



Office of
Energy
Projects

September 2022

FERC/FEIS-0316

FINAL ENVIRONMENTAL IMPACT STATEMENT for the COMMONWEALTH LNG PROJECT

Volume II

Commonwealth LNG, LLC

Docket Nos. CP19-502-000
CP19-502-001

Federal Energy Regulatory Commission
Office of Energy Projects
Washington, DC 20426

Cooperating Agencies:



U.S. Army
Corps of Engineers



U.S. Coast Guard



U.S. Department
of Energy



U.S. Department
of Transportation



U.S. Environmental
Protection Agency



U.S. Fish and
Wildlife Service



National Oceanic
Atmospheric Administration -
National Marine Fisheries Service

APPENDIX M

DRAFT ENVIRONMENTAL IMPACT

STATEMENT COMMENTS AND RESPONSES

Part I

FEDERAL AGENCIES
FA1 – U.S. Department of the Interior

Document Accession #: 20220512-5045 Filed Date: 05/12/2022



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904

IN REPLY REFER TO:

May 12, 2022

4112.1
ER 22/0125

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
Mail Code: DLC, HL-11.2
888 First St., NE
Washington, DC 20426

RE: Draft Environmental Impact Statement for the Commonwealth LNG Project, FERC Nos.
CP19-502-000, CP19-502-001, Cameron Parish, Louisiana

Dear Secretary Bose:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement for the Commonwealth LNG Project. The Department does not have comments at this time.

Thank you for the opportunity to comment.

Sincerely,

JOHN
NELSON

John Nelson
Regional Environmental Officer

Digitally signed by
JOHN NELSON
Date: 2022.05.12
09:22:11 -04'00'

Electronic distribution: <https://ferconline.ferc.gov/>

FA1-1

FA1-1

Comment noted.

FA2 – U.S. Environmental Protection Agency

Filed Date: 05/23/2022



REGION 6

May 23, 2022

FA2-1

Commonwealth is no longer planning to dispose of dredge spoils offshore of Holly Beach as originally described. Commonwealth's newly proposed dredge spoils disposal site is inland and would not be regulated under the MPRSA.

FEDERAL AGENCIES

FA2 – U.S. Environmental Protection Agency

Document Accession #: 20220523-5141 Filed Date: 05/23/2022

period for the Administrative Draft Environmental Impact Statement (EIS). EPA has not received such documentation, and again requests this information to determine if the actions proposed are regulated under the Marine Protection, Research, and Sanctuaries Act (MPRSA) (also known as the Ocean Dumping Act).

Climate Change

EPA's detailed comments include recommendations for consistent disclosure and consideration of upstream and downstream emissions, and analyzing greenhouse gas (GHG) emissions in the context of national GHG reduction policies and state reduction targets. Our comments also disclose the climate impacts by using the estimated social cost of GHGs, improving the application of mitigation measures, incorporating climate adaptation, and considering climate-related environmental justice.

Greenhouse Gas Emissions and Climate-Related Impacts

- EPA recommends that FERC avoid solely expressing project-level emissions as a fractional percentage of national or state emissions or reduction targets. This approach trivializes substantial project-scale GHG emissions and is also misleading given the nature of the climate policy challenge to reduce GHG emissions from a multitude of sources, each making relatively small individual contributions to overall GHG emissions. For example, the EIS indicates that direct emissions of the Terminal would represent 2.2 percent and 3.3 percent of Louisiana's 2025 and 2030 reductions targets to reduce net GHG emissions 26 to 28 percent by 2025 and 40 to 50 percent by 2030 (compared to 2005 levels) and net-zero GHG emissions by 2050. However, there is no discussion whether this increase conflicts with the State reduction targets. While 2.3-3.3 percent seems like a small number, it appears substantial for a single project. EPA recommends that the EIS include a discussion of whether these increases are consistent with the State plan and in conjunction with the cumulative impacts of the numerous other LNG and pipeline development projects in the State. EPA recommends that NEPA documents discuss the conflict between GHG emissions and national, state, and local GHG reduction policies and goals, and ways that these contributions can potentially be mitigated.
- The draft EIS does not quantify the upstream and downstream emissions associated with natural gas production and use. Both upstream and downstream GHG emissions are clearly reasonably foreseeable indirect impacts for NGA section 3 projects. Whether downstream GHG emissions occur within the United States or outside of the United States is not relevant in assessing their climate impacts, given that GHGs have impacts that are global in scale. Whether a project serves domestic consumption or export would not meaningfully affect the location of upstream GHG emissions, which in most cases would be from domestic sources. Given the reasonably close causal relationship between upstream and downstream emissions and FERC's authorization role under the NGA for section 3 projects, FERC should usefully disclose and consider, in its NEPA and NGA analyses, the often large-scale upstream and downstream emission impacts of NGA section 3 projects. Additionally, because the expected life of the Terminal and pipeline facilities is decades long, this project would effectively lock-in the production of the gas needed to support operation at the facility's certificated capacity. In other words, the purpose of the proposed project is to liquify natural gas for transport and consumption, and that natural gas must be produced and will presumably be used.

Page 2 of 3

FA2-1

FA2-2

FA2-3

FA2-2

The Commission has stated in recent orders that the comparisons provide additional context in considering a project’s potential impact on climate change. See [Order Issuing Certificates and Approving Abandonment](#), 178 FERC ¶ 61,199 (2022) at P89; and [Order Issuing Certificate](#), 178 FERC ¶ 61,198 (2022) at P48.

FA2-3

See revised section 4.13.2.11.

Document Accession #: 20220523-5141		Filed Date: 05/23/2022	
<p>Adaptation and Resiliency of Project to Climate Impacts</p> <ul style="list-style-type: none">EPA recommends the EIS consider and disclose climate resilience and adaption planning in the project design, including measures to be taken to ensure resilience to protect the infrastructure investment from the effects of climate change (on the project). The long-lived nature of LNG infrastructure and coastal location, makes consideration of the ongoing and projected impacts of climate change even more important. Considering potential climate change impacts helps ensure that investments made today continue to function and provide benefits, even as the climate changes. EPA recommends that the EIS specifically discuss how climate resiliency has been considered in the design of the proposed action and alternatives, and any related measures to protect against impacts from increased flooding, etc., should be discussed and included, as appropriate, in the conclusion and recommendations section, as well as any impacts these measures could have on surrounding communities. Consideration of these impacts might help avoid infrastructure investments in vulnerable locations, and unintended impacts on local communities.		FA2-4	The potential impacts of natural hazards on the Project are discussed in sections 4.1.5 and 4.12.1.
<p>Social Cost of Greenhouse Gases – SC-GHG</p> <ul style="list-style-type: none">To more fully assess climate impacts and help weigh their significance in cost-benefit balancing for a proposed project, EPA strongly recommends FERC disclose climate damages and benefits through the use of the Social Cost of GHG (SC-GHG). Such estimates reflect the best available science and methodologies to monetize the value of net changes in direct and indirect GHG emissions resulting from a proposed action to society. The estimates provide the decisionmakers and public meaningful information on the impacts of the project’s GHG emissions for NEPA purposes including disclosing GHG impacts and benefits of mitigation and for comparison across alternatives. The draft EIS reports direct annual operational CO_{2e} emissions of about 3,382,954 metric tons CO_{2e}/yr. Based on these estimates and the current interim SC-CO₂, the present estimated monetized value of climate impacts associated with the operational emissions (over 2025 to 2050) would be approximately 4.3 billion (2020 dollars).¹ While FERC did not provide estimates for the reasonably foreseeable indirect emissions from upstream natural gas production and downstream natural gas production, EPA notes that those emissions may be significant, and should be estimated and their impacts monetized using the SC-GHG.		FA2-5	See revised section 4.13.2.11, where the Project’s social cost of greenhouse gases is calculated .
<p>GHG and Air Quality Mitigation</p> <ul style="list-style-type: none">The draft EIS only mentions carbon sequestration as a possible mitigation for the project’s GHG emissions. The EIS indicates that “Commonwealth states that carbon capture technologies are not technically feasible for the project, primarily due to the lack of existing sequestration infrastructure.” However, the draft EIS indicates that “other		FA2-6	See revised section 4.13.2.11.
<p>¹ The interim SC-CO₂ estimates are presented and described in detail in the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) February 2021 Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990, available at: https://www.whitehouse.gov/wpcontent/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf . For the calculations presented in this letter, the SC-CO₂ is applied to all CO_{2e} emissions changes because the draft EIS does not provide the emissions for each GHG separately. It would be more appropriate to apply the gas-specific social cost estimate to emissions changes of each GHG (i.e., use SC-CO₂ to monetize CO₂ emissions changes, and use SC-CH₄ to monetize CH₄ emissions changes).</p>			
Page 3 of 4			

