



November 14, 2022

Submitted at https://www.regulations.gov/docket/MARAD-2019-0093

Ms. Yvette Fields Maritime Administration Office of Deepwater Ports and Offshore Activities 1200 New Jersey Avenue SE, W21-310 (MAR-530) Washington, DC 20590

Mr. Matthew Layman U.S. Coast Guard 2703 Martin Luther King Jr Ave SE, Washington, DC 20020

Re: Comments on Texas GulfLink, LLC, National Environmental Policy Act Supplemental Draft Environmental Impact Statement, Docket No. MARAD–2019– 0093

Dear Ms. Fields and Mr. Layman:

The undersigned groups ("Commenters") submit the following comments to the Maritime Administration ("MARAD") and the U.S. Coast Guard ("USCG") on the Supplemental Draft Environmental Impact Statement ("SDEIS") for Texas GulfLink LLC's license application for its Deepwater Port Project, Docket Id: MARAD-2019-0093 ("GulfLink" or the "Project"). Many of the undersigned groups also submitted comments to MARAD and USCG on GulfLink's Draft EIS on January 22, 2021 (the "January 2021 DEIS Comment Letter"), as well as a follow-up supplemental comment letter on November 8, 2021 (the "November 2021 Supplemental Comment Letter"). The comment letters raise several flaws and omissions in MARAD and USCG's National Environmental Policy Act ("NEPA") review of the Project.

The SDEIS makes several changes to the DEIS.¹ But we are deeply concerned that in nearly every aspect, MARAD and USCG fail to seriously address our extensive comments on the DEIS and repeat the same errors.² We therefore incorporate by

¹ See, e.g., SDEIS at 1-1 to 1-2 (outlining revisions in Project design).

² See App'x C to SDEIS (providing responses to public comments).

reference all our previous comments on the DEIS and all literature cited therein, and we reiterate those comments here. We do appreciate the agencies' new, apparent willingness to enforce the Clean Air Act and NEPA to require GulfLink to install air pollution controls for offshore loading as part of the proposed design of the Project. In the SDEIS, the agencies now specify that GulfLink's proposed Project design includes vessel-mounted vapor recovery controls that would capture and reuse or destroy 98 percent of the Project's volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions from offshore loading.³ MARAD and USCG, as well as EPA in any proposed air permit, must mandate that GulfLink achieve at least these 98 percent emissions reductions, and include sufficient real-time monitoring and reporting to enforce compliance. In addition, the SDEIS makes somewhat clearer GulfLink's maximum throughput, indicating that GulfLink would export no more than 15 VLCCs per month of oil.⁴ That clarity is helpful, and preferable to allowing an even higher throughput, but it does not change the core concerns we continue to have with the Project. As we explain below, regardless of whether it would handle 15 VLCCs or 30 VLCCs per month, GulfLink would be a historically massive oil export terminal, posing serious environmental harm directly, indirectly, and cumulatively.

The SDEIS contains several other failures and omissions that we discuss below. We also cite additional, more recent evidence that supports our comments. Overall, the SDEIS still fails to provide critical information and analyses necessary to complete NEPA's environmental impact review and the DWPA's national interest and financial assurance determinations. Significant information, documents, data, and analyses are still missing from the SDEIS that are essential to the agencies' and public's review of the proposed Project. MARAD cannot validly approve a license based on the existing record, and we ask that MARAD and USCG conduct the additional NEPA review required to address the deficiencies in the SDEIS.

Moreover, the national interest in securing a clean energy future, the urgent need to meaningfully address the climate crisis, and the imperative to halt the environmental injustice facing frontline communities that time and again are asked to bear the full brunt of a petrochemical, oil-and-gas export, and fracking boom, all weigh heavily against licensing the Project.⁵ This is certainly the case because the agencies also recently issued a Final EIS for the nearby SPOT terminal, another large-scale deepwater VLCC terminal that would pose the same types of environmental risks mere miles from

³ See App'x W to SDEIS at 7.

⁴ SDEIS at 2-2.

⁵ See 33 U.S.C. § 1503(c).

GulfLink.⁶ Approving the GulfLink project now would lock-in decades of fossil fuel dependence and infrastructure and pollute Gulf communities already at the bleeding edge of climate disaster, while providing few, if any, benefits to local residents.

I. MARAD and USCG Fail to Study a Reasonable Range of Alternatives to GulfLink's Proposal.

A. The agencies improperly dismiss the no-action and smaller project alternatives, despite providing no justification for building the Project's entire export capacity.

The SDEIS wrongly dismisses the no-action alternative and never considers the alternative of building a smaller-capacity project. Specifically, the agencies must correct two erroneous assumptions in the SDEIS that contribute to this flawed result. First, the SDEIS wrongfully assumes that, although the Project would increase U.S. export capacity by 34 percent, the Project would not increase the volume of U.S. oil exports or increase environmental harm. Second, the SDEIS relies on the extreme and inappropriate assumption that there will be global demand for GulfLink's oil-export capacity until approximately 2050, even though the agencies now acknowledge (as they must) economic forecasts showing that oil demand will enter into a long-term decline around the time this large VLCC export terminal would first come online.^{7,8}

On the first issue, the agencies must compare the Project to a "meaningful" noaction alternative, one that measures the Project against an environmental baseline.⁹ As EPA recently explained in comments on an analogous EIS concerning offshore oil

⁶87 Fed. Reg. 45,849 (Jul. 29, 2022).

⁷ SDEIS at 1-7, 2-64 to 2-68, 5-45 to 5-46.

⁸ In addition, the SDEIS contains what appears to be a data error that misleadingly inflates the size of current U.S. crude-oil exports. The document claims that "United States crude oil export volumes increased from 5.26 MMb/d in 2016 to 8.51 MMb/d in 2020 (USEIA 2021d)." SDEIS at 1-7. The SDEIS's endnotes do not provide a title or a link to the 2021 U.S. Energy Information Administration (EIA) report they cited for those figures. But other 2021 EIA reports confirm that U.S. crude oil exports have never exceeded 4 million barrels per day, and only approached that level briefly in early 2020. In 2016, crude exports averaged less than 0.5 million barrels per day. *See* U.S. EIA, "U.S. crude oil exports reached record levels in 2020 and remain high in 2021" (July 20, 2021), https://www.eia.gov/todayinenergy/detail.php?id=48776. The agencies must verify and correct this data.

⁹ *See* 40 C.F.R. § 1502.14(c); Daniel Mandelker et al., *NEPA Law and Litig*. § 10:33 (2d ed. 2022) ("A no-action alternative is meaningless if it assumes the existence of the very plan being proposed.").

leasing, an agency errs if it assumes "oil and gas production would be the same with and without" the proposed action.¹⁰ That is not a "true" no-action alternative; rather, it avoids the agency's NEPA obligation by assuming the harm from the proposed action is merely part of "the baseline" and therefore "underestimate[s] the incremental environmental impacts of the proposed action alternatives."¹¹ Here, likewise, the agencies erroneously assume that the United States would export the same quantity of oil from the Gulf coast, regardless of the Project, even though the agencies also acknowledge that port congestion and the added costs of reverse-lightering constrain existing Gulf coast ports from exporting more oil.¹² As the Houston Chronicle reported in a recent article on the nearby SPOT project, reverse-lightering costs twice as much as loading oil onto VLCCs directly, and it "can take as long as 10 days."¹³ Moreover, there is limited physical space left for the vessel traffic necessary to engage in additional reverse-lightering at Gulf Coast ports, which are also seeing growing ship traffic in other sectors. Indeed, cargo volumes at Port Freeport almost doubled from 2016 to 2020.¹⁴ A valid no-action alternative would reflect that those same capacity constraints and added export costs would persist, limiting oil export volumes and environmental harm compared to acting. But the agencies fail to do that here.

Second, contrary to the agencies' assumption in the alternatives section of the SDEIS, there is little or no need for the additional U.S. oil export terminal capacity beyond increasing near-term oil industry profits by lowering transportation costs. A quick decline in oil demand is inevitable if the world is to act to avoid or mitigate cataclysmic climate change and if the United States is to fulfill its national climate

¹⁰ See Exhibit [], Ltr from U.S. EPA Office of Policy to Bureau of Ocean Energy Mgmt. (BOEM), re: PEIS for the 2023-28 Nat'l OCS Oil and Gas Leasing Program, 4 (Oct. 6, 2022) ["EPA Letter to BOEM"].

¹¹ See Exhibit [], EPA Letter to BOEM at 4; see also Ctr. for Biological Diversity v. Bernhardt, 982 F.3d 723, 740 (9th Cir. 2020) (rejecting agency's failure to reasonably forecast the likely changes in the oil market leading to less oil consumption, and potential environmental benefits, from not acting to approve Arctic oil drilling project).

¹² SDEIS at 1-8, 2-67.

¹³ See Exhibit [], Amanda Drane, A pipeline at Surfside Beach? Residents wants to stop project, Houston Chronicle (Aug. 23, 2022),

https://www.houstonchronicle.com/business/energy/article/An-offshore-oil-terminal-would-put-a-pipeline-17390727.php.

¹⁴ U.S. Army Corps of Eng'rs, *Waterborne Commerce of the United States: Calendar Year 2020*, Part 2-Waterways and Harbors Gulf Coast, Mississippi River System and Antilles, 207 (2020), https://librarydocs.s3-us-gov-west-1.amazonaws.com/d9f5c91d-31a2-47f1-aa9f-

<u>3a3c4133d54f</u><u>wcusmvgc20.pdf?AWSAccessKeyId=AKIAKATYSROTDPIXLBQA&Expires=1</u> 665592035&Signature=y6WwAq7fL5FuRaTlrLmjtlHAR0c%3D.

policy. The agencies must account for this data on declining oil demand as compared to existing U.S. oil export capacity, which argue strongly in favor of either the no-action alternative or approving only a smaller-capacity export project.

To begin, the United States already has an abundance of onshore oil export terminals along the Gulf coast, as well as deepwater VLCC capacity at the Louisiana Offshore Oil Port, to handle its current export volumes, let alone to serve the shrinking future global market described below.¹⁵ Existing U.S. Gulf coast oil export capacity is sufficient to handle at least 5.5 million barrels per day of exports and potentially more, depending on economic conditions.¹⁶ To date, the United States has, at most, exported less than 4 million barrels of oil per day.¹⁷ The SDEIS seems to be banking on U.S. exports growing far higher than they are today, threatening to outstrip that capacity. But the opposite is likely to be the case.

Demand for GulfLink's oil is likely to decrease over the life of the Project, potentially rapidly. Numerous international reports confirm the world is approaching peak oil demand. For example, since our DEIS comments, McKinsey and Company released its 2022 Global Energy Perspectives report.¹⁸ McKinsey concludes that in all planning scenarios, "[p]eak oil demand is projected to occur between *2024 and 2027*, driven largely by EV [electric vehicle] uptake—a development that is already underway."¹⁹ McKinsey forecasts that "[c]rude oil demand is expected to decline rapidly after 2030."²⁰ Demand for oil for road vehicles, presumably the primary end-use

Summary.pdf [hereinafter: "McKinsey Report"].

¹⁵ Exhibit [], Drane, *supra* note [] (quoting Rystad Energy and S&P Global analysts showing U.S. still has more existing oil export capacity than is necessary to meet current demand). ¹⁶ See Exhibit [], Drane, *supra* note []; Eunice Bridges, *Argus Live: Corpus Christi Crude Exports Nearly Double*, Argus Media (Jan. 27, 2021), <u>https://www.argusmedia.com/en/news/2181077-</u> <u>argus-live-corpus-christi-crude-exports-nearly-double</u>; Final EIS for Sea Port Oil Terminal Project ("SPOT"), 5-21 (July 29, 2022), in GulfLink docket on regulations.gov, MARAD-2019-0011-5032, <u>https://www.regulations.gov/document/MARAD-2019-0011-5032</u> (relying on same Argus Media report).

¹⁷ SDEIS at 1-8; *see also* EIA, Petroleum & Other Liquids, "U.S. Exports of Crude Oil" (last visited Oct. 30, 2022),

<u>https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCREXUS2&f=M</u> (showing highest-ever U.S. monthly average was 3.8 million barrels per day of crude oil exports).

