevent impacts to coastal waters because storm surges caused by hurricanes and other severe storms—which will occur with increasing frequency and severity over the lifespan of the facility—may overtop the 26 ft. levees or cause them to fail due to design flaws.

A CUP is also in order because the construction and operation of the project will have direct and significant impacts to wetlands on site, the site is less than five feet above sea-level, and it is not properly characterized as fastlands.

Under the circumstances, LDNR must require a CUP for Plaquemines LNG to comply with its public trust duty under the Coastal Use Guidelines and the Louisiana Constitution. We therefore request that LDNR issue a cease and desist order for ground disturbing activities at the project site unless and until Plaquemines LNG applies for and receives a CUP for the Plaquemines LNG project.

DISCUSSION

I. Background

A. Description of the Project

The Plaquemines LNG site is roughly 35 miles south of New Orleans. *See Final Environmental Impact Statement for the Venture Global Plaquemines LNG, LLC's et al Plaquemines LNG and Gator Express Pipeline Project under CP17-66 et al*, Federal Energy Regulatory Commission, Accession No.: 20190503-3011, 4-125 (May 2019), (hereinafter "FEIS") (excerpts attached as Exhibit A), Exhibits at 31.² The site is within the State of Louisiana's designated coastal zone. FEIS at ES-7, 4-38, 4-123, 4-124, 5-17, Exhibits at 9, 25, 29, 30, 33. The Plaquemines LNG facility would be capable of processing and exporting 20 million tons per year of liquefied natural gas ("LNG") to the global market; and would include six pretreatment facilities, a liquefaction plant with up to 36 "liquefaction trains," four 200,000-cubic-meter aboveground LNG storage tanks, three LNG loading docks along the Mississippi River, and two 720 MW combined cycle gas-fired plants to provide electricity for the liquefiers and other operational needs.³ FEIS at ES-1, ES-2, 2-3, Exhibits at 3-4, 20.

The potential environmental impacts of this facility are profound. Construction of the terminal would impact 648 acres of land and 80.6 acres of aquatic resources, including permanently destroying over 368 acres of sensitive wetlands.⁴ FEIS at 4-41, Exhibits at 27. In addition, Plaquemines LNG will involve the construction of a 26 ft. storm wall that it claims

² The citations to "Exhibits at ___" herein are to the attached exhibits and their pdf bates number.

³ *See* Venture Global LNG, <https://ventureglobalng.com/project-plaquemines/plaquemines-lng-facility/> (last visited March 14, 2022).

⁴ Construction of the connected Gator Express Pipeline would impact approximately 75 acres of wetlands, over 876 acres of open water, and over four acres of productive oyster leases. FEIS at 3-15, 4-44. LDNR required a CUP for the pipeline. *See Coastal Use Permit/Consistency Determination*, Department of Natural Resources Office of Coastal Management, C.U.P. No. P20170543 (attached as Exhibit E), Exhibits at 23, 27.

will protect the site from flooding. FEIS at 2-24, 4-30, Exhibits at 22, 24.⁵ But new computer modeling of hurricane storm surge indicates the levee can still be topped; and the design of the construction of the wall raises its own safety concerns. *See van Heerden Aff.* ¶¶ 75-79, 106-107, 138-165 (attached as Exhibit B-1), Exhibits at 63-64, 74-75, 84-94. Furthermore, given the climate-driven increasing severity of storms in the Gulf, as exemplified by Hurricane Ida’s impacts on this site in August, 2021, the storm wall will likely suffer from overtopping with water during major storm surges, resulting in flooding that could carry significant contaminants into the local ecosystem and surrounding coastal zone. *Id.* ¶¶ 75-79, 106-111, Exhibits at 63-64, 74-75; *Sahu Aff.* ¶¶ 20-26 (attached as Exhibit B-2), Exhibits at 109-110; *Hayes Aff.* ¶¶ 22, 43 (attached as Exhibit B-3), Exhibits at 144, 149; *Parfait Aff.* ¶¶ 4-5 & Attach. B (attached as Exhibit B-4), Exhibits at 160, 165. As discussed in Section II below, significant new data demonstrates that the scope of these risks is drastically higher than previously understood.

B. History of LDNR Permitting

In a finding dated August 26, 2019 and amended on October 29, 2020 and December 14, 2020, LDNR determined that no CUP would be necessary for Plaquemines LNG. *See Coastal Use Authorization/Consistency Determination*, Department of Natural Resources Office of Coastal Management, C.U.P. No. P20170545 (attached as Exhibit C), Exhibits at 170-172; *Coastal Use Authorization/Consistency Determination*, Department of Natural Resources Office of Coastal Management, C.U.P. No. P20170545 (Amended) (attached as Exhibit D-1), Exhibits at 185-187; and *Coastal Use Authorization/Consistency Determination*, Department of Natural Resources Office of Coastal Management, C.U.P. No. P20170545 (Amended, Amended) (attached as Exhibit D-2), Exhibits at 199-201.

The LDNR’s rationale for its initial non-CUP determination was that the Plaquemines LNG site is located at an elevation of five ft. or higher or in fastlands, and the construction of Plaquemines LNG would have no direct or significant impact to coastal waters. *See Exhibit C, Special Consideration and Preliminary Determinations* at 2-3, Exhibits at 175-178. The LDNR rationale for the subsequent amendments was the same. *See Exhibits D-1 and D-2, Special Consideration and Preliminary Determinations*, Exhibits at 189-190, 205-206.

Although the 10-day deadline of La. Rev. Stat. 49:214.35(B) for reconsideration of the non-CUP determinations has passed, the secretary “shall not be stopped” from subsequently requiring a permit or issuing a cease and desist order if it is found that the activity does in fact have a direct or significant impact on coastal waters, or otherwise requires a CUP. La. Adm. Code tit. 43, Part I, §723(G)(4)(b). The secretary should make such a finding here based on significant new information that has come to light since the non-CUP determination and amendments were issued. As explained below, Hurricane Ida’s impacts on the site in August

⁵ Note that a wall “28 feet above proposed grade” is equivalent to a wall at 26 ft NAVD88 because the site will be graded to -2 ft NAVD88.

2021 and subsequent data indicate that Plaquemines LNG will have direct and significant impacts on the coastal zone.

C. Applicable Law

Sierra Club, Healthy Gulf, and Deep South Center for Environmental Justice file this petition pursuant to La. Rev. Stat. 49:962, which provides that “[e]ach agency shall provide by rule for the filing and prompt disposition of petitions for declaratory orders and rulings as to the applicability of any statutory provision or of any rule or order of the agency.” Moreover, “[d]eclaratory orders and rulings shall have the same status as agency decisions or orders in adjudicated cases.”⁶ *Id.*

Louisiana’s State and Local Coastal Resources Management Act (“SLCRMA”) is codified at La. Rev. Stat. 49:214.21 *et. seq.*. La. Rev. Stat. 49:214.30(A)(1) prohibits anyone from commencing a use of state or local concern without first applying for and receiving a CUP. A “use” is any activity within the Coastal Zone that has a direct and significant impact on coastal waters. La. R.S. 49:214.23(13). “Uses of the coastal zone” subject to the program include “[e]nergy facility siting and development.” La. R.S. 49:214.25(A)(1)(h).