FEDERAL AGENCIES
FA2 – U.S. Environmental Protection Agency

Document Accession #: 20220523-5141		Filed Date: 05/23/2022	
LNG projects in the general Project vicinity, such as Rio Grande LNG, LLC (Docket No. CP22-17) and Venture Global’s CP2 LNG project (Docket No. CP22-21), which would be constructed about 1.5 miles from the proposed Commonwealth LNG terminal, have found that carbon capture and sequestration would be feasible for their projects and have proposed to implement it as part of their projects” (p.4-364). Hence, the statement regarding lack of infrastructure does not seem supported. EPA recommends that the EIS clarify this inconsistency, and consider adoption of all reasonably feasibly mitigation, as required under NEPA.	FA2-6		
	FA2-7	FA2-7	Commonwealth states it will perform leak detection within the LNG Facility and along the Pipeline, as required by 49 CFR 192.706, and would include annual leakage surveys, monthly volumetric material balances, and 24/7 pressure monitoring. Commonwealth will further define the leak-detection technology(ies) during final design.
	FA2-8	FA2-8	Section 4.11.1.5 has been revised to include additional steps Commonwealth would take to minimize fugitive emissions of methane and other VOCs. Commonwealth is currently reviewing whether to participate in the Natural Gas STAR and Methane Challenge programs, which exist for operating facilities.
More information on these and other potential mitigation measures may be found at https://www.epa.gov/natural-gas-star-program/recommended-technologies-reduce-methane-emissions			
Page 4 of 5			

Document Accession #: 20220523-5141 Filed Date: 05/23/2022	
<p>Environmental Justice <i>Disproportionate Impact Factors</i> The EIS cites the <i>Promising Practices for EJ Methodologies in NEPA Reviews</i> report (see Section 4.9.12.3 at p.4-171, FN65) for its decision to limit the identification of potential disproportionately high and adverse impacts to a single factor for consideration (i.e., whether the impact is predominantly borne by the community with EJ concerns). While the selected factor can play an important role in informing whether a disproportionately high and adverse impact may exist, and agencies have wide discretion regarding their environmental justice analysis methods, the rationale for limiting the analysis to this single factor is unclear. For instance, the Promising Practices report lists six factors, any of which, if met, could indicate a potential disproportionately high and adverse impact.</p> <p>Visual Resource EJ Impacts CEQ’s <i>Environmental Justice Guidance Under the National Environmental Policy Act</i> (1997) lists several factors for agencies to consider (three focused on human health effects and three on environmental effects) regarding disproportionately high and adverse impacts. CEQ’s environmental effects-related factors focus on whether the impacts are: 1) significant, per NEPA; 2) appreciably exceed those to the general population; or 3) occur in a community affected by cumulative or multiple exposures. Based on information provided in the EIS, the proposed project appears to meet all three of these factors for visual resources impacts to the town of Cameron and other residents of Census Tract 9702.01, Block Group 3. Therefore, EPA suggests this likely represents a disproportionately high and adverse impact.</p> <p>Supplemental Analysis Supporting Visual Resource EJ Impacts The first CEQ factor listed for considering disproportionately high and adverse impacts is whether there is a significant (per NEPA) impact to a community with EJ concerns. The EIS identifies the town of Cameron as a community with EJ concerns in the project area (p.4-179). The EIS states the “proposed Terminal would be visible to...residents of Holly Beach and Cameron” (p.4-154). The EIS concludes “the permanent changes in the viewshed, would have a permanent and significant adverse effect on those environmental justice communities near the Project” (p.4-180). This information appears to potentially meet the first factor listed in CEQ’s EJ guidance.</p> <p>The second CEQ factor speaks to whether the impact to the community with EJ concerns appreciably exceeds that of the general population. The EIS states flares, lighting, and storage tanks from the project may be visible for several miles (p. 4-346) and “in general, the magnitude and intensity of the aforementioned impacts would be greater for individuals and residences closest to the Project’s facilities and would diminish with distance” (p.4-178). Cameron appears to be the town in closest proximity to the proposed project, with the nearest residence in this environmental justice Census Block Group approximately 3,300 feet away (p. ES-8). This appears to indicate the visual impacts from the project to Cameron residents may appreciably exceed those of the general population, particularly compared with block groups at the outer boundaries of the project’s 23-mile EJ analysis buffer area.</p> <p>The third CEQ factor is whether the community with EJ concerns experiences cumulative or multiple impacts. The EIS states the “construction of Commonwealth, Calcasieu Pass, and CP2 would result in several industrial sites in a concentrated area” and motorists travelling “the 2.5-miles between the Cameron Ferry East Landing through the town of Cameron would have direct</p>	
	FA2-9
	FA2-10

FA2-9

Consistent with Promising Practices and Executive Order 12898, we reviewed the Project to determine if its resulting impacts would be disproportionately high and adverse on minority and low-income populations and also whether impacts would be significant. Promising Practices provides a number of options for determining whether an action will cause a disproportionately high and adverse impact. For this project, staff considers impacts that are predominantly borne by an environmental justice community including the project location and the project’s human health and environmental impacts on EJ communities including direct, indirect, and cumulative impacts when determining if impacts on an environmental justice community are disproportionately high and adverse. See Section 4.9.16.3. For this project, staff has determined that impacts would be disproportionately high and adverse

FA2-10

See response to comment FA2-9.

Document Accession #: 20220523-5141 Filed Date: 05/23/2022

views of all three facilities and associated structures” (p.4-346). “The terminals and all associated structures and buildings would be highly visible from...the town of Cameron” (p.4-352). The EIS concludes the project would result in significant cumulative visual impacts (p. 4-346). This information appears to indicate the residents of Cameron may be affected by considerable cumulative visual impacts, which would meet the third CEQ disproportionate impact factor.

FA2-10

We appreciate the opportunity to review the draft EIS and are available to discuss our comments. Please send our office an electronic copy of the Final EIS when it is electronically filed with the Office of Federal Activities using the following link: <https://www.epa.gov/nepa/e-nepa-guide-registration-and-preparing-eis-electronic-submission>. If you have any questions, please contact Gabe Gruta, project review lead at 214-665-2174 or gruta.gabriel@epa.gov.


Sincerely,
**WILLIAM
HAYDEN**
for Robert Houston
Staff Director
Office of Communities, Tribes and
Environmental assessment

Digitally signed by WILLIAM HAYDEN
DN: c=US, o=U.S. Government,
ou=Environmental Protection Agency,
cn=WILLIAM HAYDEN,
c=US, email=180300010011+48001003
@epa.gov
Date: 2022.05.23 14:05:10 -0500

FEDERAL AGENCIES
FA3 – National Oceanic and Atmospheric Administration
Fisheries Service, Southeast Region

Document Accession #: 20220523-5181

Filed Date: 05/23/2022



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
<https://www.fisheries.noaa.gov/region/southeast>

May 23, 2022


F/SER46/JM:rs
225-380-0089

Federal Energy Regulatory Commission
Ms. Kimberly D. Bose, Secretary
OEP/DG2E/Gas 4
888 First Street NE, Room 1A
Washington, DC 20426

Dear Ms. Bose:

NOAA’s National Marine Fisheries Service (NMFS) Southeast Region Habitat Conservation Division received your letter dated March 31, 2022, requesting initiation of an essential fish habitat (EFH) consultation and has reviewed the Federal Energy Regulatory Commission’s (FERC) Draft Environmental Impact Statement (DEIS) for the Commonwealth LNG, LLC (CLNG) project dated March 31, 2022. The applicant, CLNG, filed their application with FERC on August 20, 2019, under docket numbers CP19-502-000 and CP19-502-001. The applicant proposes to site, construct, and operate a natural gas liquefaction and export facility, including a 3.0-mile-long, 42-inch diameter natural gas pipeline integrated with two interconnection facilities, one metering station, one pig launcher facility, a 47-acre marine berth and dock, and a water control structure located in Cameron Parish, Louisiana. The proposed project would require dredging and in-water pile driving to construct the marine berth and biennial maintenance dredging to maintain the depth of the marine berth. Your letter also stated the proposed construction of the LNG facility would permanently fill 11.9 acres of tidally influenced emergent wetlands, 1.6 acres of tidal slough habitat, and 1.2 acres of open water; and construction of the pipeline would temporarily impact 43.6 acres of tidally influenced emergent wetlands along the 3.0-mile right-of-way (ROW), including permanent fill of 0.3 acre of tidally influenced emergent wetlands to construct the aboveground facilities.