¹⁸ Exhibit [], McKinsey & Co., *Global Energy Perspective* 2022, Public Exec. Summ. (Apr. 2022), <u>https://www.mckinsey.com/~/media/McKinsey/Industries/Oil%20and%20Gas/Our%20Insights/</u> <u>Global%20Energy%20Perspective%202022/Global-Energy-Perspective-2022-Executive-</u>

¹⁹ Id. at 6 (emphasis added).

²⁰ Id. at 13.

for GulfLink's crude oil,²¹ would drop "75% by 2050 after peaking in the early 2020s, driven by slowing growth in the number of cars on the road, increased efficiency, and accelerating uptake of electric vehicles (EVs), with bio- and synfuels decreasing demand for crude oil further."²² Similarly, in its 2022 World Energy Outlook report, the International Energy Agency (IEA) projects oil demand to enter decline in the "mid-2020s," if countries follow through to enact policies to implement their current greenhouse-gas-reduction pledges (the "APS" line in the figure below).²³ Demand would then fall by 40 percent between 2030 and 2050.²⁴ It is only in one unlikely IEA scenario, in which nations take no further action through 2050 to spur an energy transition to address climate change, that the IEA finds that oil demand could plateau as the SDEIS assumes (the "STEPS" path in the figure below).²⁵

Figure X. IEA Global Oil Demand Scenarios²⁶

²³ Exhibit [], IEA, World Energy Outlook 2022, 329–30 (Oct. 2022),

https://iea.blob.core.windows.net/assets/9d0a2db4-965a-4e80-83da-

²¹ *Cf.* SDEIS at 5-46 to 5-47 (calculating GulfLink's downstream greenhouse gas emissions based on assumption of refining the crude oil into or diesel and combusting it).

²² Exhibit [], McKinsey Report at 13, *supra* note [].

<u>562f038ff514/WorldEnergyOutlook2022.pdf</u> [hereinafter: "IEA Energy Outlook"] ²⁴ *Id.*

²⁵ Exhibit [], IEA Energy Outlook at 329–30; *see also id.* at 32 (stating that the STEPS scenario simply "retain[s] current policy settings").

²⁶ Exhibit [], IEA Energy Outlook at 330.



Figure 7.1
Global oil demand and crude oil price by scenario

Notes: STEPS = Stated Policies Scenario, APS = Announced Pledges Scenario; NZE = Net Zero Emissions by 2050 Scenario; mb/d = million barrels per day.

The demand for oil will only drop more sharply if global actors further align their enforceable policies and actions to reach worldwide net-zero greenhouse gas emissions by 2050, a threshold that climate science shows is necessary to avoid triggering the most catastrophic impacts. For instance, the IEA predicts that oil demand will have peaked in 2019 if nations strengthen their enacted policies to align with a global net-zero emissions outcome (as depicted in the "NZE" scenario in the figure above).²⁷ The agencies must account for concerted climate action and policies to promote an energy transition, by realistically considering the no-action alternative and the alternative of a smaller project in what would become a substantially reduced oil market.

Climate and the energy transition are not the only headwinds to oil demand and production to meet GulfLink's ambition. Adding to those issues are inflation,²⁸ volatility in the price of oil, and the imperative that U.S. shale oil companies first pay down their debts and deliver greater investment returns, all of which could prevent the U.S. oil industry from raising production to the record levels the SDEIS assumes, even in the

²⁷ Exhibit [], IEA Energy Outlook at 330.

²⁸ Exhibit [], IEA Energy Outlook at 355 (explaining that U.S. producers' costs increased by about 15 percent from 2019 to 2022).

near term.²⁹ According to S&P Global oil analyst, Jim Burkhard, in the coming years, these factors combined could double the cost of capital to fund new oil projects.³⁰ Longer term, the IEA predicts that U.S. fracked shale oil will suffer the sharpest production declines of any oil-producing nation after 2030 because of the relatively rapid decline in the production rates of these types of wells and because drillers will begin to deplete the recoverable oil that remains in key U.S. shale formations.³¹ But the agencies fail to consider these factors in the SDEIS and fail to seriously examine the environmental benefits of denying the license or slimming the scale of the Project.

B. The SDEIS must assess alternative site locations and alternative designs for the Jones Creek Terminal to mitigate the significant flooding risk at the proposed site.

GulfLink fails to justify its proposal to construct the 8.5-million-barrel Jones Creek Terminal to store crude oil in a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area, within a 100-year floodplain, or even consider alternative sites to mitigate flood risk. Federal policies and NEPA require the agencies to consider upland site alternatives that, at least, would move the terminal outside the forecasted *500-year* floodplain, or to consider design alternatives to mitigate the flooding risk onsite from such storms. And here, GulfLink fails to justify locating the terminal in a floodplain to begin with. Revising the SDEIS to address flooding risks is especially important because any foreseeable flooding-related oil spills or accidents would put neighboring environmental justice communities, like in Jones Creek,³² and vulnerable coastal ecosystems, like in the Justin Hurst Wildlife Management Area, squarely in harm's way.³³

²⁹ Exhibit [], Trey Cowan, *Shale Producers Find They Have Little Wiggle Room in* 2022, Institute for Energy Economics & Financial Analysis (IEEFA) (Apr. 2022), <u>https://ieefa.org/wp-content/uploads/2022/04/Shale-Producers-Find-Little-Wiggle-Room-in-2022 April-2022.pdf</u>.

³⁰ Exhibit [], James Osborne, *Oil Companies Struggle to Secure Financing, as Banks Feel Climate Pressure,* Houston Chronicle (Aug. 18, 2022),

https://www.houstonchronicle.com/business/energy/article/Oil-companies-struggle-to-securefinancing-as-17380634.php.

³¹ Exhibit [], IEA Energy Outlook at 340–41.

³² See Citizens for Clean Air & Clean Water, Comments on the GulfLink DEIS, 27 (Jan. 2021) [hereinafter: "CFCACW Comments"]; SDEIS at 3-544.

³³ See SDEIS at 2-7, 3-42 ("[A] worst-credible onshore spill from the proposed pipeline or the proposed TGL Jones Creek Terminal would flow overland and into small drainages, Jones Creek, the ICWW, and/or the Brazos River on its way to the GoM.").

NEPA generally requires agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives," to the proposed action, as well as to "[i]nclude appropriate mitigation measures not already included in the proposed action or alternatives."³⁴ That obligation is heightened with respect to flooding impacts by Executive Orders and FEMA policy that specifically direct agencies to avoid or substantially mitigate the risks from projects in floodplains. Executive Order 11988, on floodplain management, instructs licensing agencies in NEPA reviews of projects proposed for floodplains to "consider alternatives to avoid adverse effects and incompatible development in the floodplains."³⁵ If an agency concludes that the only practicable alternative is to approve such a project in a floodplain, the agency must first "design or modify its action in order to minimize potential harm to or within the floodplain . . . [and] prepare and circulate a notice containing an explanation of why the action is proposed to be located in the floodplain."³⁶ The "floodplain," as used in the Executive Order, is generally the 500-year floodplain.³⁷ But agencies are also authorized to account for the ways climate change could expand flood risk during the life of a project like GulfLink's, with the help of "the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science."³⁸ Similar to these Executive Orders, FEMA recommends that no person build new facilities that handle hazardous substances, like crude oil, in a 500year floodplain.³⁹ And if such a facility must be built within a floodplain, "freeboard,

³⁸ See Exec. Order No. 13960, "Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input," 80 Fed. Reg. 6425 (Jan. 30, 2015) (recognizing that "[t]hese impacts are anticipated to increase over time due to the effects of climate change and other threats"). President Obama issued Executive Order 13960, which among other things, amended Executive Order 11988's definition of "floodplain" to broaden it. *See id.;* Exec. Order No. 11988 (previously defining 'floodplain' to include "at a minimum, that area subject to a one percent or greater chance of flooding in any given year," i.e., the 100-year floodplain). President Trump revoked Executive Order 13960, but President Biden reaffirmed and reinstated it after taking office. It now governs the agencies' review. *See* Exec. Order No. 14030, "Climate-Related Financial Risk," 86 Fed. Reg. 27967 (May 20, 2021).

³⁹ FEMA, Managing Floodplain Development through the Nat'l. Flood Insurance Program, at 6-18, <u>https://www.fema.gov/pdf/floodplain/is_9_complete.pdf</u>; *see also* FEMA, Glossary, Critical Facility, <u>https://www.fema.gov/glossary/critical-facility</u> (stating same and providing that "[a] critical facility should not be located in a floodplain if at all possible.").

³⁴ 40 C.F.R. § 1502.14 (2019).

³⁵ Exec. Order No. 11988, "Floodplain Mgmt.," 42 Fed. Reg. 26951 (May 24, 1977).

³⁶ Exec. Order No. 11988.

³⁷ See Exec. Order No. 13960, "Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input," 80 Fed. Reg. 6425 (Jan. 30, 2015) (amending the definition of "floodplain" in Exec. Order No. 11988).

elevation above the 500-year floodplain and elevated access ramps . . . should be required."⁴⁰ In other words, the bare minimum standard to comport with FEMA's guidance is that such facilities must be located outside a floodplain, or at least be elevated beyond the 500-year flood elevation.

In serious conflict with those policies, the SDEIS does not explore alternatives that would reduce the flood risk inherent in GulfLink's proposal. MARAD and USCG neither review any upland site alternatives, nor do they assess mitigation measures or design alternatives, such as elevating structures at Jones Creek above expected 500-year flood levels.

1. MARAD and USCG must examine upland alternatives, especially because GulfLink fails to support its desire to locate near Jones Creek.

There is no reason to site the Project in a floodplain to begin with, and the agencies should add sites outside of the 500-year floodplain to their alternatives analysis. While the agencies admit in the SDEIS that an upland alternative "could avoid or minimize potential impacts from storm surge and flooding as well as impacts to floodplains," the agencies ultimately focus only on GulfLink's preferred site and the immediate vicinity.⁴¹ Specifically, the agencies affirm GulfLink's decision to limit its search for potential oil-storage sites to just an 8-mile radius from the coastal Bryan Mound location of the U.S. Strategic Petroleum Reserve (the "Strategic Petroleum Reserve"), because GulfLink asserts that it will attempt to connect the terminal by pipeline to the Strategic Petroleum Reserve.⁴² The SDEIS's reliance on GulfLink's bare assertion is flawed.

As the SDEIS acknowledges, to interconnect with the Strategic Petroleum Reserve, GulfLink would first need approval from the U.S. Department of Energy ("DOE"). GulfLink offers no evidence that it has even sought, let alone that it is likely to secure, DOE Energy approval.⁴³ The SDEIS also does not clarify how exactly GulfLink proposes to use the Strategic Petroleum Reserve should it succeed in gaining approval from DOE—whether to export the Reserve's stored oil and/or whether to use DOE pipeline or storage capacity to transport oil to Jones Creek.⁴⁴ DOE maintains the Strategic Petroleum Reserve "for storage of crude oil to be used in emergencies."⁴⁵ The

⁴⁰ Id.

⁴¹ SDEIS at 2-69.

⁴² SDEIS at 2-69; see also App'x AA to SDEIS (describing GulfLink's site selection process).

⁴³ See SDEIS at 2-1 (indicating that the Project does not have Department of Energy approval).

⁴⁴ See SDEIS at 2-1.

⁴⁵ SDEIS at 3-320.

United States has only sold oil from the Strategic Petroleum Reserve on a handful of occasions throughout its history, and only after Presidential orders justifying those sales based on national energy security.⁴⁶ It is not at all clear how allowing GulfLink access would further the national security interests protected by the Strategic Petroleum Reserve, and, at least as far as the public can tell, GulfLink's proposal is mere conjecture. But the agencies appear set to rely on GulfLink's speculation to approve locating the terminal in an exceedingly risky floodplain area anyway.

Meanwhile, GulfLink could access the same Permian Basin oil it seeks to export at points further inland, in an area less vulnerable to flooding.⁴⁷ MARAD and USCG must weigh the environmental benefits of such an option, as well as any drawbacks.

2. MARAD and USCG must examine mitigation measures and design alternatives to handle at least 500-year floods the terminal could face during its lifespan.