The LDNR rules codified at La. Adm. Code tit. 43, Part I, §701(G) state it is the policy of the coastal resources program to avoid adverse impacts to the “maximum extent practicable.” The listed impacts LDNR must protect against include “destruction or adverse alterations of streams, wetlands, . . . and other natural biologically valuable areas or protective coastal features”; “adverse effects of cumulative impacts”; and “increases in the potential for flood, hurricane and other storm damage; or increases in the likelihood that damage will occur from such hazards.” La. Adm. Code tit. 43, Part I, §701(G)(5), (10) and (20). The rules at La. Adm. Code tit. 43, Part I, §723(A)(2) further state: “No use of state or local concern shall be commenced or carried out in the coastal zone without a valid coastal use permit or in-lieu permit unless the activity is exempted from permitting by the provisions of the SLCRMA or by Subsection B of this Section.” This subsection includes a list of uses, which includes “industrial development, including siting, construction, or operation of such facilities.” La. Adm. Code tit. 43, Part I, §723(A)(2)(I).

An exception to the CUP requirement exists for activities “occurring in fast lands except when the secretary finds, subject to appeal, that the particular activity would have direct and significant impacts on coastal waters.”⁷ La. R.S. 49:214.34(A)(2). However, a fastlands

⁶ This petition also satisfies La. Rev. Stat. 49:963(D) and La. Adm. Code tit. 43 Part 1, §127, which require petitioners to request that the secretary of LDNR pass upon the applicability of a rule or regulation prior to judicial review.

⁷ “Fastlands” are defined as “lands surrounded by publicly-owned, maintained, or otherwise validly existing levees or natural formations as of January 1, 1979, or as may be lawfully constructed in the future, which levees or natural formations would normally prevent activities, not to include the pumping of water for drainage purposes, within the surrounded area from having direct and significant impacts on coastal waters.” La. Adm. Code tit. 43, Part 1, §700; *see also* La. R.S. 49:214.23(6).

designation by itself is not grounds to exempt a project from the CUP requirement. As explained in LDNR’s Policy Memorandum of October 4, 2012,

It should be noted that, pursuant to §723.B.2.d., even a normally exempted activity may require a coastal use permit if it involves direct and significant impacts to coastal waters. . . . *Thus, it is incorrect to state that an area, such as a fastland, is exempt.* Rather, it is correct to state that a particular activity in a fastland is exempt from the coastal use permit requirement, *provided that it has no direct and significant impacts on coastal waters.*

See Policy Memorandum, State of Louisiana Department of Natural Resources (Oct. 4, 2012) (attached as Exhibit F) (emphasis added), Exhibits at 223-226.

II. LDNR Must Require a Coastal Use Permit for Plaquemines LNG Because it will Have Direct and Significant Impacts on Coastal Waters.

A. Hurricane Ida Impacts and Data Show the Site will be Submerged and Impact Coastal Waters.

Roughly two years after LDNR’s initial non-CUP finding and more than eight months after the last amendment, Hurricane Ida’s center crossed the coast near Port Fourchon, Louisiana, at 11:55 a.m. CDT on Aug. 29, 2021. Maximum sustained winds were 150 mph, making Ida a high-end Category 4 hurricane. *See van Heerden Aff.* ¶ 36-37, Exhibits at 46. Storm surge predictions showed that vast areas of the coast would be flooded by more than nine ft. above land, including the Plaquemines LNG site. *Id.* at Fig. 6, Exhibits at 47. In fact, Hurricane Ida topped the levees and completely submerged the site for approximately one month. *See Parfait Aff., Attach. B, Exhibits at 165-166;*⁸ Photographs of Plaquemines LNG site after Hurricane Ida taken on September 9, 2021 (attached as Exhibit G-1), Exhibits at 228-230;⁹ Venture Global Plaquemines LNG, LLC and Gator Express Pipeline, LLC FERC Docket Nos. CP17-66-000, CP17-67-000, Monthly Construction Status Report No. 025, November 8, 2021 (attached as Exhibit G-2) (“Plaquemines LNG’s site remained flooded for most of October due to Hurricane Ida, which impacted Louisiana in late August.”), Exhibits at 233-236; *van Heerden Aff.* ¶¶ 37, 66, 78, Exhibits at 46, 56, 63-64.

After the storm, Atmospheric and Environmental Research—a private company and branch of Verisk Analytics—used satellite remote sensing technology to identify flooding along the Gulf Coast.¹⁰ The resulting data demonstrated extensive flooding, including over nine feet

⁸ This flood map data was produced by Sierra Club Campaign Representative Jessica Parfait using data from AER FloodScan, available at <https://atmospheric-and-environmental-research-aer.myshopify.com/collections/floodscan/products/floodscan-select-large-floods>. *Parfait Aff.* ¶¶ 3-5, Exhibits at 160 (Source data is included on USB enclosed to LDNR.).

⁹ These photographs were taken by Healthy Gulf staff scientist Naomi Yoder on a commissioned flight from Belle Chasse, Louisiana over the area after Hurricane Ida.

¹⁰ *See Verisk, About Us, AER, <https://www.aer.com/about-us/> (last visited Aug. 23, 2022)* (“We prepare agencies like NOAA, NASA and the Department of Defense, along with large insurance, investment and energy

of flooding at the project site and 15 feet of flooding in surrounding areas. Parfait Aff. ¶ 5 & Attach. B, Exhibits at 160, 165-166. Moreover, as summarized in the van Heerden Affidavit, hindcast data from the Coastal Emergency Risk Assessment group at LSU revealed that the surge elevation was in the range of about 8.8 ft. to 12 ft. NAVD88, so in some places water depths would have been at least 15 ft. van Heerden Aff. ¶ 78, Exhibits at 63-64. Winds at landfall were horrific (up to 150 mph) so a vicious and destructive wave field would have covered its surface, with waves up to 12 ft. high. *Id.* The proposed new 26-ft. ring levee at the LNG facility would have to have been 27 ft. high NAVD88 for no overtopping to occur, assuming it held. *Id.* On a different track with more surge, shallow water wave equations indicate a maximum combined surge and wave height water level of 37 ft. *Id.* Thus, the existing levees were demonstrably insufficient to prevent flooding during Hurricane Ida, and Venture Global's planned 26 ft. levees likewise would not have done so.

This demonstrates that the Plaquemines LNG site will flood during major storm events and will cause direct and significant impacts on coastal waters. Flooding would pose environmental risks and operational safety problems: once the surge starts to retreat, there is a real risk that contaminants would be carried seawards into Louisiana's precious coastal wetlands and into the Mississippi River in addition to local communities. *Id.* ¶ 10, Exhibits at 38; Sahu Aff. ¶¶ 20-22, Exhibits at 108-109; Hayes Aff. ¶ 22, 43, Exhibits at 144, 149. There is a high probability of runoff of landfill (during construction) and chemicals (during operation) of Plaquemines LNG being carried off the site and into homes, businesses, farmland, and fragile coastal wetlands. van Heerden Aff. ¶ 109, Exhibits at 75; Sahu Aff. ¶¶ 20-22, Exhibits at 108-109. This is not a hypothetical risk: Hurricane Katrina caused a major oil spill from the Murphy Oil USA refinery. van Heerden Aff. ¶ 109, Exhibits at 75. When the refinery flooded with 18 ft. of water, a 250,000-barrel-above-ground storage tank floated off its moorings and was punctured, releasing approximately 25,110 barrels (1,055,000 U.S. gallons) of oil. *Id.* ¶ 111, Exhibits at 75-76. The contaminated water impacted approximately 1,700 homes in the adjacent residential neighborhoods, over an area of about one square mile. *Id.*