On September 17, 2019, NMFS agreed to serve as a Cooperating Agency on this project as it was originally being reviewed under One Federal Decision (OFD) and we have special expertise and jurisdiction by law in regards to the Endangered Species Act, Marine Mammal Protection Act, and Magnuson Stevens Fishery Conservation and Management Act (MSA). The following comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and 600.920 of the MSA (Magnuson-Stevens Act; P.L. 104-297). It should be noted required consultations with NMFS pursuant to the EFH provisions of the MSA and the Endangered Species Act were previously “paused” on the OFD Permitting Dashboard from March 16, 2020, to September 24, 2021, due to the delay in the availability of DEIS, for which federal agencies’ consultations are dependent. During the “pause”, NMFS also reviewed and commented on the Joint Public Notice MVN-2018-00250-WLL dated May 11, 2020, from the United States Army Corps of Engineers (USACE) for the CLNG project. Furthermore, NMFS received via an email from CLNG dated February 14, 2022, a courtesy copy of the



FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
applicant’s revised February 2022 EFH assessment to FERC (herein referred to as the “applicant’s assessment”) and the February 2022 Dredge Materials Management Plan (DMMP) included as Appendix A of the applicant’s assessment.			
Through publication of the DEIS on March 31, 2022, including the EFH Section 4.6.3 (herein referred to as the “DEIS-EFH”), FERC requested initiation of EFH consultation with NMFS and requested NMFS consider the DEIS-EFH as the required EFH Assessment. Based on the limited and sometimes conflicting information provided in the applicant’s assessment, DMMP, and the DEIS-EFH, the NMFS has determined the FERC’s DEIS-EFH assessment is incomplete. Therefore, NMFS cannot concur with FERC’s findings that the project would not adversely impact EFH. As such, this NMFS response includes comments on the applicant’s assessment, the DMMP, and the DEIS-EFH, which should be considered as technical assistance to inform the OFD Permitting Dashboard Milestone No.2 – “NOAA determines the EFH assessment is complete and initiates consultation”. Once a complete EFH assessment is available, FERC should provide it to NMFS for review according to the agreed upon Permitting Dashboard milestone dates.	FA3-1	FA3-1	Section 4.6.3 and appendix D provides a revised EFH assessment reflecting Commonwealth's most recently proposed Project details.
Importantly, it should be noted the CLNG project evaluated in the DEIS is not the significantly revised project currently being proposed by the applicant. The current project proposal includes construction and/or operations of the: (1) facility; (2) pipeline route including ROW, temporary workspace (TWS), additional temporary workspace, temporary access roads (TAR), and aboveground facilities (AGF) (herein referred to as the “pipeline route”); (3) marine berth and dock areas; (4) Nearshore Disposal Area (NDA); and (5) a water control structure. The DEIS-EFH assessment does not include the current DMMP impacts, nor the appropriate analyses of the impacts of the NDA on nearshore EFH in the Gulf of Mexico or the potential impacts from the proposed water control structure. Based upon the currently proposed plans provided by the applicant and not documented in the DEIS, NMFS has determined the proposed project would adversely impact EFH and associated marine fishery resources and these impacts need to be documented both in the required EFH assessment and in the final EIS.	FA3-2	FA3-2	See response to FA3-1.
EFH Species Impacted			
The proposed project is in an area designated as EFH for various life stages of federally managed species, including post larval and juvenile stages of white shrimp, brown shrimp, red drum, red snapper, gray snapper, lane snapper, gray triggerfish, cobia, greater amberjack, king mackerel, Spanish mackerel, scalloped hammerhead shark, blacktip shark, and Atlantic sharpnose shark. The primary categories of EFH affected by project implementation are estuarine emergent marsh (EEM) consisting of brackish marsh (BM) and intermediate marsh (IM), estuarine oyster reef (EOR), estuarine mud/soft water bottoms (EWB), estuarine water column (EWC), marine non-vegetated bottoms (MWB), and marine water column (MWC). The impacted MWB and MWC habitats consist of subtidal unconsolidated, mixed sediments which serve as important nursery and feeding areas for many fish and invertebrates, including demersal fish that prey upon aquatic species living on and in the sediments. Detailed information on federally managed fisheries and their EFH is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council and in the 2017 Amendment 10 to the Consolidated Atlantic Highly Migratory Species Fishery Management	FA3-3	FA3-3	See response to FA3-1.
2			

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>Plan prepared by NMFS as required by the MSA. The 1996 amendments to the MSA require NMFS, regional fishery management councils, and other federal agencies to identify and protect important marine and anadromous fish habitat. The EFH provisions of the MSA support one of the nation’s overall marine resource management goals – maintaining sustainable fisheries. Critical to achieving this goal is the conservation and enhancement of the quality and quantity of suitable marine and estuarine fishery habitats.</p>		FA3-3	See response to FA3-1.
<p>In addition to being designated as EFH for various federally managed fishery species, wetlands, oyster reefs, and water bottoms in the project area provide nursery and foraging habitats for a variety of recreationally and economically important marine fishery species such as blue crab, Atlantic croaker, black drum, spotted seatrout, southern flounder, and gulf menhaden. Some of these species serve as prey for other fish species managed under the MSA by the Gulf of Mexico Fishery Management Council (e.g., mackerels, snappers, and groupers) and highly migratory species managed by NMFS (e.g., billfishes and sharks). Wetlands in the project area also produce nutrients and detritus, important components of the aquatic food web, which contributes to the overall productivity of the Calcasieu estuary.</p>		FA3-3	
<p>EFH Assessment Requirements</p> <p>As the lead federal agency, FERC is required by the MSA to conduct an EFH consultation with NMFS and provide a complete EFH assessment. A complete EFH assessment should include all activities associated with this project and a description of measures taken to avoid, minimize, mitigate, or offset the adverse impacts of the proposed activities on EFH. Avoidance and minimization of direct wetland impacts should be pursued to the greatest extent practicable. At a minimum, the EFH assessment should include the following project-specific information:</p> <ul style="list-style-type: none">• The NMFS recommends providing a complete accounting of impacts to onsite tidally influenced wetlands, oyster reefs, and waterbodies, specifically characterizations and acreage quantifications of BM, IM, EOR habitats, and EWB, EWC, MWB, and MWC waterbodies;• The NMFS recommends providing a clear delineation of impacts to EFH by habitat type and development of means to avoid and minimize permanent and temporary adverse impacts to estuarine and marine habitats:<ul style="list-style-type: none">○ maps and KMZ files should be provided delineating the alteration or removal of fish habitat, and conversion of habitat types (wetlands, oyster reefs, and open waters to developed lands) through fill activities;• The NMFS recommends providing a revised DMMP specifically including:<ul style="list-style-type: none">○ development of an alternative analysis to investigate less damaging alternatives for the NDA and other dredge disposal locations for the initial dredge and subsequent maintenance dredges. Include in the analysis a description of the dredge material transportation to the placement areas;○ clarification of inconsistencies regarding the location of the NDA;○ an assessment of permanent and temporary EFH impacts to IM, BM, EOR, EWB, EWC MWB, and MWC providing characterizations and acreage quantifications of each habitat impacted;○ clarification of whether CLNG’s proposed dredge disposal actions at the NDA would be regulated by the Marine Protection, Research and Sanctuaries Act		FA3-4	See response to FA3-1.
		FA3-5	See response to FA3-1.
3			