Second, MARAD and USCG incorrectly determine that the GulfLink's design adequately addresses flooding risks at the Jones Creek site. The agencies explain nowhere how the terminal would be sufficiently elevated or equipped to handle a 500year flood, or the even worse storms that climate change will bring to the area in the future.⁴⁸ The agencies concede that federal modeling shows there is a risk of catastrophic consequences from large storms. The Jones Creek terminal site lies at 10' above sea-level, just 6.5 miles from the Gulf of Mexico.⁴⁹ The SDEIS presents National Oceanic and Atmospheric Administration (NOAA) data showing that a hurricane of above Category-2 strength could produce a 6' storm surge, or more, at the Jones Creek Terminal.⁵⁰ And, "[a]s predicted by NOAA's storm surge hazard maps, a storm surge of Category 3 or greater would overtop the secondary containment berm" at the site.⁵¹

⁴⁶ See U.S. Dep't of Energy, "Strategic Petroleum Reserve,"

<u>https://www.energy.gov/ceser/strategic-petroleum-reserve</u>; *see generally* 42 U.S.C. §§ 6234, 6241 (providing for procedure and limited circumstances under which DOE may, by Presidential order, draw down the Strategic Petroleum Reserve's oil supply).

⁴⁷ SDEIS at 2-1 (explaining GulfLink's oil "would be sourced from the Houston market via multiple long-haul pipelines, which run from" the Permian Basin in West Texas to the Houston region).

⁴⁸ Exec. Order Nos. 11988, 13960; FEMA, Managing Floodplain Development through the Nat'l. Flood Insurance Program, at 6-18, <u>https://www.fema.gov/pdf/floodplain/is_9_complete.pdf.</u>

⁴⁹ App'x AA to SDEIS at 9.

⁵⁰ SDEIS at 3-343.

⁵¹ SDEIS at 3-344.

Yet the agencies then fail to address the risk that such tropical storms, or even a 500-year rainstorm, would pose.⁵² Instead, the SDEIS relies on a hydrology study prepared by GulfLink's consultant, which found the terminal "property would not cause or increase flooding, nor be affected by flooding," from a present-day 50- and 100-year storm. GulfLink's study did not examine a 500-year flood, let alone the worsening storms expected in future years due to climate change.⁵³ In addition to examining site locations outside of a floodplain, MARAD and USCG must evaluate design alternatives that would increase protection at the site against the increasingly severe, 500-year storms the area might face, not just the present-day 100-year and 50-year floods GulfLink evaluated.

II. The SDEIS Fails to Comply with NEPA's Requirement that Federal Agencies take a Hard Look at Environmental Impacts.

A. The SDEIS continues to improperly avoid analysis of oil spills risks and consequences.

The SDEIS continues to omit any information to verify the specifics of GulfLink's oil spill response plans, even though the agencies rely on the undisclosed plans to conclude that GulfLink could mitigate the consequences of any spill using the methods contained therein. And the SDEIS fails to do a true oil spills risk assessment that would quantify the likelihood of spills of varying sizes across the lifespan of the Project. Both errors violate NEPA and leave the public unable to understand how the Project's spills could harm the environment.

1. The SDEIS fails to provide sufficient information and analysis of the potential response actions it may take in the event of an oil spill,

⁵² SDEIS at 3-344.

⁵³ See SDEIS at 3-41, 3-44, 3-344. The SDEIS also explains that GulfLink would install containment berms and a stormwater retention pond, as well as elevate the site to be 2' above the 100-year flood levels. *Id.* Again, this fails to address the 500-year floodplain that the federal agencies must consider. And it is cold comfort when, as just described, the agencies also found that a Category 3 hurricane, let alone a Category 4 or 5, would overtop the containment berm and exceed 100-year flood level. SDEIS at 3-344.

preventing adequate and meaningful public participation in reviewing the *Project*.

The SDEIS continues to withhold necessary information concerning oil spill response from public review, thwarting public participation in the NEPA process. As discussed in our January 2021 DEIS Comment Letter, the DEIS unlawfully withheld information necessary to understand GulfLink's anticipated oil spill response plans.⁵⁴ GulfLink's missing oil spill response plans contain crucial information needed to verify and groundtruth the agencies' assertions that all potential harms from oil spills will be minimized by GulfLink adhering to the company's response plans. NEPA prohibits an agency to "incorporate by reference material based on proprietary data that is not available for review and comment."⁵⁵ All incorporated material referenced must be "reasonably available for inspection by potentially interested persons within the time allowed for comment."⁵⁶

The SDEIS has perpetuated its NEPA violation, now including several repeated references to "BMP B46."⁵⁷ BMP B46 itself allegedly incorporates several other documents, claiming that "[t]he Applicant has multiple plans in place . . . to minimize the potential for a spill, to reduce the flow of oil from the spill in order to minimize the size of the impacted area, and to respond quickly and effectively to an incident to minimize adverse effects."⁵⁸ As stated in the SDEIS:

BMP B46 requires that the Applicant would respond to crude oil spills as outlined in their Offshore Oil Spill Consequence Report (The Response Group 2019b); Tactical Response Plan (The Response Group 2019c); and the (proprietary) TGL Operations Manual (TGL DWP Application, Volume IV, Appendix H). In addition, because Texas GLO and PHMSA have regulatory jurisdiction in the nearshore environment, elements of the Discharge Prevention and Response Plan required by the Texas GLO and the Hazardous Liquid Pipeline Operations, Maintenance, and Emergency Response Manual (TGL DWP Application, Volume IV, Appendix I) would apply to spills in the nearshore environment.⁵⁹

⁵⁴ January 2021 DEIS Comment Letter at 8, 25–26.

^{55 40} C.F.R. § 1501.12.

⁵⁶ Id.

⁵⁷ See, e.g., SDEIS at 3-71, 3-125, 3-149, 3-161, 3-195, 3-219, 3-261, 3-269, 3-272, 3-277, 3-291, 3-301. ⁵⁸ *Id*.

⁵⁹ Id. at 2-4.

Yet of the five cited references supposedly reflected in BMP B46, none are included in the SDEIS and only two are publicly available. The agencies are withholding the TGL Operations Manual as "proprietary," Commenters were unable to find the referenced Discharge Prevention and Response Plan, and the agencies are withholding the Hazardous Liquid Pipeline Operations, Maintenance, and Emergency Response Manual as "confidential business information."⁶⁰

Furthermore, the SDEIS states that, as a follow-up to the Phase I Independent Risk Analysis (IRA) report that presented oil spill risk analyses for offshore oil spills, USCG released a new report—Phase II IRA—which documents the selected mitigation measures for oil spills that would be incorporated into the TGL Operations Manual.⁶¹ The SDEIS, however, claims that because "[t]he Phase II IRA report contains security sensitive information," it "is not available to the public."⁶² It further claims the TGL Operations Manual is "proprietary."⁶³

MARAD and USCG are continuing to violate NEPA by incorporating materials by reference to satisfy their impacts analyses and withholding these important materials from public scrutiny and review due to their alleged proprietary or confidential nature.⁶⁴ The agencies must release the relevant information to inform the public of the anticipated mitigation measures to minimize adverse effects on the environment and open a supplemental comment period to allow for public comment on the materials.

2. The SDEIS fails to quantify and evaluate the probability and frequency of different sized oil spills for all three types of crude oil the Project could export.

The SDEIS focuses solely on three very large spill sizes: 226,000 bbl, 452,000 bbl, and 565,000 bbl—with return periods of 100, 500, and 1 million years—to evaluate crude oil spill risk.⁶⁵ The SDEIS's analysis of oil spill impacts does not properly account for the full scope and extent of environmental harm. As discussed in our January 2021 DEIS Comment Letter, in order to understand the full scope of environmental impacts from the proposed GulfLink project, MARAD and USCG must evaluate the frequencies and probabilities of various spill sizes across all three crude oil types the facility might

https://www.regulations.gov/document/MARAD-2019-0093-0002.

⁶⁰ See Texas Gulf Link – Deepwater Port Application /Appendix,

⁶¹ SDEIS at 4-23.

⁶² Id.

⁶³ *Id.* at 2-4.

⁶⁴ 40 C.F.R. § 1501.12.

⁶⁵ See SDEIS at 4-25, 4-28.

handle. Only with this information can the agencies and public determine the overall environmental risk posed by spills and proper risk management protocols necessary to protect coastal and marine environments.⁶⁶ Without these estimates, it is impossible for an EIS to evaluate how frequently a spill will happen, what amount of time the environment has to recover, and what mitigation efforts must be taken or what alternatives to consider to reduce the probability of a spill. Smaller spills may impact a smaller area each time they occur, but their higher frequency could cause sustained environmental harm that prevents sufficient time for the environmental resources and animals to recover, or may cause cumulative long-lasting impacts to species and habitat. Larger spills may happen less frequently, but understanding the probability of different sized large spills can provide the agencies and applicant valuable information regarding the most likely large spill that could occur with reasonable certainty within the lifetime of the Project. Understanding both the sizes and frequency of oil spills would enable the agencies and applicant to plan appropriate mitigation and response actions accordingly, and allow the public to weigh in on the sufficiency of those plans.

Commenters explained the importance of this analysis in detail in prior comments, yet the agencies have continued to fall well short of the hard look requirement under NEPA in evaluating environmental impacts. In the SDEIS, the agencies have updated the Risknology report (Appendix L of the SDEIS), which modeled worst-credible spills with 100-year and 500-year return periods and which Commenters highlighted had a multitude of flaws.⁶⁷ The agencies claim the updates to the report in the SDEIS include adding "risk profiles for oil spill frequency and spill size for all offshore components,"⁶⁸ yet the only spill risk addition to Appendix L is the inclusion of the 565,000 bbl worst credible discharge scenario, which is taken from Appendix I of the SDEIS.⁶⁹ None of the analysis for oil spills has changed in the Risknology report and thus, all the previous flaws that existed at the DEIS stage continue to exist today.⁷⁰

The SDEIS now includes a figure from the Risknology report in its offshore oil spill risk analysis, which contains a spill exceedance curve that allegedly "shows the

⁶⁶ January 2021 DEIS Comment Letter at 34–36.

⁶⁷ Id. at 29–38.

⁶⁸ SDEIS at 4-1.

⁶⁹ App'x L to SDEIS at 30.

⁷⁰ See January 2021 DEIS Comments, at 29–32; Exhibit [], Susan Lubetkin, *Technical review of the offshore oil spill risk analysis in Appendix L of the Texas GulfLink Deepwater Port License Application Draft Environmental Impact Statement* [hereinafter "Lubetkin Technical Review"].

expected frequency (per year) of exceeding a specified spill quantity due to any and all potential spill scenarios" (reproduced below).⁷¹



The Risknology report and SDEIS, however, do not engage in any analysis of this figure and the figure itself is fundamentally flawed for several reasons:

First, the figure's Y-axis presents annual probabilities on a logarithmic scale in scientific notation, which is not easily discernible. An average reader cannot glance at this figure and understand what the chart is showing—the figure, at a minimum, needed to present probabilities as percent probabilities. For instance, the top of the figure, "1.00E+00," is equivalent to a 100% probability. The next notation below it, "1.00E-01," is equivalent to a 10% probability. Across the top of the graph, the tick marks represent 20,000-barrel increments. The dotted line crosses "1.00E-01" at 180,000

⁷¹ SDEIS at 4–26; 4-27, Fig. 4.6.1-1.

bbls. This means **there is a 10% chance of a 180,000 bbl oil spill**, *every year*. The intermediate grey lines between "1.00E+00" and "1.00E-01" each mark another 10% in likelihood of a spill occurring. Had this figure represented probabilities as percentages, a reader would see that this figure depicts that **there is more than a 20% chance of a 100,000 bbl oil spill**, *every year*.⁷²



Second, the figure only presents annual probabilities, not cumulative probabilities over the lifetime of the project. The GulfLink terminal is anticipated to operate for 30 years.⁷³ To understand true oil spill risk, spill probabilities need to be presented as percent probabilities over that three-decade span of time. Dr. Susan C. Lubetkin, an expert in environmental risk statistics and analysis, conducted a technical review of the GulfLink project and, using the data presented in Risknology's report, estimated that there is a 99.96% probability that at least one spill will occur either from a leak of 10 mm or greater diameter hole or from a release of more than 10% of the cargo from a VLCC (i.e., 200,000 bbl) over 30 years.⁷⁴ In fact, based on that same data, there is a 46.1% chance that there will be either a full bore rupture leak or a VLCC release of more than 20% of its cargo capacity (i.e., 400,000 bbl) over that same period.⁷⁵ As a point of comparison, the SDEIS's worst credible discharge was estimated to be a release of 25% of a tanker with a 2,260,000 bbl capacity (i.e., 565,000 bbl), but the return period of

⁷² See also Lubetkin Technical Review at 31, 35.