Rather than oil, with Plaquemines LNG, the largest potential contaminant is the over 1,200,000 m³ of LNG that will be processed and stored at the site. van Heerden Aff. ¶ 115, Exhibits at 77. In order to maintain gas in its liquid form, LNG must be stored at cryogenic temperature below -260°F—a temperature so cold that it would freeze and kill any wetland plants and organisms that came into direct contact. *Id.* ¶¶ 112, 130, Exhibits at 76, 82, 83. Risks would also extend well beyond the spill location, especially during a severe weather event with high winds. For example, if an LNG tank is punctured, a resulting methane vapor cloud, even if unignited, could result in asphyxiation and death to surrounding organisms, including humans. *Id.* ¶ 130, 131 Exhibits at 82-83. If ignited, LNG can burn as a pool fire or a vapor fire. *Id.* ¶¶ 122, 131, 137, Exhibits at 80, 83-84. Data shows that the minimum hazard distance for a vapor fire is at least 1536 m (0.95 miles) for an accidental leak and about 3614 m (2.25 miles) for an intentional puncture. *Id.* ¶ 125 & Table 2, Exhibits at 81-82. A small, accidental puncture of a single LNG tank would cause major injuries and severe structural damage within 10 minutes up to 177 m (0.1 miles) away, potentially exacerbating a disaster via damaging other,

companies to anticipate, manage, react to and profit from weather and climate related risk.”); Verisk, FloodScan: Near real-time and historical flood mapping, <https://www.aer.com/weather-risk-management/floodscan-near-real-time-and-historical-flood-mapping/> (last visited Aug. 23, 2022).

initially-unharmful LNG tanks. *Id.* ¶ 125 & Table 1, Exhibits at 81. Moreover, LNG contact with water can also result in physical explosions. *Id.* ¶ 128, Exhibits at 82.

Even if LNG remained fully contained during a major storm, flooding at the project site would undoubtedly release oil, grease, heavy metals, and other toxic chemicals into the surrounding ecosystem. As Dr. Ron Sahu summarizes, materials and activities conducted onsite would likely include diesel fuel storage, vehicle fueling using gasoline, vehicle cleaning and washing, concrete wastes from ready-mix trucks, grout washing and concrete batch plants, chemical storage and handling including “non-fuel chemicals...oil lubricants (i.e., motor oil, transmission fluid, and hydraulic fluid), solvents, adhesives, and paint materials...”; construction materials such as “...petroleum products, pesticides, herbicides, fertilizers, detergents, plasters, acids, lime, glues, adhesives, paints, solvents and soil binders...”; and hazardous construction materials and sanitary wastes. Sahu Aff. ¶ 16, Exhibits at 108. In addition, there would likely be “substances screened from incoming gas; hydrocarbon, sulfur species, and moisture liquids that may be separated from incoming gas and stored onsite; coolants and refrigerants for liquefaction (i.e., used to make the LNG); ammonia (for control of NOx from the power plant exhausts); maintenance, landscape, and janitorial supplies including potential solvents; air conditioning condensate discharges; potential fire-training related materials including discharges of foams; potential storage of fire-fighting chemicals; and others.” *Id.* ¶ 17, Exhibits at 108.

Any contaminants released at the site during storm flooding could be carried into surrounding coastal waters during the surge and as it recedes. Construction will last for four hurricane seasons, and it is not clear when the proposed 26-ft levees will be completed. *Id.* ¶¶ 13, 15, Exhibits at 107. During construction—particularly until the 26-ft. levees are complete—any materials and contaminants stored at the site would likely flow off of the site to impact surface soils, groundwater, wetlands, and the Mississippi River. *Id.* ¶ 20, Exhibits at 108-109. During facility operations, any flooding of the facilities or activities located outside of the storm wall will release and spread potentially toxic materials to surface soils, groundwater, and surface waters. *Id.* ¶ 21, Exhibits at 109. If the 26 ft. levee fails, “it will afford no protection to any releases of material” located within the stormwall, and those contaminants will impact surrounding coastal waters. *Id.* ¶ 22(i), Exhibits at 109. Even if the levee is simply overtopped but remains structurally sound, safely disposing of contaminated water accumulated within the 26-ft. wall “would be a monumental undertaking,” particularly “in light of the large area it encompasses and the massive activities that are proposed to be contained within it: including a large LNG facility, 4 very large LNG storage tanks, significant quantities of refrigerant liquids, two large power plants, waste water treatment facilities (which will, of course, not be functional in the aftermath of a significant flooding event), and many other supporting facilities, equipment, materials, and chemicals.” *Id.* ¶¶ 22(ii), 26, Exhibits at 109-110; *see also* Hayes Aff. ¶¶ 18-34, 43, Exhibits at 143-146, 149.

Based on the hydrologic connections in the area, it is likely that contaminant-laden, receding floodwaters will enter nearby waterbodies and surrounding areas, including Lake Judge Perez, Hermitage Lake Bayou, Iron-ton, Bayou Log Cabins. Hayes Aff. ¶ 42-43, Exhibits at 149.

Contamination released from the site during a major storm would also impact coastal waters by causing violations of Louisiana’s water quality standards. Louisiana’s water quality policy dictates that “all state waters should be protected for recreational uses and for the preservation and propagation of desirable species of aquatic biota and indigenous species of wildlife.” La. Admin. Code tit. 33, Part IX, §1109.B.1. To that end, Louisiana’s general water quality standards require all state waters to “be free from such concentrations of substances attributable to wastewater or other discharges sufficient to . . . (b) float as debris, scum, oil, or other matter to form nuisances or to negatively impact the aesthetics . . . [or] (d) injure, be toxic, or produce demonstrated adverse physiological or behavioral responses in humans, animals, fish, shellfish, wildlife, or plants.” La. Admin. Code, tit. 33, Part IX, §1113.B.1(b) & (d); *see also id.* § 1113.B.4 (prohibiting any substances in state waters “that alone or in combination will be toxic to human, plant, or animal life or significantly increase health risks due to exposure to the substances or consumption of contaminated fish or other aquatic life”). As noted, leaked LNG could catastrophically damage the surrounding ecosystem via its freezing temperatures, suffocating vapors, or fire and explosion hazards. Moreover, oil, grease, heavy metals, and other toxic chemicals released when the site floods would likely negatively impact the aesthetics, harm wildlife and aquatic organisms, contaminate currently-productive oyster leases, leave behind oily deposits or scum, and interfere with designated uses in surrounding water bodies. Hayes Aff. ¶¶18-34, Exhibits at 143-146.

In addition, contaminated floodwaters could interfere with designated uses: the waterbody subsegments surrounding the site have all been designated for primary and secondary contact recreation as well as fish and wildlife propagation.¹¹ Louisiana Water Quality Assessment, App. A, available at <https://www.deq.louisiana.gov/page/2020-water-quality-inventory-integrated-report-305b303d>. Three of the four surrounding subsegments are also designated for oyster propagation. *Id.* Large releases of more conventional pollutants like oil, grease, heavy metals, and other toxic chemicals may interfere with these designated uses for the reasons described above.¹² Even more concerning, an LNG leak poses a significant risk of severe injury for people recreating within miles of the site as well as any other organisms in the vicinity. van Heerden Aff. ¶¶ 125, 131-133, Exhibits at 81, 83. Thus, the Plaquemines LNG facility could violate Louisiana’s general water quality standards and interfere with the designated uses in adjacent Louisiana coastal waters.