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>(MPRSA) of 1972 (also known as the Ocean Dumping Act), provide mitigation for NDA impacts to EFH, and provide a listing and status of any other federal, state, or local permits necessary for granting approval to CLNG to use the NDA for the initial dredge and subsequent maintenance dredging events;</p> <ul style="list-style-type: none">o a description of the additional equipment planned for use and the methodology to manage the fill placement including any corrective actions to be taken to prevent excess mounding within the NDA; <p>The NMFS recommends providing a description of how permanent and temporary impacts to estuarine and marine habitats will be mitigated (e.g., facility, pipeline route, marine berth/dock areas, NDA, and water control structures):</p> <ul style="list-style-type: none">o development of a Permittee Responsible Mitigation and Monitoring Plan (PRMMP) including success criteria for Beneficial Use of Dredged Materials (BUDM) from the initial and maintenance dredging events; and/oro identification of appropriate wetland mitigation banks to offset impacts to EFH;o the use of a functional assessment and mitigation ratios to determine the quantity of wetland mitigation bank (MB) credits required, to mitigate for the functions and values lost, which should be sufficient to offset EFH impacts to tidally influenced estuarine and marine resources; and <p>The NMFS recommends providing an operations plan to assess potential structure related impacts to fisheries access, water quality, and tidal drainage/exchange in all areas surrounding the facility:</p> <ul style="list-style-type: none">o an operations plan should include triggers for water control structure closures (e.g., named storm events in the Gulf of Mexico, fixed water level elevations, crest setting, estimated frequency of closures, etc.);o an alternatives analysis and hydrological modeling results should be provided for all structures justifying how particular locations were selected, why each structure is needed, and how the size and type of each structure was determined; ando plan and cross sectional views and side slopes should be provided for all structures associated with this project. <p>Previous Correspondences</p> <p>For additional information on the requirements for a complete EFH assessment and appropriate alternatives to the NDA, the FERC should refer to previous correspondences where NMFS conveyed our concerns via letters, emails, meetings, and docket (No. CP19-502) postings:</p> <ul style="list-style-type: none">• to CLNG in letters dated May 31, 2019, and August 12, 2019, regarding an incomplete draft EFH assessment and deficiencies in the preliminary BUDM plan;• to CLNG in letter dated August 12, 2019, also recommending seven alternative BUDM sites for consideration within CLNG’s required eight to 10-mile pump distance from the facility for marsh restoration;• in correspondences with CLNG and the FERC on September 24, 2019, docket posting (No. CP19-502), requesting additional information for inclusion in the final BUDM plan;• via an in person meeting hosted by NMFS on December 18, 2019, with CLNG and other state and federal agencies to discuss the information recommended for the final BUDM plan; and provided options for CLNG’s proposed BUDM site to avoid footprint overlaps with the Coastal Wetlands Planning, Protection and Restoration Act, Oyster Lake Marsh	FA3-5	FA3-5	See response to FA3-1.
	FA3-6	FA3-6	See response to FA3-1.
	FA3-7	FA3-7	Section 4.4.1.1 has been revised to better describe the structure in light of NMFS’ comments; additionally, Commonwealth proposes to consult NMFS and other agencies for the design of the stormwater culvert that would be constructed to maintain hydrological flow from the wetlands west of the Terminal site to the Calcasieu River.
	FA3-8	FA3-8	See response to FA3-1.
4			

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>Creation Project CS-79 site;</p> <ul style="list-style-type: none">to FERC by email and docket posting (No. CP19-502) dated March 19, 2020, providing comments on the Administrative DEIS;to USACE in letter dated May 27, 2020, regarding the Joint Public Notice MVN-2018-00250-WLL where NMFS outlined the items required for a complete EFH assessment;to FERC and CLNG by email and docket posting (No. CP19-502) dated June 25, 2021, providing comments on revised Resource Reports and revised EFH assessment;to FERC by email and docket posting (No. CP19-502) dated October 21, 2021, providing comments on the Notice of Intent to prepare an EIS for the CLNG project, Request for Comments on Environmental Issues, and Revised Schedule for Environmental Review;to FERC by email and docket posting (No. CP19-502) dated October 28, 2021, regarding modifications to the consultation milestone schedule to reflect FERC’s proposed DEIS publication date of March 25, 2022;to FERC by email dated February 7, 2022, providing Administrative DEIS comments;via a virtual meeting hosted by CLNG on March 23, 2022, with NMFS, USACE, and Louisiana Department of Natural Resources - Office of Coastal Management (LDNR-OCM) to discuss NMFS’s concerns regarding selection of appropriate tidally influenced wetland MBs, appropriate mitigation ratios to offset impacts to EFH, determination of tidally influenced elevations at the facility site which support EFH, evaluation of habitat types and acreages associated with temporary and permanent impacts to EFH, and discussion of NDA activities as permanent EFH impacts and these activities may be subject to permitting under the MPRSA of 1972; andto FERC by email and docket posting (No. CP19-502) dated April 11, 2022, regarding modifications to the consultation milestone schedule to reflect FERC’s publication of the DEIS on March 31, 2022.		FA3-8	See response to FA3-1.
<p>EFH Impacts Evaluated</p> <p>According to the information provided in the applicant’s assessment, the DMMP, and the DEIS-EFH assessment, the total acreage of tidally influenced impacts to EFH associated with the proposed construction and operations of the LNG facility, pipeline ROWs and route, marine berth/dock areas, the NDA, and the water control structure is unclear, as well as proposed mitigation to offset the impacts. The NMFS cross-referenced the information provided in the applicant’s assessment, the DMMP, and the DEIS-EFH assessment, and incorporated it into Table 1. The NMFS recommends the FERC clarify information from these documents and provide us with updated information for consistency and to inform a complete EFH assessment.</p>		FA3-9	See response to FA3-1.
5			

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
Table 1. Impacts to EFH associated with the CLNG project as provided in the Applicant's Assessment, DMMP, and DEIS-EFH assessment.			
Project Area & EFH Type Impacted	Applicant's Assessment	DMMP	DEIS-EFH
Marine Berth: Permanent IM	Not Provided	1.3 acres	Not Provided
Marine Berth: Permanent BM	1.0 acre	1.0 acre	Not Provided
Marine Berth: Permanent EOR	Not Provided	Not Provided	Not Provided
Marine Berth: Permanent EWB, EWC, & Slough	0.8 acre	0.8 acre	1.6 acres
Marine Berth Dredge Area: EWB & EWC	47 acres Permanent	47 acres Temporary	47 acres Permanent
NDA Initial Dredge: MWB & MWC	1,100 acres Permanent	1,100 acres Temporary	1,100 acres Temporary
NDA Biennial Maintenance Dredge: MWB & MWC	95 acres Permanent	Not Provided Temporary	Not Provided Temporary
Facility: Permanent IM	Not Provided	Not Provided	Not Provided
Facility, Culverts, Roads: Permanent BM	10.9 acres	Not Provided	Not Provided
Facility, Culverts, Roads: Permanent EEM	Not Provided	Not Provided	11.9 acres
Facility, Culverts, Roads: Permanent EWB & EWC	2.0 acres	Not Provided	1.2 acres
Pipeline Route: AGF - BM	0.3 acre Temporary	Not Provided	0.3 acre Permanent
Pipeline Route: Temporary BM	43.6 acres	Not Provided	43.6 acres
Pipeline Route: Temporary EWB & EWC	4.4 acres	Not Provided	Not Provided
Total Permanent Impacts to IM	Not Provided	1.3 acres	Not Provided
Total Permanent Impacts to BM	11.9 acres	1.0 acre	Not Provided
Total Temporary Impacts to BM	43.6 acres	Not Provided	Not Provided
Total Permanent Impacts to EEM	Not Provided	Not Provided	65.8 acres
Total Temporary Impacts to EEM	Not Provided	Not Provided	49.9 acres
Total Permanent Impacts to EOR	Not Provided	Not Provided	Not Provided
Total Permanent Impacts to EWB, EWC, Slough, MWB, & MWC	1,244.8 acres	0.8 acre	49.8 acres
Total Temporary Impacts to EWB, EWC, Slough, MWB, & MWC	4.4 acres	1,147 acres	1,100 acres
Total EFH Mitigation Proposed from a Wetland MB	11.9 acres BM Only	Not Provided	15.0 acres: wetlands & waterbodies

FA3-9

Habitat Types and Surveys

Due to the standard error associated with Light Detection and Ranging surveys, NMFS questions their use and reliability to determine marsh elevations and recommends on-the-ground surveys are used instead. The applicant's assessment referenced three habitat surveys and NMFS recommends using the most recent survey conducted at the facility dated August 5, 2021. Appendix B of the applicant's assessment provided a species list, survey map, and indicated the following habitat types: high IM, recovering IM, IM, BM, estuarine scrub-shrub, and swale. The NMFS recommends impacts to IM habitat from the construction of the facility and the marine berth and EOR impacts from the construction of the marine berth should also be included in the FERC's revised EFH assessment, as these habitats were not evaluated. The NMFS recommends the EFH assessment for different habitat types should be updated by FERC to indicate areas of tidal and non-tidal influence with associated acreages provided and should include EOR as a habitat to be potentially impacted by constructing the marine berth/docking areas. Furthermore, NMFS recommends updating the DEIS Appendix C table entitled, "Summary of Wetland Impacts at the CLNG Project". Updates should refine impacts associated with the Cowardin Class provided as EEM to the relevant marsh type (i.e., BM and IM) impacted, indicate the

FA3-10

FA3-11

6

FA3-9	See response to FA3-1.
FA3-10	Section 4.6.3 and appendix D provide a revised EFH assessment reflecting Commonwealth's most recently proposed Project details. The revised habitat-type acreages are based on on-the-ground surveys per NMFS' recommendation.
FA3-11	See response to FA3-1 .