⁷³ SDEIS at 2-62.

⁷⁴ Lubetkin Technical Review at 31.

⁷⁵ Id. at 31, 37.

such an event was determined to be one million years.⁷⁶ Understanding the high probabilities of these other very large oil spills occurring is necessary to determining the environmental risk posed by oil spills from GulfLink over the project's lifetime.

Third, the figure does not show the expected number of spills of the different spill sizes over the lifetime of the project. By simply multiplying the number of years GulfLink will operate by frequency per year, the agencies could calculate the number of expected spills of a certain size. For instance, a frequency of 0.20 100,000 bbl spills per year means that over the span of 30 years, the agencies can expect **six** 100,000 bbl spills to occur. It is important to know that the agencies' own expert report anticipates there will be six 100,000 bbl spills if GulfLink is approved. This information should be considered and conveyed transparently to the public.

Fourth, the figure irrationally overlays the probabilities of multiple, independent sources of oil spill release, instead of combining the probabilities together to estimate the probabilities of oil spills from the project as an integrated whole. As stated by Risknology in its report, the figure includes spill probabilities of "releases from the Metering System aboard the platform and SPM Buoys," releases from subsea pipelines, and releases from marine vessel collisions and strikes.⁷⁷ Each of these project components have independent probabilities of oil spills of different sizes. For instance, the probability of a 180,000-bbl spill differs depending on whether it occurs from a blowout at the platform, a rupture of a pipeline, or a vessel collision. That is why in the figure, there are several points along a vertical line at the 180,000 bbl mark—each is a separate probability of a different project component. The same is true at the 226,000 bbl, 452,000 bbl, and 565,000 bbl marks. This piecemeal approach to probability, however, discounts the true probabilities of oil spills. Such a spill can occur from any of the project components. In order to estimate the total probability of an oil spill of a certain size from anywhere along the GulfLink terminal, Risknology needed to combine the probabilities and present a single point for each spill size showing the total combined likelihood of such a spill.⁷⁸ Doing so would reveal that the sum probability of these large-size spills is far higher than the parts.

MARAD and USCG have again failed to meaningfully address spill risk in this SDEIS, only quantifying oil spill risk as three very large, very infrequent spill sizes with

⁷⁶ SEIS at 4-25.

⁷⁷ App'x L to SDEIS at 30.

⁷⁸ Lubetkin Technical Review, at 3 ("actual offshore spill risk for each year is a combination of the spill risks across all the offshore components").

expected return periods of 100 years and longer.⁷⁹ The agencies have the capabilities and the data to engage in adequate spill risk analysis and evaluate the probabilities and numbers of various sized spills reasonably expected to occur over the lifetime of the GulfLink project. Doing so would reveal highly relevant and important information on spill risk to determine the full scope of environmental impacts of approving this project. By failing to provide a true consideration of oil spill risk, the agencies have prevented meaningful discussion of environmental impacts under NEPA.

B. The SDEIS fails to adequately analyze the risks to wildlife, including to species protected under the Endangered Species Act.

Commenters have repeatedly raised concerns about the impacts of the Project on wildlife, including from oil spills, vessel strikes, noise, climate change, ocean acidification, and other factors. The Project poses a threat to multiple federally protected species, like the Rice's whale, eastern black rail, sea turtles, and Gulf sturgeon. We continue to assert the objections raised in previous comments, because the SDEIS fails to adequately address them. However, it is important to highlight several urgent issues that came into sharper focus after our January 2021 DEIS Comments.

3. The Project and its associated vessel traffic could add to the existential threat facing the endangered Rice's whale, according to new data.

The SDEIS fails to consider new scientific data showing that the endangered Rice's whale may occur in the area of the Project and along shipping routes used by tankers that would fill at GulfLink. Meanwhile, scientists made clear in a recent letter that the Rice's whale is perilously close to extinction, and that federal permitting agencies in the Gulf of Mexico must take action to protect the species to avert that calamity. At the very least, these new scientific studies constitute new information triggering MARAD and USCG's duty to supplement the analysis in the SDEIS and allow for further public comment. As part of that analysis, the agencies must consider requiring additional mitigation measures or alternatives to better protect Rice's whales from direct threats posed by the GulfLink project. Some of these measures include requiring all Project-related vessels to travel at speeds no greater than 10 knots and to prohibit vessel traffic in the action area during nighttime hours; and restricting activity during months that the whales are more likely to be in the Project area in greater numbers.

⁷⁹ See SDEIS at 4-28.

The Rice's whale is the only large whale species to fully reside in United States waters, exclusively in the northern Gulf of Mexico. Population estimates totaling less than 51 individuals make this species one of the most endangered marine animals on Earth.⁸⁰ To ensure recovery, the species cannot afford to lose more than one whale approximately every fifteen years as a result of human impacts.⁸¹

The SDEIS details the Project's numerous potential threats to harm the marine environment and species within the Project area, as well as along associated shipping transit routes. Impacts from this project on marine species, such as whales, dolphins and sea turtles, include ship strikes, noise stressors, chemical pollution, lighting, and general habitat deterioration and destruction.⁸² Activity in shipping channels, like shipping traffic to and from the GulfLink marine loading site, could result in ship strikes, as well as disturb whale habitat by creating noise and occupying or destroying important whale feeding and breeding areas. Increased boat traffic can displace whales from their habitat.⁸³ Noise associated with the project is of particular concern to marine mammals, because many species rely on sound as a primary sense for navigation, finding prey, avoiding predators, and communicating with other conspecific individuals.⁸⁴ Noise can cause behavioral disturbances in whales, mask sounds that are important to whales, including their own vocalizations, and excessive noise can directly injure whales and, in some cases, lead to death.⁸⁵

⁸² SDEIS at ES-23.

⁸³ *Id.* at 3-176.

⁸⁵ Id.

⁸⁰ NOAA Fisheries, *U.S. Atlantic and Gulf of Mexico Draft Marine Mammal Stock Assessment* (2020), <u>https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-12/Draft%202020%20Atlantic-Gulfmarine%20mammal%20stock%20assessment%20reports.pdf?null</u> (The best abundance estimate available for this species of whale is 51 (coefficient of variation (CV)=0.50)).

⁸¹ NMFS, U.S. Atlantic and Gulf of Mexico Draft Marine Mammal Stock Assessment, 286–95 (2021), <u>https://s3.amazonaws.com/media.fisheries.noaa.gov/2020-</u>

<u>12/Draft%202020%20AtlanticGulfmarine%20mammal%20stock%20assessment%20reports.pdf?n</u> <u>ull</u>. Potential Biological Removal (PBR) is the product of the minimum population size, one-half the maximum net productivity rate, and a recovery factor (MMPA Sec. 3.16 U.S.C. 1362; Wade and Angliss 1997; Wade 1998). According to the Draft Stock Assessment Report, the minimum population size is 34, the maximum productivity rate is 0.04, the default value for cetaceans, and the recovery factor is 0.1 because the stock is listed as endangered. We therefore calculate PBR for the Gulf of Mexico Bryde's whale as 0.068 (in our view, PBR should not be rounded up to 0.1, as done in the Draft Stock Assessment Report; p. 289, Table 2).

⁸⁴ Id.

a) Recently published, new information on the range of the critically endangered Rice's whale species shows they may occur in the area of the Project and its shipping traffic.

MARAD and USCG have failed to consider recently published, highly relevant data on the critically endangered Rice's whale's range. As we have previously explained in the January 2021 DEIS Comments and the November 2021 Supplemental Comment Letter, ship strikes pose a significant risk to Rice's whales.

Studies show that the whales tend to spend significant amounts of time near the surface of the water, making them more vulnerable to death and injury from vessel strikes.⁸⁶ One tagged whale, for example, spent 70 percent of its time over an entire day within 15 meters of the surface; and it spent 88 percent of nighttime hours—when it would not be easily visible to vessels—near the surface.⁸⁷ Yet the SDEIS concludes the risk of ship strike is low, ignoring information about the species' frequent occurrence in shallower waters.

Further, MARAD's and USCG's conclusion that GulfLink will have "no effect" and therefore will not significantly impact the Rice's whale is based on the flawed, outdated assumption that the species is unlikely to be found in the action area.⁸⁸ New scientific information reveals these assumptions are incorrect. Specifically, a scientific paper issued earlier this year, based on long-term passive acoustic recordings of Rice's whales, demonstrates that "some whales persistently occur over a broader range in the [Gulf of Mexico] than previously understood."⁸⁹ The paper indicates the whales are regularly found in the Western Gulf of Mexico, with sightings in waters off the coast of Texas.⁹⁰

⁸⁶ Soldevilla et al., *Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: potential risk of vessel strikes and fisheries interactions*, 32 Endang. Species Res. 533–550 (2017) (Prior to 2021, the Rice's whale was thought to be a distinct subspecies of Bryde's whales, known as the Gulf of Mexico Bryde's whale) [hereinafter "Soldevilla et al. 2017"].

⁸⁷ Id.

⁸⁸ See, e.g., SDEIS at 3-253.

⁸⁹ Exhibit [], Soldevilla et al., *Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat*, 48 Endang. Species Res. 155–74 (2022) [hereinafter "Soldevilla et al. 2022"].

⁹⁰ *Id.* (noting that this new information "[i]n combination with a 2017 sighting of a genetically identified Rice's whale at the shelf break off Corpus Christi, Texas . . . provide evidence for the persistent occurrence of some Rice's whales over a broader distribution in the GOM than previously understood[.]").





The specific longitude, latitude and depths for the recordings are as follows:

Site	Site ID	Latitude (°N)	Longitude (°W)	Depth (m)	Start date (UTC, h)	End date (UTC, h)	Duration (d)	Data quantity (GB)
East Main Pass ^a	EP	29.2811	87.8583	233	7/19/2016 (18:00)	9/19/2016 (08:37)	62	19.8
Grand Isle South	GI	28.6292	90.0405	206	7/20/2016 (06:00)	8/13/2017 (12:10)	389.3	125.4
Eugene Isle South	EI	27.8845	91.4094	272	7/20/2016 (18:00)	5/15/2017 (22:27)	299.2	96.4
Flower Garden East	EF	27.7331	92.9513	261	7/21/2016 (06:00)	5/15/2017 (15:05)	298.4	96.1
Flower Garden West	WF	27.6541	93.3941	260	7/21/2016 (06:00)	5/15/2017 (12:24)	298.3	96.1
De Soto Canyon ^b	DC	29.0480	86.0975	270	8/25/2016 (00:00)	7/18/2017 (16:32)	304.4	97.9

^aThe East Main Pass instrument had a hardware failure after 2 mo

^bThe De Soto Canyon HARP data were decimated from a 200 kHz sample rate to a 2000 Hz sample rate since only lowfrequency data were needed for this analysis. Data quantity represents the decimated data for closest comparison with the low-frequency configured HARPs which had a 2000 Hz sample rate. This dataset had a minor disk write error that missed approximately 5 s per 37.5 min file. The duration represents the total sum duration of the recordings, not the total number of unique days with recordings present

The paper concludes that "[t]he presence of whales in the western [Gulf of Mexico] suggests they may have an increased risk of interaction with potentially harmful human activities."⁹¹

The SDEIS, relying on outdated information, concludes that the risk of ship strike is "low" because the whales are a "resident species in the northeastern [Gulf of Mexico], but unlikely to be found near DWP site."⁹² However, the new information on Western Gulf sightings illustrates that Rice's whale occurrences are much closer to the proposed action area than previously thought. These sightings, combined with information about the significant time the Rice's whale spends near the surface, demonstrate the elevated risk and likelihood of significant adverse effects to the species that could result from the GulfLink project. MARAD and USCG's findings and conclusions regarding the impact (or lack thereof) of *all* the various potential stressors from the project on this critically endangered whale are therefore misguided and incorrect.⁹³

Additionally, MARAD and USCG have dismissed the noise pollution impacts to the species from GulfLink based on the same flawed assumption that the whales are unlikely to be found in the Project area. Numerous scientific studies demonstrate that human-caused noise, including shipping noise, can cause a host of problems for the whales, including "the potential to degrade their habitat, reduce their listening space, mask biologically important sounds, and potentially cause injury."⁹⁴ MARAD and USCG must consider this new information as part of the NEPA analysis for this project when analyzing the project's potentially detrimental noise impacts to the species.⁹⁵

Notably, even before this information on the Rice's whale distribution came to light, NMFS had determined that existing oil and gas drilling activity on the Gulf of

⁹² See, e.g., SDEIS at 3-253.