¹¹ The subsegments containing and surrounding the Plaquemines LNG site include: 020907 (Bay Sansbois, Lake Judge Perez, and Bay De La Cheniere), 020904 (Wilkinson Canal and Wilkinson Bayou), 021101 (Barataria Bay), 021001 (Lake Washington, Bastian Bay, Adams Bay, Scofield Bay, Coquette Bay, Tambour Bay, Spanish Pass, and Bay Jacques). Louisiana Dep’t of Env’tl Quality Subsegments, available at <https://ldeq.maps.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=e113244f97044c5680ea41e80231422a> (last visited Apr. 22, 2022).

¹² Primary and secondary contact recreation designations, for example, require waters to be safe for recreational activities like swimming or diving “in which the probability of ingesting appreciable amounts of water is considerable” as well as others like fishing in which that likelihood is minimal. La. Admin. Code tit. 33, Part IX, § 1111. Fish and wildlife propagation designations require “maintenance of water quality at a level that prevents damage to indigenous wildlife and aquatic life species associated with the aquatic environment and contamination of aquatic biota consumed by humans.” *Id.* Oyster propagation designations require “maintain[ce of] biological systems that support economically important species of oysters, clams, mussels, or other mollusks so that their productivity is preserved and the health of human consumers of these species is protected.” *Id.*

In sum, “this project whose purpose is ‘to construct a New Marine and Terminal Site and Pipeline System within and along the Mississippi River, Plaquemines Parish’ will in fact inevitably, irreparably, and significantly harm surge-reducing wetlands, the local community, and the flora and fauna of the area, and will pose a major risk of contaminants escaping the facility during passage of a major hurricane.” *See* van Heerden Aff. ¶ 4(a), Exhibits at 36. As a result, the Plaquemines LNG facility will cause direct and significant impacts to coastal waters.

B. The Planned 26 ft. Levees will not Prevent Impacts to Coastal Waters.

Plaquemines LNG’s risk of impacts to coastal waters applies notwithstanding its planned 26 ft. ring dike. Rising ocean temperatures due to climate change cause hurricanes to metastasize. *See* van Heerden Aff. ¶ 8, Exhibits at 38. Applying the NOAA Sea, Lake, and Overland Surges from Hurricanes (“SLOSH”) model¹³ demonstrates that Plaquemines LNG would be totally flooded with up to 25 ft. of surge from Category 3 storms and up to 31 ft. of surge from Category 5 storms. *Id.* ¶ 75, Exhibits at 63. The Plaquemines LNG levee design apparently used a 500-year base flood elevation of 19.1 ft. NAVD88—however, that significantly undervalues the potential tropical storm conditions that can develop.¹⁴ *Id.* ¶¶ 5-58, 166, Exhibits at 37-52, 94. Because the site can be flooded despite the 26 ft. levees, Plaquemines LNG may cause the same impacts to coastal waters noted above, namely runoff and discharge of pollutants in the flood waters that are connected to or flow into coastal waters.

Furthermore, the proposed Plaquemines LNG levee suffers from design issues that indicate it may fail during a hurricane or other severe storm event. The attached affidavit by Ivor van Heerden, who served as the leader of the State on Louisiana’s Official Hurricane Katrina levee failure study team, explains the construction and pile driving associated with the Plaquemines LNG facility risks weakening the whole levee structure, leading to under seepage and potential failure of the levee during a major flood such as those witnessed in the last 10 years. *Id.* ¶ 138, Exhibits at 84. It is his informed opinion that once the pile driving, berth and platform with walkways, and haul road construction begins, the damage to the integrity of the levee may be irreparable. *Id.* Of major concern is the large number of pilings that are going to be hammered into the back levee and the batture. *Id.*; *see also id.* ¶¶ 138-143 (discussing the consequences of pounding of mooring and associated pilings), Exhibits at 84-87; *id.* ¶¶ 144-159 (discussing the validity of the surge flood wall design), Exhibits at 87-93; *id.* ¶¶ 153-155 (discussing safety calculations for the LNG proposed surge I-wall predicting potential levee system failure similar to Hurricane Katrina), Exhibits at 90-91. As Dr. van Heerden concludes: “Failure of any levee and especially the I-wall ring dyke will result in catastrophic release of chemical contaminants towards Barataria Bay impacting wetlands as well as the waters of the Bay. The impact to wetland fauna and flora would be immense.” *See id.* ¶ 169, Exhibits at 95.

¹³ This computerized, numerical model was developed by the National Weather Service to estimate storm surge heights and is the official surge data source extensively used by the National Hurricane Center.

¹⁴ Climate change is causing storms to have greater rainfall, which will fall *inside* the levees. *See* van Heerden Aff. ¶¶ 21-24, Exhibits at 41-42. This factor, like all the effects of climate change on the site, is not considered in LDNR’s non-CUP finding.

C. The 2022 NOAA Sea Level Rise and IPCC Sixth Assessment Reports

In the nearly two years since LDNR issued the last non-CUP amendment, substantial new information has emerged that fundamentally change the underlying analysis. Specifically, LDNR must revisit its non-CUP findings in order to consider the 2022 NOAA report on sea level rise and the new Sixth Assessment Report from the IPCC, which address how climate change and severe weather will impact the site.

In its 2022 report, NOAA concluded sea level will rise due to climate change by one foot by 2050. *See U.S. coastline to see up to a foot of sea level rise by 2050*, National Oceanic and Atmospheric Administration, available at <http://www.noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050> (Feb. 15, 2022) (attached as Exhibit H-1), Exhibits at 242. Water level rises along Louisiana’s coast are expect to be up to twice that predicted globally: between 1.5 ft (0.46 m) and 2 ft (0.61 m) by 2050. *van Heerden Aff.* ¶ 57, Exhibits at 52. Thus, the baseline for the non-CUP determination has changed and will continue to change during the 30-plus-year life of the project.¹⁵ Yet, the size of the floodwall cannot be easily changed after it is constructed. *Id.* ¶ 54, Exhibits at 51.

The 2022 NOAA sea level rise data is significant new information because Louisiana has the highest relative rise in sea level of anywhere in the U.S.; storms and hurricanes are common in Louisiana and could happen at any time, as aptly demonstrated by the 2020 and 2021 hurricane seasons; and Plaquemines LNG is at risk of serious flooding. *See van Heerden Aff.* ¶¶ 5, 50-58, Exhibits at 37, 50-52. Sea level rise makes the risk of flood waters inundating the site worse by increasing the height of both storm surge and waves. *Id.* ¶ 97, Exhibits at 69; Exhibit H-1 at 5 (“[T]he sea level rise expected by 2050 will create a profound increase in the frequency of coastal flooding, even in the absence of storms or heavy rainfall.”), Exhibits at 245. The depth of the storm surge—which is “highly sensitive” to sea levels in “broad, shallow, wetland areas” like the project site—alone exacerbates the risk that the planned 26 ft. levees will not protect the site. *van Heerden Aff.* ¶ 97, Exhibits at 69. For example, a simplistic linear model suggests that an additional one foot of sea level rise could translate to three to five feet of additional storm surge height. *Id.* ¶ 104, Exhibits at 48. Other studies suggest an additional one foot of sea level rise could increase storm surge height by up to 23 ft (7 m). *Id.* Wave heights on top of the storm surge will also increase with sea level rise and surge height, with one study suggesting that waves alone would increase by nearly five feet (1.5 m). *Id.* ¶ 97, Exhibits at 69. Moreover, as wetlands deteriorate, water depths will continue to increase, exacerbating the impact of rising sea levels on surge heights. *Id.*

Similarly, the IPCC’s Sixth Assessment Report—specifically, the February 2022 report on *Impacts, Adaptation, and Vulnerability*—paints a staggering picture of a climate-destabilized