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>presence or absence of tidal influence, and should define associated EFH impacted acreages according to the Wetland Identification number as seen in Figure 8 of the applicant’s assessment entitled, “Marsh Type Assessment”. Figure 8 should also be updated to include EOR as an impacted habitat. The NMFS recommends also updating the DEIS Appendix C to include the Wetland Identification number “W11” as indicated on Figure 8, W11 is described as EEM containing 1.7 acres of BM and 7.5 acres of IM.</p>		FA3-11	
<p>Tidal Influence and Elevations</p> <p>Based on NMFS’s discussion with CLNG, LDNR-OCM, and USACE on March 23, 2022, CLNG revised Figure 9 (Site Elevation and Tidal Influence dated March 28, 2022) of the applicant’s assessment. The NMFS concurs with: (1) CLNG’s Figure 9 revision dated March 28, 2022; (2) mean high water as +0.88’ the North American Vertical Datum of 1988 (NAVD88) plus 0.50’ as the maximum elevation (+1.38’ NAVD88) of intertidal influence at the facility; (3) habitat lying above, greater than an elevation of +1.38’ NAVD88 is considered non-tidal; and (4) habitat lying below, less than or equal to, an elevation of +1.38’ NAVD88 is considered tidal. Based on new information, we disagree with CLNG’s assessment of the northern portion of the facility’s footprint is non-tidal. Specifically, the EEM areas, (i.e., BM and IM), found within the facility’s construction footprint are EFH, as those areas are hydrologically connected from culverts located along the highway allowing tidally influenced waters to drain in a north to south configuration into the facility’s proposed footprint. The NMFS recommends quantifying these marsh habitats as EFH and mitigation should be provided from an appropriate tidally influenced MB. Therefore, NMFS has determined the low area consisting of IM in the northern portion of the facility (abutting the south edge of Highway 27/82) should be quantified as EFH.</p> <p>Additionally, NMFS recommends the revised EFH assessment delineate the tidally influenced acreage (less than or equal to +1.38’ NAVD88) within the facility’s construction footprint, along the pipeline route, and in the marine berth/dock areas to characterize and quantify permanent and temporary EFH impacts to BM, IM, EOR, EWB, and EWC. Based upon new information provided, we have determined the facility and marine berth/dock areas are located in BM, IM, and EOR habitats, while the pipeline route is only located in BM habitat. The DEIS-EFH assessment stated ninety percent of the pipeline route crosses BM and the other ten percent crosses waterbodies. The NMFS has determined permanent EFH impacts will occur to: (1) EEM specifically BM from the facility; (2) EOR, EWB, and EWC associated with construction of the facility and the dredged area for the marine berth; and (3) MWB and MWC associated with the NDA. The NMFS recommends all documentation is updated to accurately reflect the acreages of impacts associated with construction and operations activities on tidally influenced species, and IM and EOR should be included as habitat types with temporary and permanent impacts assessed. Furthermore, CLNG proposed to create a marine berth and barge dock impacting an unquantified amount of EOR and 47 acres of EWB and EWC through the removal of up to 1.73 million cubic yards (MCY) of material within the Calcasieu River utilizing a cutter head suction dredge to a depth of 46 feet below NAVD88. The NMFS has determined disposal of dredged materials at the NDA would result in 1,100 acres of permanent impacts to EFH, including MWB and MWC.</p>		FA3-12	
		FA3-13	

FA3-11	FA3-11	See response to FA3-1.
	FA3-12	See response to FA3-1. The revised habitat-type acreages are based on the noted tidal elevations.
	FA3-13	See response to FA3-1. The revised habitat-type acreages include the northern EEM areas designated as tidally influenced.

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022			
Pipeline Route Impacts					
<p>In the applicant's assessment, Table 3.3-1 indicated a major impact to 43.6 acres of BM and 4.4 acres of EWB and EWC associated with fill activities but these impacts are listed as temporary. While the dredged material eventually would be backfilled into the pipeline trench, the degree to which wetlands and waterbodies would recover from impacts by construction activities associated with the 110-foot-wide ROW along the pipeline route is unclear. The NMFS is concerned a substantial portion of the pipeline route excavated within BM and across EWB and EWC may not recover and has the potential to cause additional impacts beyond those identified in the project documents. Pipeline corridors previously constructed in this proposed manner have often resulted in the compaction or loss of fragile soils, the creation of inadvertent canals and shoreline breaches, and ultimately, increased rates of wetland loss in the vicinity of the disturbed areas. Given Venture Global Calcasieu Pass (VGCP) LNG facility including the TransCameron Pipeline (docket No. CP15-550-000) and Cameron LNG (docket No. CP13-25-000) projects all exhibited low to partial recovery of their project's pipeline ROWs, NMFS recommends fill impacts associated with CLNG's pipeline route totaling 43.6 acres of BM habitat and 4.4 acres of EWB and EWC should be evaluated as permanent impacts and should require mitigation. Appendix B of the applicant's assessment only addressed facility impacts and NMFS recommends evaluation of medium quality BM and EWB and EWC, in accordance with the Louisiana Wetland Rapid Assessment Method (LRAM) and the Wetland Value Assessment (WVA) methodology, found along 15,769 linear feet of the pipeline route. The DEIS-EFH assessment stated CLNG proposed to use open-cut methods to install the pipeline across three major waterbodies along the pipeline route and to use the Horizontal Directional Drilling (HDD) method for three crossings of intermediate waterbodies, a span of approximately 1,940 feet. Brackish marsh, EWB, and EWC habitats would be impacted during the use of HDD and open-cut methods. The NMFS recommends locating HDD bore exit and/or entry locations, open-cut pipeline installation, and bore crossings in open water where possible to avoid and minimize potential impacts to wetlands and to reduce the number of additional temporary workspace required for pipeline construction. The CLNG's preliminary risk assessment of the hydraulic fracture and drilling fluid surface release potential for the Highway 27/82 HDD method indicated a moderate risk of an inadvertent release under Highway 27/82 and subsequent highway settlement on the order of one inch. For the remainder of the HDD alignment, including wetlands and waterbodies adjacent to Highway 27/82, the preliminary assessment indicated the risk of an inadvertent release was high to very high. Given the range of moderate to very high risk associated with HDD method, NMFS concurs with the DEIS-EFH assessment recommendation that CLNG should complete at least one additional geotechnical survey bore hole on the proposed HDD alignment and file a revised HDD Contingency Plan. This plan should be: (1) presented to NMFS for review, (2) provide a detailed approach for reducing the potential for inadvertent releases along the HDD alignment, (3) include a detailed contingency plan for responding to inadvertent releases of drilling mud in wetlands and waterbodies, and (4) include a settlement minimization and mitigation plan developed to mitigate for any adverse impacts on wetlands and waterbodies. Additionally, CLNG proposed to use an existing bridge to cross an intermediate waterbody at milepost 2.9 to transport equipment to the pipeline HDD exit point. Since this bridge was damaged by hurricanes in 2020, NMFS concurs with the DEIS-EFH assessment that CLNG should provide an updated equipment crossing/temporary access method for this waterbody and updated acreage of impacts to EFH.</p>		FA3-14			
		FA3-15			
		FA3-16			
		FA3-17			
		8			

FEDERAL AGENCIES
FA3 – National Oceanic and Atmospheric Administration
Fisheries Service, Southeast Region

Document Accession #: 20220523-5181 Filed Date: 05/23/2022	
<p>Pipeline Route Mitigation and Monitoring</p> <p>If purchase of credits from a USACE approved wetland MB is not selected as the mitigation option to offset impacts to BM, EWB, and EWC associated with the pipeline route, then NMFS recommends a PRMMP be developed prior to the FERC and the Department of the Army authorization and in coordination with NMFS. The PRMMP should restore BM, EWB, and EWC impacted from the construction and operations of CLNG’s pipeline route, provide a monitoring plan including success criteria, and copies of all monitoring results should be provided to NMFS for review. The NMFS recommends implementation of the mitigation and monitoring plan should be required to be concurrent with the construction of the CLNG project to avoid additional temporal impacts to EFH. If mitigation is not required by USACE, LDNR-OCM, or FERC for the anticipated pipeline route impacts, then at a minimum NMFS recommends, a Workspace Restoration Plan should be included as a condition to any authorization issued by the FERC. The Workspace Restoration Plan found in Appendix C of the applicant’s assessment should be included in the FERC’s revised EFH assessment, should be included as a condition to any authorization issued by the FERC, and should be updated with the following:</p> <ul style="list-style-type: none">• a monitoring plan sufficient to identify portions of the pipeline route not successfully restored to pre-project elevations. Pre- and post-impact monitoring should clearly identify pre-project versus post-project conditions of the pipeline route, including activities associated with dewatering areas, staging areas, routing, installation, and operations of the pipeline across the marsh and waterbodies. An assessment of initial construction impacts and evaluation of the recovery of the pipeline route to determine the need for compensatory mitigation, if the pipeline route does not recover within three years post construction. At a minimum, CLNG should provide an ecological comparison of pipeline route wetlands post construction from year zero to year three;• a planting plan sufficient to identify portions of the pipeline route not successfully restored to pre-project elevations. Areas disturbed by construction and operational activities should be actively revegetated. Saltgrass (<i>Distichlis spicata</i>), smooth cordgrass (<i>Spartina alterniflora</i>), and saltmeadow cordgrass (<i>Spartina patens</i>) are appropriate species for replanting to restore BM habitats, given the pipeline route is entirely compromised of EEM wetlands;• on the ground pre- and post-construction photographic documentation with a photograph key showing location and direction of each photograph which clearly indicates all vegetated wetlands occurring within the temporary and facility pipeline routes;• elevation surveys should be conducted every 500 feet along the pipeline route crossing marsh; prior to dredging of the pipeline remediation locations, immediately after backfilling, and after one complete growing season; documented using global positioning service (GPS) and on-the-ground photographs taken in both directions at each survey point to document pre-project conditions and vegetative recovery;• post-construction documentation should be submitted within 60 days of the end of the first and second full growing season (March 1 to November 1) following completion of the project;• species composition, diversity, vegetative coverage, salinity regime and tidal fluctuations, and invasive/exotic species presence/absence are consistent with the intended community agreed upon by consultation with regulatory and natural resource agencies;	
9	