⁹³ Similarly, the National Marine Fisheries Service (NMFS), in its ESA Section 7 consultation for the Project, cannot rely on flawed and outdated information when evaluating effects and making a jeopardy determination for the Rice's whale. Nor could the Service possibly concur with the "not likely to adversely affect" determination made by the action agencies. 16 U.S.C. § 1536(a)(2), (c)(1); 50 C.F.R. § 402.14(d), (g)(8).

⁹⁴ Exhibit [], Soldevilla et al. 2022, supra note X; see also Rosel et al., Status review of Bryde's whales (Balaenoptera edeni) in the Gulf of Mexico under the Endangered Species Act, NOAA Tech Memo NMFSSEFSC- 692 (2016).

⁹⁵ Sierra Club submitted an expert report on potential impacts to the Rice's whale and other marine species from vessel noise and strikes surrounding Delfin deepwater LNG, another deepwater port proposed in Gulf waters approximately forty miles off the Texas and Louisiana coasts, attached as **Exhibit X**. The report concludes that NMFS's consultation for the Delfin project failed to account for operational noise and noise from vessels, and lacked support for its conclusion that the project was not likely to adversely affect the species. The GulfLink consultation process must avoid making the same mistakes and analyze the effects of these known threats to the gravely imperiled Rice's whale.

Mexico Outer Continental Shelf was jeopardizing the species' continued existence.⁹⁶ This further demonstrates that GulfLink's deepwater port activities and VLCC transport serving the facility, located in the same area as existing Outer Continental Shelf drilling operations, will compound existing threats to the species and will likely exacerbate the whale's critical status.

At the very least, the scientific studies constitute new information that must now be considered in another supplemental EIS, to ensure sound agency decision making and meaningful public review of the impacts to the species. Furthermore, MARAD and USCG must consider this new information when considering impact minimization and mitigation of harms to the species.

b) Oil and gas infrastructure and associated increased ship traffic present detrimental risks to the critically endangered Rice's whale.

Whale deaths (detected and undetected) resulting from vessel collisions are highly likely to exceed the amount of loss that the species can sustain, adding to deaths caused by the Deepwater Horizon oil spill described below. A host of other anthropogenic threats causing loss to species include habitat curtailment and noise from oil and gas development, small, large and ongoing oil spills, marine debris, and potential interactions with fisheries, as well as cumulative and synergistic effects.⁹⁷

The species' small population size, the deleterious genetic effects associated with limited abundance (e.g., inbreeding depression, loss of potentially adaptive genetic diversity, and accumulation of deleterious mutations), and the species' highly restricted distribution, place these whales at high risk of extinction.⁹⁸ Oil spills, in particular, are an ongoing and common threat to the species' precarious state. The 2010 Deepwater Horizon disaster exposed the vulnerability of the species to catastrophic spill events.

⁹⁸ Rosel, *supra* note X.

⁹⁶ NMFS, *Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico*, FPR-2017-9234, 554 (Mar. 13, 2020), <u>https://repository.library.noaa.gov/view/noaa/23738</u> [hereinafter, "Gulf OCS Oil and Gas BiOp"]. This biological opinion was prepared prior to the re-classification of the species as the Rice's whale.

⁹⁷ P. Rosel et al., *A new species of baleen whale (Balaenoptera) from the Gulf of Mexico, with a review of its geographic distribution,* Marine Mammal Science (Jan. 2021),

https://doi.org/10.1111/mms.12776 (citing P. Rosel, "Status review of Bryde's whales (*Balaenoptera edeni*) in the Gulf of Mexico under the Endangered Species Act," NOAA Technical Memorandum, NMFS-SEFSC-692, U.S. Department of Commerce (2016); and M. Soldevilla et al., *Spatial distribution and dive behavior of Bryde's whales: Potential risk of vessel strikes and fisheries interactions*, 32 Endangered Species Research, 533–50 (2017)).

The Rice's whale—called the Gulf of Mexico Bryde's whale at the time of the Deepwater Horizon disaster and until recently—was the offshore cetacean most affected by the spill.⁹⁹ The spill oiled approximately 48 percent of the Rice's whale's known habitat and the killed an estimated 17 percent of the population.¹⁰⁰ In addition to the oil, harmful oil spill response measures and other oil and gas development activities present ongoing threats to the species.¹⁰¹

Further, NMFS's jeopardy determination for oil and gas development of the Gulf of Mexico Outer Continental Shelf found that the Rice's whale is threatened by oil spills, noise pollution, and vessel strikes (among other stressors) which can cause mortality, chronic stress, behavioral disruption, significant masking, and hearing loss, "all of which are expected to reduce the fitness of individuals."¹⁰² NMFS concluded that given the "precarious status [of the species], any effects that are expected to reduce the fitness of individuals or result in mortality are of great concern."¹⁰³ NMFS found that vessel strikes and noise, offshore infrastructure, and marine debris all would "likely adversely affect" the species.¹⁰⁴ The GulfLink project will increase the prevalence of many of the very stressors—vessel traffic, noise, and additional offshore infrastructure—that NMFS recently determined would jeopardize the continued existence of this beleaguered whale. MARAD and USCG must not overlook NMFS's analysis and conclusions regarding Rice's whale impacts from existing oil and gas development activities in this same area where GulfLink is proposed.

Deaths from vessel collisions have come to represent the most significant human threat to large whale populations globally,¹⁰⁵ rising along with a four-fold increase in marine vessel density from the early 1990s through 2012.¹⁰⁶ Recognizing this well-documented threat, a coalition of groups filed a petition with NMFS in May 2021 to

⁹⁹ Id.

¹⁰⁰ Deepwater Horizon Marine Mammal Injury Quantification Team, "Models and analyses for the quantification of injury to Gulf of Mexico cetaceans from the Deepwater Horizon oil spill," in DWH marine Mammal NRDA Technical Working Group Report (2015),

https://www.fws.gov/doiddata/dwh-ar-documents/876/DWH-AR0105866.pdf.

¹⁰¹ Gulf OCS Oil and Gas BiOp, *supra* note X.

¹⁰² *Id.* at 553.

¹⁰³ Id.

¹⁰⁴ *Id*. at 301.

¹⁰⁵ R. Schoeman, C. Patterson-Abrolat, & S. Plön, *A global review of vessel collisions with marine animals*, 7 Frontiers in Marine Science 292 (2020).

¹⁰⁶ J. Tournadre, *Anthropogenic pressure on the open ocean: The growth of ship traffic revealed by altimeter data analysis,* 41 Geophysical Research Letters, 7924–32 (2014).

establish mandatory, year-round 10-knot speed limits and other vessel-related regulations within the whale's core habitat, south of the Florida panhandle.¹⁰⁷

4. *The Project would threaten prime habitat for the threatened Eastern Black Rail.*

MARAD and USCG have failed to ensure that the Project will not jeopardize the eastern black rail. Since publication of the DEIS, the eastern black rail has been listed as threatened under the Endangered Species Act ("ESA"). Without intervention, the species is expected to be extirpated by 2068.¹⁰⁸ The eastern black rail is a small, elusive and vulnerable marsh bird that historically occurred in populations across the eastern half of the United States.¹⁰⁹ Over the past 25 years, its presence has declined by more than 90 percent because of threats from habitat loss, degradation and fragmentation.¹¹⁰ Now the species is thought to occur only irregularly along the U.S. eastern coastline, a fraction of the Gulf Coast, and in a very limited number of freshwater wetlands on the Great Plains.¹¹¹

The eastern black rail may be present year-round in the Project area, and may nest in saltgrass marshes from spring through summer.¹¹² The area has extensive salt meadow cordgrass and other prime wetland habitat for the eastern black rail.¹¹³ Current threats to the eastern black rail include habitat loss from alteration of wetland habitats, land management practices, grazing at high densities, climate-change related effects such as sea level rise and tidal flooding, and severe weather events (e.g., droughts and floods).¹¹⁴ The GulfLink project will exacerbate these threats to the species through habitat loss caused by the Project, both directly from construction and operation, and indirectly through climate change brought on by the significant GHG emissions

- ¹¹⁰ Id.
- ¹¹¹ Id.

¹¹³ Id.

¹⁰⁷ Center for Biological Diversity, *Petition Filed to Save Gulf of Mexico Whale From Ship Strikes* (May 11, 2021), https://biologicaldiversity.org/w/news/press-releases/petition-filed-to-save-gulf-of-mexico-whale-from-ship-strikes-2021-05-

^{11/#:~:}text=After%20two%20lawsuits%20over%20the,as%20required%20by%20the%20Act. ¹⁰⁸ U.S. Fish & Wildlife Service, Endangered and Threatened Wildlife and Plants; Threatened Species Status for Eastern Black Rail with a Section 4(d) Rule, Final Rule, 85 Fed. Reg. 63764, 63769 (Oct. 8, 2020).

¹⁰⁹ Id.

¹¹² SDEIS at 3-228.

¹¹⁴ SDEIS at 3-228.

associated with this Project. The GulfLink project will, at a minimum, have "direct, adverse, short-term, and negligible to minor" impacts to the eastern black rail."¹¹⁵

The SDEIS examines impacts to the species from some stressors, such as noise, concluding that "[t]emporary or permanent displacement and reduced fitness are likely impacts resulting from noise disturbance," but ultimately determines that potential impacts to the species would be "insignificant."¹¹⁶ This analysis is flawed and fails to account for the long-term impacts that may affect the species from construction and operation of the GulfLink project. As the 2016 Species Status Assessment for the eastern black rail explains, human activities have been shown to disturb breeding and nesting birds, leading to nest abandonment, increased predation, and decreased reproductive success.¹¹⁷ Researchers observe that singing activity of breeding male birds declines in sites that experience human intrusion, and disturbance may also result in behavioral changes in non-breeding birds.¹¹⁸ The increased availability of food wastes can support an increased number of predators and introduce new predator species.¹¹⁹ Environmental contaminants further pose a risk to birds and "have well documented direct effects on individual health, reproduction, and the viability of their young."¹²⁰ Indirect effects may include changes to forage abundance and diversity.¹²¹ What makes the agencies' failure to consider these impacts even more problematic is that these impacts have the potential to interfere with any future mitigation plans the applicant may be required to implement for this site.

Though MARAD and USCG included impacts to the eastern black rail in the DEIS, the U.S. Fish and Wildlife Service ("FWS") found that analysis deficient. Specifically, FWS did not agree that the agencies demonstrated that possible effects of the proposed project on the eastern black rail would be insignificant and/or discountable. And FWS did not concur with the determination by MARAD and USCG that the GulfLink project "may affect, but is not likely to adversely affect" the species.¹²² Based on information provided by the Project proponents, as well as reviews from

¹¹⁵ *Id.* at 3-250.

¹¹⁶ App'x F to SDEIS, Biological Assessment, at 57.

 ¹¹⁷ U.S. Fish & Wildlife Serv., Species Status Assessment Report for the Eastern Black Rail (Laterallus jamaicensis jamaicensis), 72 (Aug. 2019), <u>https://ecos.fws.gov/ServCat/DownloadFile/186791</u>.
 ¹¹⁸ Id.

¹¹⁹ Id. at 69.

¹²⁰ *Id.* at 66.

¹²¹ Id.