¹⁵ FEIS at 4-291, Exhibits at 32. (“The Project would continue operations for at least 30 years.”); *Order Granting Authorizations under Sections 3 and 7 of the Natural Gas Act re Venture Global Plaquemines LNG, LLC et al under CP17-66 et al. Commission Glick is dissenting with a separate statement attached.*, Federal Energy Regulatory Commissioner, at 2 n.7 (reporting that Plaquemines LNG has an exclusive right to lease the project site for 70-years), available at https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20190930-3048&optimized=false.

future absent urgent and aggressive carbon emission reductions, highlighting the urgent need to curb greenhouse gas emissions and the substantial risk of severe weather events facing infrastructure like Plaquemines LNG along the Gulf Coast. Because “[c]limate change impacts and risks are becoming increasingly complex and more difficult to manage,” it is increasingly likely that “multiple climate hazards will occur simultaneously, . . . compounding overall risk[.]” See IPCC, *Climate Change 2022 Impacts, Adaptation and Vulnerability, Summary for Policy Makers* at 8, A.3, available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf (Feb. 2022) (attached as Exhibit H-2), Exhibits at 267. Explaining that “[w]idespread, pervasive impacts to ecosystems, people, settlements, and infrastructure have resulted from observed increases in the frequency and intensity of climate and weather extremes,” *id.* at SPM.B.1.1, Exhibits at 258, the IPCC also predicts, with high to very high confidence, that climate change will cause increasing adverse impacts from flood and storm damages in coastal areas, damage to key infrastructure, and damage to key economic sectors in North America. *Id.* at Figure SPM.2, Exhibits at 259. Risks from climate change to “key infrastructure will rise rapidly in the mid- and long-term with further global warming, especially in places . . . along coastlines, or with high vulnerabilities (high confidence).” *Id.* at SPM.B.4.5, Exhibits at 264; *see also id.* at SPM.B.5.2 (“Unavoidable sea level rise will bring cascading and compounding impacts resulting in losses of coastal ecosystems and ecosystem services, groundwater salinisation, flooding and damages to coastal infrastructure that cascade into risks to livelihoods, settlements, health, well-being, food and water security, and cultural values in the near to longterm (high confidence).”), Exhibits at 267-268.

Because climate change impacts can no longer be eliminated entirely, the IPCC also highlights critical adaptation strategies, including restoring wetlands to “further reduce flood risk.” *Id.* at Figure SPM.2, Exhibits at 259. Noting that “siting of infrastructure” and other factors have “contributed to the exposure of more assets to extreme climate hazards increasing the magnitude of the losses (high confidence),” the IPCC also concludes that “[a]ctions that focus on sectors and risks in isolation and on short-term gains often lead to maladaptation if long-term impacts of the adaptation option and long-term adaptation commitment are not taken into account (high confidence).” *Id.* at SPM.B.1.6, SPM.C.4.1, Exhibits at 260, 276. Thus, the IPCC’s 2022 report provides new evidence that the Plaquemines LNG facility will face already significant, and increasing, risk from climate-driven severe weather over its lifetime, and this is the baseline against which the impacts of the facility must be evaluated.

In short, the latest data on climate change and sea level rise demonstrates heightened risk that construction and operation of the Plaquemines LNG facility will cause direct and significant impacts to coastal waters. Over the project’s lifetime, the site will be at increasing risk of being flooded due to severe storm events, including but not limited to hurricanes, and the consequent escape of pollution into coastal waters and adjacent wetlands from petrochemicals, construction materials, vehicles, and other sources of pollution on-site will severely stress coastal wetlands and endanger neighbors. The known likelihood and severity of this risk has increased drastically since LDNR issued its non-CUP determinations, as demonstrated by site flooding during Hurricane Ida, the latest sea-level rise data from NOAA, and the latest report from the IPCC. LDNR must revisit those determinations in light of these developments.

III. Additional Factors that Support Requiring a Coastal Use Permit

A. The NDSI Exception is Inapplicable Because Plaquemines LNG will Impact Wetlands.

In its August 26, 2019 Coastal Use Authorization/Consistency Determination, LDNR found the LNG export terminal “has been determined to have no direct and significant impact (NDSI) on coastal waters and a Coastal Use Permit is not required.” Exhibit C at 1, Exhibits at 170. This NDSI finding is repeated in the October 29, 2020 and December 14, 2020 amendments. Exhibits D-1 and D-2, Exhibits at 185, 200.

This NDSI finding cannot, however, justify the exemption of the Plaquemines LNG site from the CUP requirement. According to the October 4, 2012 LDNR Memorandum: “The NDSI determination will **NOT** apply if: . . . there are any impacts to vegetated wetlands (emergent or submergent).” Exhibit F at 2 (emphasis in original), Exhibits at 224. Venture Global itself acknowledges that developing the Plaquemines LNG facility “will result in the permanent loss of 368.1 acres of wetlands and temporary impacts on approximately 12.0 acres of wetlands.” See Plaquemines LNG and Gator Express Pipeline Project, Joint Permit Application Narrative at 35 (2017) (attached as Exhibit I), Exhibits at 288.¹⁶ These wetlands include palustrine emergent wetlands (PEM) and palustrine forested wetlands (PFO) – i.e., vegetated wetlands.¹⁷ *Id.* at 36, Table 6.1.2-1, Exhibits at 289. Impacts to these wetlands therefore preclude LDNR from making an NDSI finding here.¹⁸

B. The Loss of Wetlands and Associated Development will Cause Direct and Significant Impacts on Coastal Waters.

In addition to preventing application of the NDSI by definition, Exhibit F at 2, Plaquemines LNG’s destruction of wetlands will cause direct and significant impacts to coastal waters. Coastal wetlands play an important—and well-documented—role in reducing the impact of storms. Specifically, “[t]here is strong evidence that coastal ecosystems reduce wave energy and can also reduce inland flooding depths during storm surge events by providing resistance to the flow of water.” Narayan, S. et al, *The Value of Coastal Wetlands for Flood*

¹⁶ In addition, approximately 24.8 acres of PFO wetlands and 6.9 acres of PEM wetlands were identified along the shoreline of the Mississippi River. Exhibit I at 35, Exhibits at 288. Approximately 7.5 acres of PFO wetland and 1.3 acres of PEM wetland will be temporarily impacted, but will be “mitigated as permanent.” *Id.* The loading docks will result in impacts on approximately 2.8 acres of PFO wetland, including the permanent conversion of PFO wetland to PEM and/or palustrine scrub shrub (PSS) wetland where vegetation under and around permanent overhead structures (horizontal trestles) will periodically be maintained to limit woody growth, and permanent loss associated with the placement of pile caps . . .” *Id.*

¹⁷ Palustrine emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes (i.e aquatic plants), excluding mosses and lichens Palustrine forested wetlands are dominated by woody vegetation over 20 feet tall. (Cowardin et al 1979).

¹⁸ See also EPA comments of April 12, 2018 (attached as Exhibit J) (noting jurisdictional wetlands will be impacted and this would impact “floodwater abatement” among other impacts), Exhibits at 301.