FA3-18

Section 4.4.2 provides an updated assessment of Commonwealth's proposed mitigation plan. FERC finds Commonwealth's proposal acceptable, which follows the wetland restoration measures in Commonwealth's Project-specific Procedures, which incorporates FERC’s Procedures, including criteria for successful wetland revegetation (e.g., vegetation cover is at least 80 percent of the cover in adjacent wetland areas not disturbed by construction and invasive species are absent) and the requirement to develop and implement (in consultation with a professional wetland ecologist) a remedial revegetation plan if revegetation is not successful at the end of 3 years after construction

FA3-18

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<ul style="list-style-type: none">an adaptive management plan. If all or a portion of the site has to be re-planted then all required monitoring and reporting timeframes should be based on the new planting completion date; andmitigation for all permanent adverse impacts to wetlands and waterbodies should be required if warranted by the results of the monitoring effort.		FA3-18	
Impacts to Regional Hydrology			
<p>The NMFS is also concerned CLNG’s activities could adversely change regional hydrology resulting in temporary and permanent impacts to tidal habitat support functions by limiting tidal water ingress volumes and salinity levels, and restricting ingress and egress of marsh fauna. Specifically, we are concerned direct wetland losses from construction of project features and water control structures would adversely impact EFH and associated estuarine and marine fishery resources by reducing fisheries access, water quality, and water exchange in the areas surrounding the facility, south of Highway 27/82 and west of the Calcasieu River. The NMFS recommends an open culvert system and tidal creeks flowing into wetlands and waterbodies as the preferred option to ensure tidal exchange and to maintain regional hydrology. Options to avoid or minimize adverse impacts to this area’s critical tidal connection should be addressed in the revised EFH assessment to fully assess impacts to EFH. To direct water around the facility’s southern perimeter and eastward into the Calcasieu River, CLNG proposed the use of an earthen channel constructed to a depth of -3.0 feet with a bottom width of 45 feet, located on the southern and western perimeters of the facility with a culvert placed at the outfall connection to the Calcasieu River. The revised EFH assessment should indicate where the excavated sediment from the construction of the earthen channel will be placed. The NMFS recommends revising the EFH assessment to address potential structure related impacts associated with all water control structures. Updates should include: (1) an alternatives analysis; (2) a specific operations plan including triggers for water control structure closures (e.g., named storm events in the Gulf of Mexico, fixed water level elevations, crest setting, estimated frequency of closures, etc.); (3) specific details on the earthen channel, culvert, and water control structure design including cross sectional and plan views, and side slopes; (4) hydrological modeling results for all structures justifying how particular locations were selected, why each structure is needed, and how the size and type of each structure was determined; and (5) mitigation measures for all unavoidable impacts to EFH. Construction of the water control structures could also potentially induce flooding due to heavy rainfall events and high tides. Therefore, NMFS recommends conducting hydrologic modeling to assess the potential for large-scale indirect impacts on wetlands and the project should incorporate features to mitigate for any potential to increased hydroperiod, reduction in water exchange, and reduction in fisheries access in the areas surrounding the facility. The NMFS further recommends construction of the facility should not impede the naturally existing north-south drainage system nor should it disrupt the conveyance of tidal waters from the Calcasieu River in an east-west configuration, which maintains the wetlands to the west of the facility. It should be noted, an objection to this project was also filed from an adjacent landowner regarding the potential drainage impacts from his property to the Calcasieu River and LDNR-OCM has suspended processing of CLNG’s application for a Coastal Use Permit on March 15, 2022, until this matter is resolved.</p>		FA3-19	FA3-19
		FA3-20	FA3-20
		FA3-21	FA3-21

See the response to comment FA3-7.

Section 2.1.1.5 notes the excavated sediment would either be trucked offsite to an appropriate upland disposal facility or used as fill within the footprint of the Terminal.

See the response to comment FA3-7.

FEDERAL AGENCIES
FA3 – National Oceanic and Atmospheric Administration
Fisheries Service, Southeast Region

Document Accession #: 20220523-5181 Filed Date: 05/23/2022	
NDA Impacts and Cumulative Impacts to EFH	
Based upon the information provided in the applicant’s assessment, the DMMP, and the DEIS-EFH assessment, CLNG proposed disposal of dredged materials at the NDA south of Holly Beach and west of the Calcasieu Bar Channel jetty as a BUDM to help address this shoreline’s ongoing concerns of coastal erosion. The NMFS asserts the proposed fine grained, non-cohesive sediments including a substantial proportion of organic or flocculant content obtained from the CLNG site are not suitable material for nearshore disposal. Therefore, dredged material placement of fine-grained maintenance materials at the NDA will not address coastal erosion concerns at Holly Beach and should not constitute a BUDM; hence the CLNG proposed monetary contribution to the Louisiana Coastal Resources Trust fund for NDA placement (Louisiana Administrative Code 43:I Ch. 7 § 724) should not be allowed. The NMFS asserts the proposed dredged material placement activities may be subject to permitting under the MPRSA of 1972. The applicant proposes to initially dredge approximately 1.73 MCY of material over 17 months and place it in the 1,000-acre NDA, followed by biennial maintenance dredging of 152,000 cubic yards, to an average depth of one foot spread over 95 acres of the 1,100-acre site. Repeated disturbance of EFH from disposal of sediments at the NDA will result in: (1) permanent impacts to benthic infaunal communities including species composition changes, (2) a reduction in the quality of EFH, (3) displacement of individual species, (4) increased turbidity, and (5) direct mortality and burial of benthic organisms which provide nutrients, detritus, and foraging habitats, critical components of the aquatic food web for a variety of economically important marine fishery species. The NMFS disagrees the MWB impacted would quickly recolonize and recover given proposed dredging activities and disposal of dredged materials at the NDA are anticipated to occur in perpetuity, for the operational lifespan of the project. Therefore, the revised EFH assessment should include the additional disturbance of 1,100 acres of MWB and MWC at CLNG’s NDA. The NMFS also recommends compensatory mitigation to offset the cumulative impacts to EFH associated with disposal of dredged materials the NDA.	FA3-22
Disposal of four MCY of dredged materials in 2019-20 by VGCP LNG has already disturbed 1,328 acres of MWB and MWC off of Holly Beach in the vicinity of the proposed NDA and NMFS recommends these activities should be evaluated as potential cumulative impacts to EFH. The NMFS recommends FERC evaluate the cumulative impacts to EFH associated with disposal of dredged materials at the NDA from the following projects: (1) the existing VGCP LNG, (2) the proposed VGCP2 LNG, and (3) CLNG.	
DMMP	
Based on the information provided in the DMMP, which was not included in the DEIS-EFH assessment, NMFS recommends development of an alternative analysis to investigate less damaging alternatives for the NDA. The alternatives analysis should include assessment of other disposal locations and evaluation of methodologies which CLNG could use for the initial dredging and subsequent maintenance dredging events. This analysis should include a description of the dredge disposal transportation and should be included in a revised DMMP and the final EIS. The NMFS recommends FERC coordinate with EPA and USACE regarding NDA activities and the MPRSA. The DEIS-EFH assessment stated the 1,100-acre NDA is about 500 feet offshore of the Gulf of Mexico shoreline directly south of the facility, west of the Calcasieu	FA3-23

FA3-22	This comment is no longer applicable, as Commonwealth is no longer planning to dispose of dredge spoils offshore of Holly Beach as originally described. See section 4.4.2.2.
FA3-23	Commonwealth is no longer planning to dispose of dredge spoils offshore of Holly Beach as originally described. See section 4.4.2.2.