¹²² Letter from Yvette Fields (MARAD) and J.D. Butwid (USCG) to Charles Ardizzone (FWS), RE: Request to Initiate Formal Consultation (Sept. 15, 2022), https://www.regulations.gov/document/MARAD-2019-0093-2955.

species experts, eastern black rail habitat to be impacted by the project is of high quality and likely to support the species.¹²³ Due to this, FWS recommended MARAD and USCG initiate formal consultation pursuant to Section 7 of the ESA.¹²⁴

Formal consultation with FWS has not yet concluded, nor has the agency indicated if it concurs with MARAD and USCG's determination that the GulfLink project "may affect, but is not likely to adversely affect" the eastern black rail.¹²⁵ The agencies must prepare a supplemental EIS analyzing the impacts from the actions proposed after consultation. NEPA requires agencies to prepare a supplemental analysis if a major Federal action remains to occur, and "(i) the agency makes substantial changes to the proposed action that are relevant to environmental concerns; or (ii) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."¹²⁶ An agency may also prepare "supplements when [it] determines that the purposes of the Act will be furthered by doing so."¹²⁷An agency must prepare, circulate, and file a supplemental EIS "in the same fashion (exclusive of scoping) as a draft and final statement."¹²⁸ MARAD and USCG must prepare a supplemental EIS that analyzes the outcome of its consultation with FWS, discussing the impacts to eastern black rail habitat and mitigation plans proposed to prevent jeopardy to this threatened species, as this new information would be highly relevant to environmental concerns from this Project.

5. The Project could threaten oyster reefs in the area, which are among the few that remain open to commercial harvest in Texas this season.

The SDEIS arbitrarily downplays the impacts to oyster reefs from the GulfLink project, an error that is especially harmful given the precarious condition of Texas's oyster fishery right now. The agencies fail to address GulfLink's likelihood to cause significant degradation of oyster reefs. Oyster reefs are sensitive habitats within the subtidal and intertidal zones of coastal waters.¹²⁹ NMFS considers them to be essential

¹²³ App'x D to SDEIS, Letter from Charles Ardizzone (FWS) to Captain J.D. Butwid (USCG), RE: Recommendation to Initiate Formal Consultation (Jul. 13, 2022), at pdf 555-556.

¹²⁴ Letter from Yvette Fields (MARAD) and J.D. Butwid (USCG) to Charles Ardizzone (FWS), *supra* note X.

¹²⁵ *Id.* at 3-250.

¹²⁶ 40 C.F.R. § 1502.9(d).

¹²⁷ Id.

¹²⁸ Id.

¹²⁹ SDEIS at 3-94.

fish habitat, and state managers consider them coastal natural resources.¹³⁰ While the SDEIS acknowledges that oil spills would cause major impacts to these habitat areas, the SDEIS fails to estimate the acreage of oyster reef communities that could potentially be affected. Despite this lack of information, MARAD and USCG conclude that "an onshore or offshore oil spill could cause oil contamination of oysters or oyster reefs if present, and the impacts would be direct, adverse, moderate to major, and short-term to long-term, depending on the size of the spill.¹³¹ Without knowing the acreage impacted by oil spills of varying sizes, the extent of the impact to oyster reefs remains unknown. The NEPA analysis must include the amount of impacted oyster reefs and an assessment of the specific type of harm that could occur from spills, including implications to species that rely on this important habitat.

Texas oyster reefs have been in decline for many years and suffer due to increased fishing pressure, hurricanes and tropical storms, droughts, flood events, and a range of unsustainable human activities.¹³² On November 1, 2022, the Texas oyster season began with almost 70 percent of the harvest areas along the Texas coast closed due to environmental stress.¹³³ Among the few opened areas for harvest are the two closest to the GulfLink project: West Bay and Matagorda Bay.¹³⁴ MARAD and USCG must consider both the environmental impact that an oil spill might have on these areas and the risks posed by GulfLink to the oyster industry that will be heavily relying upon these areas for a successful harvest this season, and that is struggling to survive closures and fishery decline long term.

C. The SDEIS wrongly dismisses the harm from GulfLink's greenhouse gas emissions and uses an inadequate method to estimate these emissions.

1. *The SDEIS fails to consider any harm attributable to the Project's lifecycle greenhouse gas emissions.*

The SDEIS continues to assert that GulfLink would have little or no impact on global greenhouse gas emissions.¹³⁵ In doing so, the agencies fundamentally err. They

¹³⁰ Id. at 3-95.

¹³¹ *Id.* at 3-97.

¹³² *Id.* at 3-75.

¹³³ TPWD, "Texas Oyster Season Opens Nov. 1 With Multiple Bay Closures" (Oct. 27, 2022), <u>https://tpwd.texas.gov/newsmedia/releases/?req=20221027a</u>.

¹³⁴ Id.

¹³⁵ SDEIS at 3-475, 3-477, 5-44 to 5-46.

dismiss their own emissions estimates showing that GulfLink would be responsible for well over 100 million tons per year in greenhouse gas emissions from enabling the production and consumption of large quantities of fracked crude oil.¹³⁶ And instead of reckoning with that harm, the document pivots to make the "assumption" that GulfLink's greenhouse gas emissions would happen regardless of GulfLink, whether from oil produced in other regions or exported by other ports.¹³⁷ The SDEIS's assumption lacks any basis. For one, the SDEIS selectively ignores that U.S. onshore oil production will decline in the absence of GulfLink, both because of declining oil demand globally and because producers would face greater barriers to export their product to foreign buyers and would leave more oil in the ground as result.¹³⁸ Second, the SDEIS does not reconcile how the agencies could approve a Project that would enable such substantial greenhouse gas emissions with the U.S. government's national climate policy to reach net-zero greenhouse gas emissions by 2050. Both of these errors violate applicable NEPA case law, as we described in our prior comments, and they also fail to comport with EPA's most recent guidance to federal agencies on NEPA review of the greenhouse gas impacts from approving new fossil fuel projects.¹³⁹

First, the SDEIS's assumption is based on an increasingly unlikely baseline view of the world, one that minimizes the harm in the form of greenhouse gas emissions from the Project as compared to denying the license.¹⁴⁰ Specifically, the SDEIS relies on a

¹³⁷ See, e.g., SDEIS at 3-475, 3-477.

¹³⁶ SDEIS at 5-46 to 5-47; *see also id.* at 3-477 to 3-478 (calculating a *negative* social cost of carbon for the Project's operations, assuming it will substitute entirely for reverse-lightering). We reiterate that GulfLink's direct and indirect greenhouse gas emissions likely would be higher still than the SDEIS estimates. *See* Dec. of Petra Pless, Att. 2, p. 29, attached as Exhibit G to the January 2021 DEIS Comment. We discuss the analytical errors in the SDEIS's method for estimating lifecycle emissions estimates further below, in subsection 2. As we describe there, GulfLink could be responsible for approximately 191 million to 194 million tons per year of greenhouse gases.

¹³⁸ See Section I.A [No Action Alternative Section], above. See SDEIS at 1-7 (explaining that many analysts believe global oil demand is near its historic peak), *id.* at 1-8 (specifying that most fracked oil must be exported because of lack of domestic demand for it by U.S. refiners), *id.* at 1-8, 2-67 (acknowledging capacity constraints for current oil ports), *with* 5-44 to 5-46 (stating the agencies "rest[] on the assumption that excess production targeted for export by the applicant would be exported by different means if the DWP were not constructed.").
¹³⁹ Exhibit [], EPA Letter to BOEM at 4.

¹⁴⁰ See WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222, 1234–37 (10th Cir. 2017); 40 C.F.R. § 1502.22 (2019) ("If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall

high-oil production and demand scenario, in which future oil suppliers would rush to construct other analogous, expensive infrastructure projects to replace GulfLink and its direct and indirect greenhouse gas emissions.¹⁴¹ But that high-emissions, "business as usual" scenario is unlikely, because it conflicts with the imperative to reduce greenhouse gas emissions to maintain a livable climate. It also conflicts with the United States' own national climate policy and international obligations, like the Paris Climate Agreement, as we explained in Section I. Indeed, the U.S. Bureau of Land Management, in a recent EIS, admitted that the same sort of high oil production trajectory would be but a "worst-case scenario," and "maximum emissions baseline" for greenhouse gases.¹⁴² MARAD and USCG cannot rely solely on a worst-case scenario without accounting for other likely outcomes, nor can they simply assume the no-action and action alternative greenhouse-gas consequences are similar.¹⁴³

This also explains why MARAD and USCG err in relying on U.S. Energy Information Agency (EIA) long-term forecasting data.¹⁴⁴ The EIA's forecasts are only a worst-case scenario, because EIA explicitly does not account for even foreseeable changes in law and energy policy to reduce greenhouse gases, unlike the independent forecasts we have cited in our comments, in Section I and this Section.¹⁴⁵ This contrasts with the agencies' NEPA obligation to engage in reasonable forecasting where necessary.¹⁴⁶ At a minimum, the SDEIS must evaluate GulfLink against a baseline that accounts for the energy transition actively underway and stated global climate commitments, not solely one tethered to the economy of the past.

Contrary to the SDEIS's claim that all greenhouse gas emissions will occur regardless, the Institute for Policy Integrity surveyed the academic and professional literature on large-scale fossil-fuel leasing decisions and found that approximately half of the greenhouse gas emissions attributable to those projects would not occur *but for*

costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.").

¹⁴¹ See SDEIS at 2-64.

¹⁴² See Exhibit [], R. Rothschild & M. Sarinsky, *Toward Rationality in Oil and Gas Leasing*, Institute for Policy Integrity, 15 (Aug. 6, 2021), <u>https://policyintegrity.org/publications/detail/toward-rationality-in-oil-and-gas-leasing</u> (citing BLM, Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement (2019)) [hereinafter: "Institute for Policy Integrity Report"].

¹⁴³ See Section I.A, supra.

¹⁴⁴ See SDEIS at 1-7.

¹⁴⁵ *See* Exhibit [], Institute for Policy Integrity Report at 16 (discussing the explicit limitations in EIA long-term forecasts).

¹⁴⁶ See Ctr. for Biological Diversity v. Bernhardt, 982 F.3d 723, 735 (9th Cir. 2020).

the project's existence.¹⁴⁷ And we are further attaching to this comment letter the expert report of Peter Erickson.¹⁴⁸ Erickson analyzed the net greenhouse gas emissions attributable to the nearly identical Bluewater Texas Terminal, LLC ("Bluewater"), also seeking a license from MARAD to build a proposed deepwater oil export terminal off the coast of Corpus Christi, Texas, to serve VLCCs. Like GulfLink, Bluewater would primarily export oil from the Permian Basin. Bluewater would also have almost the same exact maximum capacity (loading 16 VLCCs per month), as GulfLink (15 VLCCs per month).¹⁴⁹ As Erickson explains, building such a VLCC terminal would reduce costs to U.S. producers to export, allowing "more Texas oil to be exported to the global market, and at lower cost, than otherwise would be the case."¹⁵⁰ This especially true because of the size of the terminal, as either GulfLink or Bluewater would alone add capacity equivalent to one-third of the total current volume of U.S. oil exports.¹⁵¹ Adding this large, lower-cost export capacity would allow drillers to tap higher-cost fields than they can afford to drill now, when export capacity is more constrained.¹⁵² And, "[t]he more oil is available (and at lower cost), the lower the global price of oil, and the more oil is consumed."153

As Erickson explains, this is not just theory, it is what we have observed in the U.S. crude-oil exports market since Congress lifted all restrictions on oil exports in late-2015. Beginning in 2015, Texas oil production and Gulf coast exports have risen in tandem, at a nearly one-to-one ratio.¹⁵⁴ Prior to the pandemic, production was

¹⁴⁷ Exhibit [], Institute for Policy Integrity Report at 14 ("While research finds some substitution from extraction on federal lands, there is little justification for rates of 95%. Instead, analyses tends to converge on substitution and leakage rates of around 50%.").

¹⁴⁸ Exhibit [], Dec. of Peter Erickson, Att. B, Expert Report, 1, 7 (Dec. 9, 2021) [hereinafter: "Erickson Report"]; *see* Institute for Policy Integrity Report at 14; *cf*. EIA, What Drives Crude Oil Prices?, <u>https://www.eia.gov/finance/markets/crudeoil/supply-nonopec.php</u> (explaining that "increases in non-OPEC supply contribute to lower oil prices, [while] disruptions of non-OPEC production reduce global oil supply and can lead to higher oil prices.").