Damage Reduction in the Northeastern USA, SCI REP 7, 9463 at 1 (Aug. 31, 2017), <https://doi.org/10.1038/s41598-017-09269-z>. In fact, several reports have found significant reductions in wave energy/wave height. For example, a 2016 study examining several types of coastal habitats concluded that, “[o]n average, coastal habitats reduce wave heights between 35% and 71%.” Narayan, S. et al., *The Effectiveness, Costs and Coastal Protection Benefits of Natural and Nature-Based Defences*, 11(5) PLoS ONE (May 2016), doi:10.1371/journal.pone.0154735. A 2014 study similarly estimated that “up to 60% of observed wave reduction is attributed to vegetation” in coastal salt marshes. Möller, I. et al., *Wave attenuation over coastal salt marshes under storm surge conditions*, 7 NATURE GEOSCIENCE 727 (Sept. 29, 2014), <https://doi.org/10.1038/ngeo2251>. As the IPCC explains, “[n]atural river systems, wetlands and upstream forest ecosystems reduce flood risk by storing water and slowing water flow, in most circumstances (high confidence).” Exhibit H-2 at SPM.C.2.5, Exhibits at 273.

The U.S. Army Corps has acknowledged that “[t]he ability of coastal plants to dissipate wave energy and wave heights in low-energy environments is demonstrated and documented in both field and laboratory studies.” Anderson, M., U.S. Army Corps of Eng’rs, *Wave Dissipation by Vegetation*, ERDC/CHL CHETN-I-82 (Sept. 2011) at 17, <https://erdclibrary.erdcdren.mil/jspui/bitstream/11681/1896/1/ERDC-CHL-CHETN-I-82.pdf>. Reduction in wave energy is found at a range of geographic settings and even at high water and wave levels. Möller (2014) at 727; Shepard, C. et al., *The Protective Role of Coastal Marshes: A Systematic Review and Meta-analysis*, 6(11) PLoS ONE at 5 (Nov. 2011), <https://doi:10.1371/journal.pone.0027374> (“While previous individual studies have shown that marsh vegetation attenuates wave energy, the results of our meta-analysis show this to be the case across a range of geographic and hydrodynamic settings.”); Narayan (2017) at 2 (finding that “wetland extents were strongly correlated with avoided damages,” specifically “higher wetland cover resulted in proportionally greater damage reduction”); Wamsley, T. et al., *The potential of wetlands in reducing storm surge*, 37 OCEAN ENGINEERING 59, 67 (2010), doi:10.1016/j.oceaneng.2009.07.018 (traveling over Barataria wetlands reduced the storm surge in all storm types modeled); and Wamsley, T. et al., *Influence of landscape restoration and degradation on storm surge and waves in southern Louisiana*, 51 NAT HAZARDS 207, 214 (2009), available at <https://link.springer.com/article/10.1007/s11069-009-9378-z> (finding “[r]estoration and degradation of marsh resulted in decreases (for restoration cases) and increases (for degradation cases) in both surge and waves” in Breton Sound near New Orleans).

These reductions in storm surge also have tangible, economic benefits to coastal communities. For example, in a regional study examining the benefits from coastal wetlands during Hurricane Sandy, researchers confirmed “the considerable role that coastal wetlands play in reducing risk and property damages from flooding.” *The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA* at 5. Specifically, wetlands reduced 1% of the total economic damage caused by Hurricane Sandy, with up to 16% reductions in some areas. *Id.* The benefits from wetland conservation did not stop along the coast: “[t]ownships at the upstream end of estuaries benefited from the cumulative surge reduction impact of wetlands several kilometres downstream.” *Id.* at 6. Thus, benefits from wetlands at the

Plaquemines LNG site could reduce the economic damage within coastal Louisiana, even for communities located landward.

Despite these substantial benefits, Louisiana is losing its wetlands at a staggering rate. The EPA highlighted this concern in its comments regarding the Plaquemines LNG facility, noting that wetlands like those that will be destroyed here “have experienced a tremendous decline in LA.” Comments of EPA to the U.S. Army Corps of Engineers (attached as Exhibit J), Exhibits at 291. One consequence of this loss is impacts “floodwater abatement” among other impacts. *Id.*; see also Exhibit H-2 at SPM.C.2.5, Exhibits at 273; Lopez, *The Multiple lines of Defense Strategy to Sustain Coastal Louisiana*, JOURNAL OF COASTAL RESEARCH (Fall 2009), <https://www.jstor.org/stable/25737479> (finding loss of wetlands results in “a fundamental alternation of the hydrology of the coast with one result being a more porous coast that is more prone to allowing the movement of gulf waters inland during both fair weather and storm conditions”). Thus, the loss of wetlands at the Plaquemines LNG site will cause direct and significant impacts to the coastal zone.

This loss of wetlands, and their associated mitigation of potential storm impacts, presents a significant risk to the nearby communities of Ironton, Myrtle Grove, West Point a la Hache and the other residences and businesses in proximity to the Plaquemines LNG project that will not be offset by Venture Global’s proposed wetlands mitigation banking. The majority of the proposed credits will be located outside of the Barataria watershed: indeed, roughly 260 acres of the 348 mitigation acres will be located over 100 miles from the project site. Hayes Aff. ¶ 38 & Table 1 Exhibits at 147-148. The location therefore prevents those credits from replacing the storm-resilience services currently provided by wetlands at the Plaquemines LNG site; this fails to counteract the permanent toll to wetlands in the vicinity of the project. Hayes Aff. ¶¶ 39-40, Exhibits at 148. As one report has concluded: “location is a crucial factor in the storm protection services provided by wetlands.” Sun *et al.*, *Coastal wetlands reduce property damage during tropical cyclones*, 117:11 PNAS 5719, 5722 (Mar. 17, 2020) (finding that location must “be accounted for when evaluating off-site compensatory mitigations since even relatively small differences in location between the wetlands lost and the new wetlands created can substantively influence the storm protection services provided”). Therefore, the Plaquemines LNG facility will reduce storm resilience services for communities and ecosystems surrounding the site, causing direct and significant impacts to the coastal waters.

C. The Plaquemines Site is not Above 5 Feet in Elevation or in Fastlands.

LDNR also based its non-CUP determinations on the facility being five ft. above sea level or in fastlands. See *e.g.*, Exhibit C, Special Consideration and Preliminary Determination at 2; Basic Findings and Guidelines, §I.A.1, Exhibits at 175, 180-181.¹⁹ That conclusion is inconsistent with FERC’s FEIS which found “elevations at the LNG terminal site range from

¹⁹ LDNR made the same findings for the October 23, 2020 and December 11, 2020 amendments in their Basic Findings and Guidelines Conformance Checklists at § I.A.1 and Special consideration and Preliminary Determination at 2. See Exhibits at 189, 194-195, 205, 210-211.

-2 and -4 feet (NAVD88) and would be leveled to an elevation of -2 feet (NAVD88).” FEIS at 2-24; Exhibits at 22; *see also* van Heerden Affidavit ¶ 69, Exhibits at 58.²⁰

While this demonstration that the site is less than five feet above sea level is sufficient in itself to invalidate LDNR’s non-CUP finding, the Plaquemines LNG site also requires a CUP because it does not meet the definition of fastlands. “Fastlands” are defined as “lands surrounded by publicly-owned, maintained, or otherwise validly existing levees or natural formations as of January 1, 1979, or as may be lawfully constructed in the future, *which levees or natural formations would normally prevent activities*, not to include the pumping of water for drainage purposes, *within the surrounded area from having direct and significant impacts on coastal waters.*” 43 La. Admin. Code Pt 1, 700 (emphasis added); *see also* LSA-R.S. 49:214.23(6). “Normal” means “[a]ccording to a regular pattern” or “natural,” and “describes not just forces that are constantly and habitually operating but also forces that operate periodically or with some degree of frequency.” Normal, BLACK’S LAW DICTIONARY (11th ed. 2019). Moreover, the regulations specifically direct LDNR to consider and avoid storm-related risks. La. Adm. Code tit. 43, Part I, §701(G) (20) (requiring LDNR to evaluate and avoid “increases in the potential for flood, hurricane and other storm damage; or increases in the likelihood that damage will occur from such hazards”). Thus, any attempt to dodge consideration of these risks would be contrary to both LDNR’s regulations and common sense. As discussed above, the Plaquemines LNG site was submerged by Hurricane Ida, which indicates the existing levees do not protect the site from flooding during the natural cycle of periodic high-water events and storm surges; and the hydrologic connection between the on-site waters and surrounding waters means there will be direct and significant impacts on coastal waters. These events happen with sufficient frequency that they are foreseeable, i.e. “normal,” and the site is not properly classified as fastlands.²¹

Put another way, the existing levees would not normally prevent the activities on the Plaquemines LNG project site from impacting coastal waters during foreseeable storm events. As explained in the van Heerden Affidavit, the existing levees and project site “would be totally overwhelmed” by even a Category 3 hurricane. van Heerden Affidavit ¶ 75, Exhibits at 63.