¹⁴⁹ SDEIS at 5-15.

¹⁵⁰ Exhibit [], Att. B, Erickson Report at 3.

¹⁵¹ SDEIS at 5-15.

¹⁵² Exhibit [], Att. B, Erickson Report at 5–6.

¹⁵³ *Id.* at 2.

¹⁵⁴ *Id.* at 3. The federal Government Accountability Office likewise found that lifting the ban on crude exports expanded the market for U.S. exports of crude oil, which allowed U.S. producers to charge higher prices for their oil, which in turn incentivized greater investments in drilling, and resulted in greater production of crude oil onshore. Gov't Accountability Office, *Crude Oil Markets: Effects of the Crude Oil Export Ban*, 17 (Oct. 2020),

beginning to get closer to the limit of existing U.S. oil terminals' capacity to export.¹⁵⁵ These constraints have opened a "spread" between lower domestic oil prices and the higher international price of oil.¹⁵⁶ GulfLink, by greatly increasing export capacity, would help the oil industry break the logjam to get more oil to foreign markets to sell at the higher international price. Producers would collect greater profits from selling at a higher price, encouraging them to drill more and to expand into more costly shale-oil regions. And global consumers would see the price of oil decline as U.S. supply rises, encouraging them to consume more oil by driving cars or flying more.

Erickson finds such a VLCC terminal could be responsible for an additional 330,000 to 1 million barrels per day of new U.S. oil production that would not exist under the no-action alternative.¹⁵⁷ And this would translate into increased global consumption of 110,000 to 330,000 barrels per day.¹⁵⁸ The report quantifies the resulting greenhouse gas emissions released under various increased consumption scenarios, concluding that net emissions will increase by approximately 19 to 59 million metric tons of CO₂e per year. Finally, the report calculates the cost of damages associated with the resulting increased emissions based on the social cost of carbon. **Considering a range of discount rates, greenhouse gas damages would range from \$1.2 billion to \$5.2 billion annually**.

There is ample recent support for Erickson's reasoning in recent oil-market analysis. Indeed, the U.S. Department of the Treasury recently analyzed the gasoline price effects of President Biden's decision to release a total of 180 million barrels of oil from the U.S. Strategic Petroleum Reserve over 6 months, almost exactly the same rate at which GulfLink would export crude oil.¹⁵⁹ The Treasury Department found that the United States' releases alone led to a decline in the price of gasoline in the United States of between 13 and 33 cents over that period.¹⁶⁰ Moreover, oil industry analysts and executives openly describe how new export and pipeline projects drive increased export

¹⁵⁹ Deputy Ass't Secs. Benjamin Harris & Catherine Wolfram, U.S. Dep't of the Treasury, Press Release, *The Price Impact of the Strategic Petroleum Reserve Release* (July 26, 2022), https://home.treasury.gov/news/press-releases/jy0887.

<u>https://www.gao.gov/assets/720/710275.pdf</u>. In fact, U.S. production rose by one-third in the ensuing four years. *Id.*

¹⁵⁵ Exhibit [], Att. B, Erickson Report at 5.

¹⁵⁶ Exhibit [], Att. B, Erickson Report at 5.

¹⁵⁷ Exhibit [], Att. B, Erickson Report at 7.

¹⁵⁸ Id.

¹⁶⁰ Deputy Ass't Secs. Benjamin Harris & Catherine Wolfram, U.S. Dep't of the Treasury, Press Release, *The Price Impact of the Strategic Petroleum Reserve Release* (July 26, 2022), <u>https://home.treasury.gov/news/press-releases/jy0887</u>.

volumes. Speaking about the proposed, neighboring SPOT deepwater VLCC port, Executive Vice President Brent Secrest of Enterprise Product Partners told investors, "ultimately I think once [SPOT] goes forward that will change the flow patterns for crude oil exports."¹⁶¹ By contrast, the reason Corpus Christi's ports have outperformed Enterprise's onshore oil export terminals recently is, "They can load larger ships than us. They can do it at higher rates."¹⁶² Similarly, industry analyst RBN Energy found that it is pipeline and export terminal "infrastructure projects and refinery closures that, in combination, are enabling more crude oil from Western Canada, the Bakken, and the offshore Gulf of Mexico (among other places) to flow to LOOP [the Louisiana Offshore Oil Port] and the three export terminals in Beaumont and Nederland, which are owned by Energy Transfer, Phillips 66, and Enterprise."¹⁶³ To wrap up on this first point, it is simply incorrect for the SDEIS to assume that GulfLink will have no appreciable impact on oil consumption and greenhouse gas emissions.

Second and finally, the agencies seem to mistake their answer to whether GulkLink may replace emissions from other oil-producing nations as entirely dispositive of the NEPA obligation to address the Project's greenhouse gas emissions.¹⁶⁴ The agencies still must analyze the Project's greenhouse gas emissions in the context of national climate goals.¹⁶⁵ Moreover, they must address the stranded-asset risk; namely, the risk that the Project could operate but become increasingly uneconomical—a "stranded asset"—in an era of declining oil demand.¹⁶⁶ The United States has committed to reduce net greenhouse gas emissions by 50 to 52 percent by 2030 and has set a goal of

 ¹⁶¹ See Exhibit [], Tr. of Enterprise Products Partners L.P.'s Q2 Earnings Call (Aug. 3, 2022), <u>https://seekingalpha.com/article/4529238-enterprise-products-partners-l-p-s-epd-management-on-q2-2022-results-earnings-call-transcript</u>.
 ¹⁶² See id.

¹⁶³ Exhibit [], Housley Carr, RBN Energy, *Every Little Thing - Pipeline Projects, Refinery Closures Alter Flows to Crude Export Venues* (Jan. 18, 2022), <u>https://rbnenergy.com/every-little-thing-</u> <u>pipeline-projects-refinery-closures-alter-flows-to-crude-export-venues</u>; Exhibit [], David Braziel, RBN Energy, *If I Could Change the World - Growing Crude Oil Export Volumes Reshape Domestic and Global Markets* (Aug. 17, 2022), <u>https://rbnenergy.com/if-i-could-change-the-world-</u> <u>growing-crude-oil-e</u> (explaining that not only did lifting U.S. crude export restrictions in 2015 accelerate exports, more "efficient movement of crude oil to the refineries best optimized to run it, domestically and overseas, is still *a key consideration* in today's market, six and a half years after the export ban was lifted.").

¹⁶⁴ See SDEIS at 5-44 to 5-46.

¹⁶⁵ Sierra Club v. FERC, 867 F.3d 1357, 1374 (D.C. Cir. 2017).

¹⁶⁶ Exhibit [], EPA Letter to BOEM at 5 (calling on BOEM to assess stranded asset risk in EIS for offshore oil leasing plan).

net zero greenhouse gas emissions by no later than 2050.¹⁶⁷ But this Project would move in the opposite direction, as it would be responsible for considerable upstream greenhouse gas emissions in the United States itself, including the development of new oil production, and for exporting hundreds of millions of tons per year in greenhouse gas emissions to other nations. The Project could lock in those emissions for the decades the deepwater port license remains valid, as GulfLink's proponents attempt to recoup their investment.

And these emissions would arrive at a time when the world must cut emissions far more to avert the worst impacts of climate change. As we already explained in our November 2021 Supplemental Comment Letter, the IEA released a report in May 2021 confirming that there cannot be any further investment in developing oil fields going forward if the world hopes to keep global temperatures from increasing by more than 1.5-degrees Celsius from preindustrial levels.¹⁶⁸ This Project would spur exactly that investment, however. In a more recent report, the United Nations Framework Convention on Climate Change found that countries' climate pledges under the Paris Climate Agreement are far short of the greenhouse gas emissions reductions necessary to limit climate change even to 2-degrees Celsius, let alone to 1.5-degrees Celsius.¹⁶⁹ The report soberly warns there is "an urgent need for either a significant increase in the level of ambition of [emissions reductions pledges] between now and 2030 or a significant overachievement of the latest [pledges], or a combination of both."¹⁷⁰

Figure X. UNFCCC, Gap between Countries Climate Pledges ("NDCs") and Reductions Necessary to meet Paris Climate Agreement Goals.¹⁷¹

¹⁶⁷ See The White House, FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies (Apr. 22, 2021), <u>https://www.whitehouse.gov/briefing-room/statements-</u> releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reductiontarget-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energytechnologies/.

¹⁶⁸ See November 2021 Supplemental Comment Letter at 4 (citing and attaching International Energy Agency, *Net Zero by 2050: A roadmap for the global energy system* (2021), available at: <u>https://www.iea.org/reports/net-zero-by-2050</u>).

 ¹⁶⁹ Exhibit [], UNFCCC, COP 4th Session, Nationally Determined Contributions under the Paris Agmt., 29 (Oct. 26, 2022), <u>https://unfccc.int/sites/default/files/resource/cma2022_04.pdf</u>.
 ¹⁷⁰ Id.

¹⁷¹ Id.

Figure 8

Comparison of scenarios assessed in the Intergovernmental Panel on Climate Change Sixth Assessment Report with projected total and per capita global emissions according to nationally determined contributions



Instead of meeting the urgency of the moment and reducing emissions, approving GulfLink and other VLCC export projects would help thrust the planet further into a perilous climate future. GulfLink's new VLCC-loading capacity would spur more U.S. onshore oil production, and more foreign consumption of oil overall, than would be the case if GulfLink did not build. The agencies must account for the increased greenhouse gas emissions from this oil in deciding whether to approve or deny the Project.

2. The SDEIS's method of calculating lifecycle greenhouse gas emissions is inadequate.

The SDEIS's analysis of lifecycle greenhouse gas emissions from potential oil exports does not properly account for the origin of the oil for export, the emissionsintensive Permian Basin.¹⁷² Instead, the SDEIS relies on generalized emissions totals that likely understate GulfLink's emissions, reaching a total lifecycle figure of 115 million tons per year of CO₂e.¹⁷³ This is considerably less than the **estimate of 191 million to 194 million tons per year of greenhouse gas emissions** using Commenters' expert, Dr Petra Pless's, method that focuses on Permian-Basin-specific emissions factors.¹⁷⁴

¹⁷² SDEIS at 5-44 (stating "that the crude oil to be exported by the Proposed Action would originate from the Permian Basin").

¹⁷³ App'x AB to SDEIS; SDEIS at 5-46 to 5-47.

¹⁷⁴ See Dec. of Petra Pless, Att. 2, pp. 27–30, attached as Exhibit G to the January 2021 DEIS Comment Letter (explaining method of calculating emissions using Oil Climate Index (OCI)

For upstream emissions, the SDEIS uses the U.S. EPA's Greenhouse Gas Inventory's estimate of total U.S. upstream GHG emissions for the year 2019.¹⁷⁵ MARAD and USCG assume that each barrel of oil produced in the United States is responsible for an equal portion of the EPA's total.¹⁷⁶ In other words, because the oil that could be exported by GulfLink constitutes about 8 percent of total 2019 U.S. oil production, the agencies assume that upstream emissions from oil exported by GulfLink are likewise 8 percent of the total. While using this simplified assumption is preferable to the agencies failing to calculate up- or downstream emissions altogether, the agencies fail to account for the emissions differences due to the basin of origin of the crude oil. This matters because the Permian Basin is an especially greenhouse-gasintensive oil basin. The Permian's methane leakage rate may be 60 percent above the national average due to extensive venting and flaring by the Basin's producers.¹⁷⁷

The agencies should instead use easily available emissions estimates for Permian Basin oil. As Dr. Petra Pless explained in her expert report, the Oil Climate Index, among other sources, provides lifecycle greenhouse gas emissions factors for Permian Basin oils that the agencies could easily use to calculate GulfLink's emissions.¹⁷⁸

D. MARAD and USCG fail to take a hard look at GulfLink's air quality impacts.

In the SDEIS, GulfLink now plans to substantially lower its offshore air pollution emissions from the levels in the DEIS, responding to the extensive comments from local communities and Commenters about the Project's failure to comply with the Clean Air

emissions factors that are specific to crude oil type); Oil Climate Index, U.S. Texas Yates Oil, U.S. Spraberry Oil, <u>https://oci.carnegieendowment.org/#supply-chain</u> (providing emissions factors for these oils of 491 and 480 kg/CO₂e per barrel, respectively). We estimate lifecycle emissions here by multiplying 15 VLCCs per month * 2 million barrels of oil per VLCC * 12 months per year * OCI Emissions factor per kg of oil * .0011 (U.S. tons per kg). Note that these emissions estimates are lower than we quoted in the January 2021 DEIS Comment Letter at 49–50 (estimating that GulfLink could be responsible for a total of 255 to 318 million tons per year of greenhouse gas emissions). That is because the DEIS had indicated that GulfLink's maximum yearly throughput would be higher than the 15 VLCCs per month the SDEIS assumes. ¹⁷⁵ App'x AB to SDEIS; SDEIS at 5-46 to 5-47.

¹⁷⁶ Id.

¹⁷⁷ Exhibit [], Zhang et al., Quantifying Methane Emissions from the Largest Oil-Producing Basin in the United States from Space, 6 Sci. Adv. (2020).

¹⁷⁸ See Dec. of Petra Pless, attached as Exhibit G to the January 2021 DEIS Comment Letter.

Act and protect public health.¹⁷⁹ Despite the implementation of additional control technology that is required by the Clean Air Act, the SDEIS's air quality analysis continues to fail to demonstrate compliance with the Clean Air Act and NEPA, particularly for the Project's ozone impacts in an existing ozone nonattainment area.

1. The SDEIS air quality analysis is premature and erroneously relies on assumptions from GulfLink's air permit application.

MARAD and USCG's analysis of GulfLink's offshore air quality impacts relies on GulfLink's revised minor source permit application to EPA as the basis for its conclusion that "the proposed offshore operation would comply with relevant Federal and state air quality standards and impacts associated with the Proposed Action operation would be direct and indirect, adverse, long-term, and minor."¹⁸⁰ Yet because EPA has not yet issued even draft, let alone final, air permits for GulfLink's offshore loading terminal, no one but GulfLink itself has weighed in on whether the Project would comply with the Clean Air Act. And as explained below, the Project's air pollution emissions pose a cumulative threat to surrounding areas that the agencies must examine as part of their NEPA duty, including evaluating Project emissions not regulated by GulfLink's air permits, like the vessel traffic associated with the Project's operations.

Specifically, the SDEIS assumes without questioning that Gulflink's offshore emissions will be considered a "minor source that would not trigger the Federal Prevention of Significant Deterioration (PSD) program," based entirely on GulfLink's representations in its air permit application.¹⁸¹ To be considered a minor source, GulfLink must demonstrate to EPA that the Project would emit less than 250 tons per year for each criteria pollutant. Yet GulfLink's own estimate of its offshore volatile organic compound (VOC) emissions is *barely* below this threshold—at 248.64 tons per year.¹⁸² The designation as a minor source compared to a major PSD source is a critical

¹⁷⁹ See, e.g., January 2021 DEIS Comments; CFCACW Comments; see Texas GulfLink, *Presentation: Texas GulfLink Offshore VOC Control Overview* (Dec 14, 2021), at Slide 11 (implementation of offshore VOC controls "is responsive to comments received during the DEIS comment period recommending that such controls be implemented.").

¹⁸⁰ SDEIS at 3-472 to 3-473; *see* App'x W to SDEIS (containing GulfLink's, "Air Quality Analysis in Support of Permit Applications").

¹⁸¹ SDEIS at 3-472.

¹⁸² *Id.* at 3-470 to 3-472.

distinction under the Clean Air Act.¹⁸³ For example, based on the presumption that GulfLink will be a minor source under the Clean Air Act, GulfLink's minor source permit application does not include an ozone impacts analysis to demonstrate compliance with the ozone NAAQS.¹⁸⁴ MARAD and USCG fail to take a hard look at the assumptions in GulfLink's revised air permit application that form the basis for the SDEIS's air quality analysis and conclusions for offshore impacts.

> 2. The SDEIS fails to evaluate GulfLink's total ozone impacts and the harms the increase in ozone pollution will cause to the Houston-Galveston-Brazoria ozone nonattainment area.

The SDEIS's evaluation of the Project's ozone impacts does not comply with NEPA's requirement to take a hard look at GulfLink's air quality impacts. Ozone pollution poses serious health threats, including respiratory harm (e.g., worsened asthma, worsened COPD, and inflammation), early death, and cardiovascular harm (e.g., heart attacks, strokes, heart disease, and congestive heart failure), among other harmful impacts.¹⁸⁵ Ozone is a secondary pollutant, which means it is not directly emitted from a project like GulfLink but instead forms from photochemical reactions in the atmosphere with ozone precursor pollutants, VOCs and NOx.¹⁸⁶ Therefore, to evaluate the ozone impacts of a project, agencies must use available assessment tools or modeling to predict a project's contribution to ozone levels based on the project's total estimated VOC and NOx pollution.¹⁸⁷ The SDEIS fails to do this.

First, the SDEIS fails to acknowledge that the Houston-Brazoria-Galveston region where GulfLink will be built was recently downgraded to "severe" nonattainment for ozone based on its failure to comply with the 2008 national ambient air quality

¹⁸³ See App'x W to SDEIS, Section 4.0 – PSD Applicability Analysis, at 22 ("Note that because PSD does not apply, an additional impacts analysis per §52.21(o) and a federal Class I area impacts analysis per §52.21(p) are not required.").

¹⁸⁴ *Id.* ("[B]ecause VOC and NOx are not subject to PSD for this project, the referenced ozone impacts analysis is not required.").

¹⁸⁵ See U.S. EPA, "Integrated Science Assessment for Ozone and Related Photochemical Oxidants," Final Report (Feb. 2013),

https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492.

¹⁸⁶ See EPA, Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier
1 Demonstration Tool for Ozone and PM2.5 Under the PSD Permitting Program (April 30, 2019),
available at https://www.epa.gov/sites/default/files/2019-05/documents/merps2019.pdf.
¹⁸⁷ See id.

standards ("NAAQS").¹⁸⁸ The SDEIS does not acknowledge this reclassification. And the SDEIS thus fails to evaluate the ozone impacts of the Project in the context of this reclassification and the additional actions that the region will need to undertake to reduce ozone pollution.¹⁸⁹ The general conformity analysis for GulfLink must also be revised to comply with this new reclassification.¹⁹⁰

Second, the SDEIS fails to evaluate the ozone pollution that GulfLink would add to the existing, unhealthy levels of ozone in the region. The agencies must quantify and model the cumulative ozone impact from the Project's offshore loading process together with the Project's other components and phases combined (i.e., construction and operations; onshore, offshore, and mobile source emissions, including VLCC traffic). Instead of doing this, the SDEIS only includes a table that lists total offshore operational emissions from both stationary and mobile sources for the ozone-precursors VOCs and NOx. But the SDEIS does not estimate the resulting ozone levels from these ozone precursors.¹⁹¹ As discussed above, GulfLink's air permit application does not quantify or model GulfLink's ozone levels from its stationary source offshore emissions.

Finally, the SDEIS's ozone analysis for GulfLink's offshore emissions erroneously relies on a background ozone level of 66 ppb, which is less than the ozone NAAQS of 70 ppb,¹⁹² despite the SDEIS's acknowledgment that the nearest onshore location to the proposed DWP is designated as nonattainment for ozone and "the NAAQS attainment status of the nearest adjacent onshore location should be considered for the offshore locations." ¹⁹³ The value the agencies chose comes from just one ozone monitor out of at least twenty for the Houston-Galveston-Brazoria region.¹⁹⁴ For example, the Houston Bayland Park monitor, which is highlighted by Texas' air quality agency as the one "that may ultimately be used to determine the area's compliance with the ozone standard," has a level of 73 ppb, above the ozone NAAQS.¹⁹⁵ The agencies decision to

¹⁸⁸ Determinations of Attainment by the Attainment Date, Extensions of the Attainment Date, and Reclassification of Areas Classified as Serious for the 2008 Ozone National Ambient Air Quality Standards, 87 Fed. Reg. 60,926 (Oct. 7, 2022).

¹⁸⁹ See SDEIS at 3-459 to 3-460.

¹⁹⁰ See 40 C.F.R. § 93.153(b)(1).

¹⁹¹ *Id.* at 3-470 to 3-471 (estimating total combined offshore operational emissions of 283.04 tpy VOCs and 1027.96 tpy NOx).

¹⁹² Id. at 3-460.

¹⁹³ *Id.* at 3-467.

¹⁹⁴ See TCEQ, Compliance with Eight-Hour Ozone Standard, <u>https://www.tceq.texas.gov/cgi-bin/compliance/monops/8hr_attainment.pl</u> (last visited August 31, 2022) (showing 20 monitors in the Houston-Galveston-Brazoria region).

¹⁹⁵ Id.

use a lower background ozone level, from just one monitor in a broader region that has been in nonattainment for ozone for decades, is arbitrary and provides a faulty starting point for the SDEIS' entire analysis of harms from the Project's ozone impacts.

Without estimating and disclosing GulfLink's ozone impacts and the harms those additional ozone levels could cause in a recently downgraded nonattainment area, MARAD and USCG fail to take a hard look at the air pollution and public health harms of the Project. Moreover, MARAD and USCG's deficient analysis fails to support the agencies' conclusion that the air pollution impacts of the Project would be "minor" and would comply with the NAAQS.¹⁹⁶

3. The SDEIS fails to evaluate the cumulative impacts of GulfLink's air pollution combined with other proposed projects.

The SDEIS also fails to evaluate the impacts of GulfLink's air pollution increases in combination with air pollution from other proposed or permitted projects in the area, such as SPOT. The SDEIS includes a table listing emissions from other deepwater port projects proposed along the Texas Coast.¹⁹⁷ However, merely listing these emissions does not satisfy MARAD and the USCG's obligation to analyze the Project's impacts and does not comply with NEPA's requirement of informing agency decisionmakers and the public about the Project's cumulative air quality impacts.¹⁹⁸

First, this table does not provide any analysis or context for the public to understand the magnitude of these emissions or what the combination of these emissions could mean for worsening air quality in the region. The table also does not evaluate the resulting health, environmental, or economic impacts of these combined levels of pollution. For example, it does not include modeling or analysis of GulfLink's air pollution for ozone and nearly every other pollutant combined with other proposed projects in the area, like the proposed SPOT offshore export terminal which would be a major source of hazardous air pollutants and ozone-causing pollution, including

¹⁹⁶ SDEIS at 3-473.

¹⁹⁷ Id. at 5-47.

¹⁹⁸ See Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 994 (9th Cir. 2004) (holding that a cumulative impact analysis under NEPA "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects"); *Montana Envtl. Info. Ctr. v. Haaland*, 2022 WL 4592071, at *5–6 (D. Mont. Sept. 30, 2022) (finding a cumulative impacts analysis that merely listed activities that would contribute to adverse impacts and conclusory statements "devoid of meaningful analysis") (internal quotations omitted).

whether together these two projects could cause exceedances of federal air quality standards or disproportionately harm environmental justice communities.

Second, this table does not include a cumulative analysis of ozone impacts, which is particularly important given that, as discussed above, this region is in severe nonattainment for federal ozone air quality standards. The table only includes the amounts of ozone precursor emissions (NOx and VOCs) but does not include any quantification of the levels of ozone pollution these precursor emissions would add to the area, nor the resulting health, environmental, or economic impacts of the increase in ozone levels.¹⁹⁹

Without understanding the combined effects of air pollution, and ozone in particular, the SDEIS has failed to take the requisite hard look to properly inform the public of the adverse environmental impacts from this Project.

III. <u>Conclusion</u>

For the foregoing reasons, we request MARAD and USCG remedy the errors contained in the SDEIS and ensure adequate information and analyses are included prior to issuing a record of decision. Key information and critical analysis are missing from the agencies' SDEIS, and the agencies do not analyze the full extent of the Project's impacts.

Thank you for your consideration.

Sincerely,

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¹⁹⁹ SDEIS at 5-47.

[Additional signatories]