Based on these recurring events, the site does not properly meet the definition of fastlands. At a minimum, its susceptibility to flooding and impact on coastal waters will continue during the three years until the 26 ft. levees are built.²² Because the 26 ft. levees have

²⁰ Applying the Profile Tool in QGIS to data from the USGS National Elevation Dataset at the location of the proposed Plaquemines LNG export facility site (29.600411, -89.886404), the elevation of this site is 1.235 feet (37.653 centimeters) below sea level.

²¹ As raised in the Healthy Gulf comments of September 24, 2019 (attached as Exhibit K), the site gets flooded at least once a year and there have been repeated levee breaks and overtopping, causing surface connection of the site to the Mississippi River and Barataria wetlands. This includes but is not limited to flooding in Tropical Storm Barry, Hurricane Isaac, and Hurricane Katrina.

²² The construction of Phase I of the project will take approximately 35 months (nearly 3 years). FEIS at 2-20, Exhibits at 21. Thus, depending on when the new levees are constructed, it could be years of improper fastlands

not yet been constructed, LDNR cannot base its fastlands determinations on those hypothetical, future protections.²³ Even if LDNR can consider protections from the planned 26 ft. levees, (it cannot), they have design issues and would at least be overtopped by wave wash with surges as low as 15 feet NAVD88. *van Heerden Aff.* ¶ 76, Exhibits at 63. Thus, there is a high probability that the Venture Global’s proposed Plaquemines LNG facility would be flooded during a major storm, even assuming the 26-ft. ring dike held. *Id.* Unmanageable volumes of highly-contaminated water would be left at the project site, and there is no indication Plaquemines LNG has a workable plan to safely dispose of the wastewater. *Sahu Aff.* ¶ 22, Exhibits at 109. Even more disturbing, if either the 26-ft. or existing levees failed, the site would be inundated with storm surge, which would carry contamination into surrounding waters with virtually no control. *Id.* Thus, these levees will not “normally prevent activities . . . within the surrounded area . . . from having direct and significant impacts on coastal waters,” La. Admin. Code, tit. 43, Part I, §700; La. R.S. 49:214.23(6), and are not a basis for LDNR exempting the site from CUP requirements.

IV. Not Requiring a Coastal Use Permit Would Violate the Louisiana Constitution, Louisiana Statutory Law, and LDNR Guidelines.

The concept that the natural resources of the state constitute a public trust is embodied in Article IX, Section I of the Louisiana Constitution of 1974, which provides:

The natural resources of the state, including air and water, and the healthful, scenic, historic, and esthetic quality of the environment shall be protected, conserved, and replenished insofar as possible and consistent with the health, safety, and welfare of the people. The legislature shall enact laws to implement this policy.

This provision “imposes a duty of environmental protection on all state agencies and officials, establishes a standard of environmental protection, and mandates the legislature to enact laws to implement fully this policy.” *Save Ourselves, Inc. v. Louisiana Environmental Control Com’n*, 452 So. 2d 1152, 1156 (La. 1984). The Louisiana Supreme Court has interpreted this constitutional standard as a “rule of reasonableness” which “requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social and other factors.” *Matter of American Waste and Pollution Control Co.*, 642 So.2d 1258, 1262 (La. Sept. 15, 1994) (quoting *Save Ourselves*);

designation, site flooding, and construction area runoff without the protections of a coastal use permit. *See Sahu Aff.* ¶¶ 19-26, Exhibits at 108-110.

²³ The “lawfully constructed in the future” language in the definition refers to levees that might be built in the future after the regulation was promulgated, and which could protect the area so as to constitute “fastlands,” not which might be built as part of the project being permitted. Moreover, construction of this 26-ft. levee—built for the purpose of destroying existing wetlands—contradicts Louisiana regulations, which direct that “[l]evees constructed for the purpose of developing or otherwise changing the use of a wetland area shall be avoided to the maximum extent practicable.” La. Admin. Code tit. 43, Part I, §703(C). LDNR’s non-CUP designations fail to address or acknowledge that the proposed 26-ft. levee is being designed specifically to construct a project that will destroy wetlands.

Save Ourselves, 452 So.2d at 1157.

The Louisiana Supreme Court discussed several factors, known as the *IT Factors*, which must be satisfied when conducting this balancing process: 1) the potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible; 2) a cost-benefit analysis demonstrates that the social and economic benefits of the project outweigh the environmental impact costs; and 3) there are not alternative projects and alternative sites or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable. *In re Rubicon, Inc.*, 95-0108 (La. App. 1 Cir. 2/14/96); 670 So. 2d 475,483 (citing *Save Ourselves*, 452 So. 2d at 1157). Thus, in order to comply with its public trust duty, LDNR must conduct the IT analysis as part of its review of any CUP application.

The LDNR's non-CUP finding does not exempt it from conducting this IT analysis. To the contrary, LDNR has already conceded that the IT requirements apply by finding that the project satisfied the "IT factors" and was in the public interest. *See* Determination that No Coastal Use Permit is Required and Basis of Decision (Aug. 26, 2019) (attached as Exhibit L-1), Exhibits at 311-312; Determination that No Coastal Use Permit is Required and Basis of Decision (Oct. 26, 2020) (attached as Exhibit L-2), Exhibits at 314-315; Determination that No Coastal Use Permit is Required and Basis of Decision (Dec. 11, 2020) (attached as Exhibit L-3), Exhibits at 317-318.²⁴ Even if this analysis was not required for the non-CUP finding (it was), the new information provided with this petition demonstrates that a CUP should be required and that a new IT analysis be performed. In this analysis, LDNR cannot rest on its previous findings, but must acknowledge that new information demonstrates that the baseline has changed, increasing the already-significant environmental and social costs that must be balanced against project benefits. Conducting this new analysis—and implementing a new CUP based on it—is necessary to "protect" and "restore or enhance the resources of the state's coastal zone." La. R.S. 49:214.22(1).

Furthermore, LDNR has violated its public trust duty by failing to properly consider mandatory factors established in its own rules. Under LDNR guidelines, the agency "shall" utilize certain factors in evaluating whether a CUP is required. La. Adm. Code tit. 43, Part I, §701. These include numerous factors raised in this petition, including without limitation: elevation, flood and storm hazard characteristics of site; techniques and materials used in construction, operation, and maintenance of use; existing drainage patterns and water regimes of surrounding area, including flow circulation, likelihood of and extent of impacts; resulting secondary impacts and cumulative impacts; and extent of long-term adverse impacts. *Id.* at Part I, §701(F). Failure to consider these factors adequately can constitute a breach of LDNR's duty as a public trustee. *See e.g., Sierra Club Delta Chapter et. al. v. Louisiana Department of Natural Resources*, no. 60-961 (Louisiana 25th Judicial District Court, Dec. 23, 2014).

In this case, LDNR's IT Analysis did not consider the risks and loss of wetlands impacts described herein. Moreover, there is no indication it considered environmental justice impacts

²⁴ LDNR also violated its public trust duties by not engaging in "individualized consideration and balancing of environmental factors." *In re Rubicon, Inc.*, 95-0108 (La. App. 1 Cir. 2/14/96).

that are integral the “economic, social and other factors.” As noted, this project will increase risks to the environmental justice communities of Ironton, Myrtle Grove, and West Point a la Hache. According to the U.S. Environmental Protection Agency’s EJScreen tool, the area surrounding the Plaquemines LNG site is majority people of color, and ranks in the 71st percentile compared to the state level. EJScreen Data Screenshot (attached as Exhibit M-1), Exhibits at 320. Moreover, close-up data shows large racial discrepancies between the percentage nonwhite in Ironton, Myrtle Grove, and West Point a la Hache compared with Plaquemines Parish as a whole. *Compare* Justicemap.org data for Plaquemines Parish (attached as Exhibit M-2) (showing a parish-wide nonwhite percentage of 35%), Exhibits at 322, *with* Justicemap.org close-up data (attached as Exhibit M-3) (showing nonwhite percentages greater than 85% in Ironton, Myrtle Grove, and West Point a la Hache), Exhibits at 324. Nevertheless, there is no indication that LDNR considered harms to these communities in its IT analysis. We therefore call on LDNR to meet its public trust duty by performing a new IT analysis based on the events since December 2020 and the new information provided herein, including data showing the harm this project will cause to these environmental justice communities.

V. The Plaquemines LNG Project is Inconsistent with the State Master Plan.

The Louisiana State and Local Coastal Restoration Management Act (the “SLCRMA” or “the Act”) declares it is the “public policy” of this state “[t]o protect, develop, and, where feasible, restore or enhance the resources of the state’s coastal zone.” La. R.S. 49:214.22(1); *see also* La. R.S. 214.22(8) (stating it is state policy “[t]o support sustainable development in the coastal zone that accounts for potential impacts from hurricanes and other natural disasters and avoids environmental degradation resulting from damage to infrastructure caused by natural disasters”).

Consistency with the SLCRMA is mandated by La. R.S. 214.32.B, which states that “[t]he governor, through the secretary, shall ensure that any activity within or outside the coastal zone that affects any land or water use or natural resources of the coastal zone, which is undertaken, conducted, or supported by any governmental body is consistent with the state program.” The provision further requires that the secretary “shall also ensure that such governmental body has considered the sustainability of any activity in the coastal zone and has accounted for potential impacts from hurricanes and other natural disasters.” *Id.* Under Executive Order 2016-09, LDNR is required to ensure its decisions are consistent with Louisiana’s Comprehensive Master Plan for a Sustainable Coast (“Master Plan”). La. Exec. Order No. 2016-09 (April 4, 2016) (requiring all state agencies, departments, and offices to “*administer their regulatory practices, programs, projects, contracts, grants, and all other functions vested in them in a manner consistent with the Coastal Master Plan and public interest to the maximum extent possible.*”).

Although LDNR performed this “consistency determination” for Plaquemines LNG in its non-CUP determinations, *see* Exhibits C, D-1, D-2, L-1, L-2, L-3, the project is neither consistent with the Master Plan nor supports the sustainable development of the coastal zone. The Master Plan clearly states that wetlands are valuable and must be preserved. In fact, one of the key values highlighted in the 2017 Master Plan is that “*Louisiana’s wetlands protect*

valuable infrastructure from storm surge and flooding.”²⁵ Louisiana’s Comprehensive Master Plan for a Sustainable Coast, State of Louisiana, available at http://coastal.la.gov/wp-content/uploads/2017/04/2017-Coastal-Master-Plan_Web-Book_CFinal-with-Effective-Date-06092017.pdf (June 2, 2017). The Master Plan also emphasizes the need to improve hydrology “to address root causes of land loss and reduce flooding risk.” Master Plan at 46. As noted, the project will destroy over 368 acres of crucial wetlands that provide protection from storm surge and flooding, FEIS at 4-48, Exhibits at 28; Hayes Aff. ¶ 38, Exhibits at 147, which is in direct conflict with the Master Plan. Moreover, the Master Plan’s projected land loss data indicates that land just south of the site will largely disappear in the 30-year project lifespan. Parfait Aff., Attach. B, Exhibits at 167-168. Thus, the site will suffer from a diminishing land buffer during its projected lifespan.

In addition to the direct destruction of important wetlands, the current and proposed levee walls for the project are not sufficiently high to protect the coastal zone from environmental impacts, as discussed above in Section III.B. As a result, the wastewater and runoff from the facility would mix with storm surge and be carried inland to populated areas and sensitive areas including coastal waters and wetlands. Thus, any approval of the Plaquemines LNG project is inconsistent with the Master Plan, and LDNR cannot skirt that inconsistency through its non-CUP determinations. LDNR must revoke Plaquemines LNG’s non-CUP determination and must ensure that the project remedies any inconsistencies with the Master Plan prior to issuing a CUP.

CONCLUSION

Based on the above, Petitioners request that LDNR require a CUP for Plaquemines LNG. At a minimum, it should require Venture Global to submit a new application for a CUP that reflects the latest information about the risk of sea level rise, flooding, and hurricane exposure at the site. La. Adm. Code tit. 43, Part I, §723(B)(2)(c) (“Should it be found that a particular activity [exempted from permitting] may have a direct and significant impact on coastal waters, the department may conduct such investigation as may be appropriate to ascertain the facts and may require the persons conducting such activity to provide appropriate factual information regarding the activity so that a determination may be made as to whether the activity is a use subject to a permit.”); *see also id.* at §723(B)(2)(b) (“[I]f a proposed activity exempted from permitting . . . will result in discharges to coastal waters or significantly change existing water flow into coastal waters, then the person proposing the activity shall notify the secretary and provide such information regarding the proposed activity as may be required by the secretary in deciding whether the activity is a use subject to a coastal permit.”).

²⁵ The latest version of the Master Plan was approved by the Louisiana legislature during the 2017 regular session. State Legislature Approves 2017 Coastal Master Plan, Coastal Protection and Restoration Authority, available at http://coastal.la.gov/wp-content/uploads/2017/06/2_Whats-New-Legislature-Approves-Coastal-Master-Plan_2017-04-25_final.pdf.

Finally, because Plaquemines LNG has already begun site disturbing activities and construction,²⁶ LDNR should issue a cease and desist order pursuant to La. Adm. Code tit. 43, Part I, §723(G)(4)(b) that will stop ground disturbing activities, including construction and the destruction of wetlands, unless and until a new application is filed, public comment is taken, and LDNR issues a valid CUP that complies with applicable law and regulations. Petitioners also request LDNR hold a public hearing in Plaquemines Parish to receive public comment before issuing any such permit. La. Adm. Code tit. 43, Part I, §723(C)(6).

Respectfully submitted August 29, 2022.

/s/ Lisa Diaz
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²⁶ Venture Global Plaquemines LNG, LLC and Gator Express Pipeline, LLC FERC Docket Nos. CP17-66-000, CP17-67-000, Monthly Construction Status Report No. 034, August 5, 2022 (attached as Exhibit N).