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>Bar Channel jetty and east of Holly Beach. Figure 7 - Cross Section G of the DMMP indicated the NDA is 3,350 feet wide and located 650 feet offshore, perpendicular to the shoreline of Holly Beach, and extends to 4,000 feet seaward. The DMMP GPS coordinates indicated the northwest corner (29°45'49.959"N / 93°23'26.527"W) and the northeast corner (29°45'37.470"N / 93°20'44.908"W) of the NDA are located approximately 870 feet and 755 feet, respectively, offshore of the Gulf of Mexico shoreline perpendicular to Holly Beach. The NMFS recommends the revised EFH assessment clarify inconsistencies in the applicant's assessment, DMMP, and the DEIS-EFH regarding the location of the NDA.</p> <p>The NMFS also recommends the FERC evaluate if CLNG's desktop analysis is sufficient to determine dredge material composition to inform EPA's Tier I contaminants evaluation or if additional testing should be required. The CLNG should provide the methodology and/or testing criteria used to determine the type(s) and quantities of sediments planned for transport via the slurry pipeline to the NDA or trucked to an upland disposal area. The DMMP stated Before-Dredge Survey(s) of the basin and the NDA will be conducted. The NMFS recommends CLNG provide the methods and metrics used for evaluation during these surveys, as well as pre-and post-surveys of on-site bathymetric conditions to verify that capacity within any subarea of the site has not exceeded the established limitations. Furthermore, CLNG should explain how (i.e., methods, equipment, BMPs, etc.) dredging operations will proceed in a manner which prevents displacement of material or debris outside of the dredging limits when excavating the marine berth and when disposing materials at the NDA. The CLNG should identify appropriate turbidity control measures to be used in project implementation to minimize turbidity and maintain low turbidity levels within the immediate dredged areas and at the NDA. A turbidity model should be used to assess the effects of dredged materials on surface waters and aquatic species at the NDA. The CLNG should provide a description of the additional equipment planned for use and the methods to manage fill placement including any corrective actions to be taken to prevent excess mounding within the NDA. The FERC should identify how additional EFH impacts at the NDA will be assessed and mitigated if maintenance dredging is required following unforeseen storm events. Alternatively to minimize impacts to EFH, NMFS recommends CLNG revisit the development of a BUDM plan to restore marsh with sediments obtained from the initial and maintenance dredging events planned for this project. The NMFS previously identified and recommended seven nearby alternative BUDM sites for consideration within CLNG's required eight to 10-mile pump distance from the facility for marsh restoration. Alternatively, when beneficial use is not a viable option, the NMFS recommends removal of dredged materials to an upland disposal site.</p> <p>Mitigation</p> <p>The applicant's assessment correctly identified dredging impacts associated with construction and maintenance of the marine berth, and sediment deposition in the NDA as permanent impacts to EFH. However, mitigation measures found in the applicant's assessment, the DMMP, and the DEIS-EFH assessment are inadequate to compensate for impacts to EFH (i.e., BM, IM, EOR, EWB, EWC, MWB, and MWC). Estimates of all direct and indirect project related impacts to estuarine and marine habitats should be evaluated, updated, and included in the applicant's assessment, DMMP, and DEIS-EFH to inform a complete EFH assessment for NMFS's review. The NMFS has determined permanent impacts to EFH will occur in the: (1) 47 acres associated</p>	FA3-23		
	FA3-24		Section 4.2.1.1 discusses the process used by Commonwealth to assess the likelihood of contaminants being present in the dredged sediments.
	FA3-25		Section 4.3.2.2 discusses dredging methods and related turbidity. Section 4.4.2.2 discusses Commonwealth's newly proposed BUDM site.
	FA3-26		Section 4.4.2.2 discusses Commonwealth's newly proposed BUDM site.
	FA3-27	FA3-27	See response to comment FA3-1.

FEDERAL AGENCIES

FA3 – National Oceanic and Atmospheric Administration

Fisheries Service, Southeast Region

Document Accession #: 20220523-5181		Filed Date: 05/23/2022	
<p>with the creation of the marine berth in addition to the unquantified amount of EOR impacts, (2) 1,100 acres associated with initial establishment of the NDA, and (3) 95 acres of the NDA for biennial maintenance dredging activities. The applicant's assessment, the DMMP, and the DEIS-EFH assessment do not adequately assess impacts to EFH associated with the permanent excavation and removal of IM, BM, EOR, EWB, and EWC habitats converted to deep open water through construction of the marine berth/dock area. Additionally, the DMMP only referenced brackish emergent wetlands, EWB, and EWC as the habitats impacted by construction of the marine berth/dock area and refers to the applicant's assessment, which does not include a detailed analysis of IM and EOR impacts as part of the project's evaluation. The NMFS recommends the FERC's revised EFH assessment be updated to provide a detailed analysis of dredging activities to adequately assess impacts to EFH anticipated from: (1) the expansion of the existing Calcasieu Ship Channel and construction of a marine berth/dock area (i.e., BM, IM, EOR, EWB, and EWC), (2) from maintenance of the marine berth (i.e., EWB, and EWC), and (3) from biennial maintenance disposal of sediments at the NDA (i.e., MWB and MWC).</p>		FA3-27	
<p>The DEIS-EFH stated a total of 95.9 acres of wetlands would be impacted by construction of the facility, of which 89.6 acres would be permanently impacted for operations including 65.8 acres of EEM, 14.3 acres of estuarine forested wetland, and 9.5 acres of estuarine scrub shrub, while 6.3 acres would be temporarily impacted for a construction and laydown area within EEM at the facility. Construction of the pipeline route would temporarily impact 43.6 acres of BM, of which 0.3 acre would be permanently impacted by the AGF. The CLNG proposed mitigation for 89.9 acres of permanent impacts to tidal and non-tidal wetlands through purchase of wetland MB credits at a ratio directed by the USACE and LDNR-OCM. The NMFS disagrees with the DEIS conclusions and recommendations that the CLNG project would only result in 15.0 acres of permanent impacts to EFH associated with the construction of the facility, including the marine berth/dock area, and the pipeline's AGF. The NMFS recommends FERC provide a complete EFH assessment which characterizes and quantifies impacts to all habitat types (i.e., BM, IM, EOR, EWB, EWC, MWB, and MWC). The NMFS recommends reevaluation of impacts to tidally influenced wetland, oyster reefs, and waterbodies to determine the mitigation required to offset all direct impacts to EFH. Furthermore, evaluation of all indirect impacts to EFH associated with the water control structure should be determined. The NMFS recommends FERC account for these acreages of impacts to EFH and CLNG provide appropriate mitigation to offset EFH impacts.</p>		FA3-28	See response to comment FA3-1.
<p>The preliminary mitigation analysis, approximate total acres, and Average Annual Habitat Units of EFH impacts to BM, IM, EOR, EWB, EWC, MWB, and MWC provided in the applicant's assessment, the DMMP, and the DEIS-EFH should be refined in FERC's revised EFH assessment to verify: (1) the final assessment of acres of impacts to EFH, (2) the final LRAM and WVA analyses, (3) the final project design, (4) the mitigation required per habitat type, and (5) the method of mitigation required (i.e., MB, PRMMP, BUDM, and etc.). The applicant's assessment also stated the purchase of wetland mitigation credits from a tidal MB to offset impacts to BM and waterbodies containing EFH but did not provide details on how CLNG would mitigate to offset permanent impacts to IM, EOR, EWB, EWC, MWB, and MWC. The NMFS recommends tidally influenced wetland MBs located within the Chenier Plain should be used to appropriately offset impacts to EFH such as, the Rockefeller Refuge MB for brackish and</p>		FA3-29	See response to comment FA3-1.
13			

FEDERAL AGENCIES
FA3 – National Oceanic and Atmospheric Administration
Fisheries Service, Southeast Region

Document Accession #: 20220523-5181


Filed Date: 05/23/2022

salt marsh habitats, the Bull Island MB for fresh marsh habitats, and the Aurore Ranch MB for IM habitats. The ratio used to determine the quantity of wetland MB credits required, to mitigate for the functions and values lost, should be sufficient to offset EFH impacts to tidally influenced estuarine and marine resources. The NMFS recommends a minimum of a 2:1 mitigation ratio for restoration of EFH including IM and BM habitats and a minimum of a 1:1 mitigation ratio for restoration of impacts to EOR, EWB, EWC, MWB, and MWC habitats. Compensatory mitigation to offset impacts to EFH should be developed in accordance with the LRAM and WVA methodology. Additionally, the LRAM and WVA calculations should evaluate all EFH types (i.e., BM, IM, EOR, EWB, EWC, MWB, and MWC) impacted and provide adequate mitigation to compensate for impacts to EFH. To avoid additional mitigation for temporal impacts, NMFS recommends implementation of the mitigation plan concurrent with the construction of the development.

Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations for any federal action or permit which may result in adverse impacts to EFH. The NMFS reserves the right to provide EFH conservation recommendations, if warranted, contingent upon receiving a complete EFH assessment revised to address the above technical assistance points by FERC.

We anticipate continued coordination with your office on the EFH consultation and we appreciate your consideration of our comments. If you wish to discuss this project further or have, questions please contact January Murray at (225) 380-0089.

Sincerely,



Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:

FERC, Fox-Fernandez
USACE, Herrmann
LDNR, Balkum
EPA, Jacques, McCormick
F/SER4, Dale
F/SER, Silverman, Rosegger
F/PR5, Youngkin
F/SER46, Swafford, Murray

14

FA3-29

FA3-29

See response to comment FA3-1.

21

Federal Agency Comments

STATE AGENCIES

SA1 – David F. Butler Louisiana Department of Wildlife and Fisheries


Document Accession #: 20220525-5024 Filed Date: 05/25/2022			
Dave F Butler, Baton Rouge, LA.			
The applicant proposes to install a 42" pipeline across multiple wetland areas. LDWF has concerns that the existing soils lack adequate unconfined compressive strength that would result in an excessively wide ditch and/or difficult to contain spoil piles, which ultimately will result in conversion of wetlands to open water. LDWF believes that a contingency plan (e.g., placement of board mats or earthen material at the marsh/open water interface, additional material being placed in the pipeline ditch post-construction, etc.) should be in place prior to construction activities, to implement when it is obvious there is not enough native material to fill the excavated ditch to pre-project conditions or the bankline has been compromised by work activities. Therefore, LDWF recommends that the applicant address our concerns before issuance of this permit.	SA1-1		
Ensure that the applicant provides adequate and appropriate mitigation for impacts to wetland functions. In regards to the temporary impacts to wetlands, LDWF is amenable to the allowance of a one-year growing season prior to assessing permanent impacts to vegetated wetlands.	SA1-2		
The applicant shall adhere to all state statutes (R.S. 56:2011 et seq.) and department regulations (LAC 76:XIII.101 et seq.) concerning dredging of fill sand and fill material from water bottoms of the state of Louisiana and severance royalties. For more information, contact Mr. Dave Butler at 504-286-4173.	SA1-3	SA1-2	Commonwealth has incorporated the LDWF recommendations into its revised Workspace Restoration Plan. Commonwealth has adopted the recommendations made by LDWF. Section 2.1 of Commonwealth's Workspace Restoration Plan, Rev 2, includes assessment of the contour and elevation of the area overlying the backfilled and restored trenchline to determine whether additional fill should be imported to ensure that the ground surface returns to original grade after settling. Also, our Procedures contain measures that would help prevent conversion of wetlands to open waters (including sections VI.B.2.j, VI.B.2.h, and V.B.4).
Piping Plover (Charadrius melodus) may occur within one mile of the project area. The Piping Plover is federally listed as threatened in Louisiana, and its federally designated Critical Habitat occurs along the Louisiana coast. Piping Plovers spend nonbreeding season in Louisiana, where they arrive in late July and may be present for 8 to 10 months of the year. Piping Plovers feed on intertidal beaches, mudflats, and sand flats with little or no emergent vegetation; they also require unvegetated or sparsely vegetated areas for roosting. Primary threats to Piping Plovers in Louisiana include habitat loss/degradation due to coastal development, beach stabilization and re-nourishment, sediment diversion, disturbance by humans, and environmental contaminants. We recommend that you take the necessary precautions to protect the nonbreeding habitat of this species. For more information on Piping Plover Critical Habitat, visit the USFWS website: http://endangered.fws.gov .	SA1-4	SA1-3	Comment noted. Section 4.4 addresses wetland impacts. Section 1.5 lists the Permits, Approvals, and Regulatory Reviews necessary for the Project. Commonwealth's application with the LDWF to dredge is expected to be submitted to the LDWF in Q4 2022. Threatened and endangered species are addressed in section 4.7.
The rufa subspecies of red knot (Calidris canutus rufa) may occur within one mile of the project area. Federally listed as threatened, the rufa red knot may be found in coastal Louisiana throughout the year, with the greatest number of knots migrating through each spring. Red knots forage on intertidal beaches, mudflats, marsh edges, and sand flats with sparse emergent vegetation. Primary threats to this species are anthropogenic destruction and degradation of nonbreeding habitat and food resources, habitat loss from shoreline erosion and subsidence, and human disturbance of foraging birds. For more information on the rufa red knot, visit the U.S. Fish and Wildlife website: http://endangered.fws.gov .	SA1-5	SA1-4	
The database indicates that Black Rail (Laterallus jamaicensis) may occur within the project footprint. This diminutive waterbird is included within a group of birds known as the secretive marsh birds due to the species' exceedingly cryptic behavior. Black Rail is currently considered critically imperiled (S2N, S1B) in Louisiana and is listed as federally threatened under the Endangered Species Act. Because the species is so difficult to study, its distribution and status are difficult to fully ascertain. Based on limited, contemporary, field work in coastal Louisiana, as well as historical literature and museum specimens, the Black Rail can be found in Louisiana throughout the year; the species is likely a very rare breeder and a rare migrant/winter visitor. The Black Rail prefers high marsh habitat, possibly associated with Sea Ox-eye Daisy (Borrchia frutescens) and Gulf Cordgrass (Spartina spartinae). Please minimize disturbance and alteration to high marsh habitats. Contact Rob Dobbs for additional information at 337-735-8675.	SA1-6	SA1-5	Threatened and endangered species are addressed in section 4.7.
Manatee (Trichechus manatus) may occur in the surrounding water bodies of your site location. Manatees are large mammals inhabiting both fresh and salt water. Although most manatees are year round residents of Florida or Central America, they have been known to migrate to areas along the Atlantic and Gulf coast during the summer months. Manatee is a threatened species protected under the Endangered Species Act of 1973 and the Federal Marine Mammal Protection Act of 1972. In Louisiana, taking or harassment of a manatee is in violation of state and federal law. Critical habitat for manatee includes marine submergent vascular vegetation (sea-grass beds).	SA1-7	SA1-6	Threatened and endangered species are addressed in section 4.7.

Document Accession #: 20220525-5024 Filed Date: 05/25/2022			
Areas with sea-grass beds should be avoided during project activities if possible. Report all manatee sightings to the Louisiana Department of Wildlife and Fisheries at 337-735-8676 or 1-800-442-2511.	SA1-7		
Our database indicates the presence of bird nesting colonies within one mile of this proposed project. Please be aware that entry into or disturbance of active breeding colonies is prohibited by the Louisiana Department of Wildlife and Fisheries (LDWF). In addition, LDWF prohibits work within a certain radius of an active nesting colony.	SA1-8	SA1-8	Threatened and endangered species are addressed in section 4.7; migratory birds are addressed in section 4.6.1.3.
Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 1000 feet (2000 feet for Brown Pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nest			

Non-Governmental Organizations
CO1 National Audubon Society

Document Accession #: 20220523-5145

Filed Date: 05/23/2022



3801 Canal St., suite 400
New Orleans, LA 70119
www.audubon.org

23 May 2022

Re: OEP/DG2E/Gas Branch 1
Commonwealth LNG, LLC
Commonwealth LNG project
Docket Nos. CP-502-000, CP-502-001

Dear FERC,

Thank you for the opportunity to comment on the draft Environmental Impact Statement (DEIS) for the proposed Commonwealth LNG, LLC liquefied natural gas (LNG) export facility. Audubon Delta is the regional office of the National Audubon Society (hereafter "Audubon"), encompassing the states of Arkansas, Louisiana, and Mississippi. Audubon protects birds and the places they need, today and tomorrow, throughout the Americas using science, advocacy, education, and on-the-ground conservation. Audubon champions conservation on the Gulf Coast and shares the stakes as a landowner in Louisiana for about a century, and therefore is deeply invested in the region. Audubon staff work to advance habitat restoration, conservation, and stewardship with the goal of having healthy, resilient, and sustainable coastal and marine ecosystems that support populations of birds, fish, wildlife, and people.

On behalf of Audubon's 1.5 million members, we are strongly opposed to the siting of the facility as it will disrupt natural ecosystem processes, reduce storm resilience for coastal communities in southwestern Louisiana, increase health risks through reduced air quality and increased noise pollution for people and wildlife, diminishing aesthetics of the beauty of coastal Cameron Parish, exacerbate the impacts of climate change, and substantially impact the threatened Eastern Black Rail (*Laterallus jamaicensis jamaicensis*). In addition to co-signing the letter submitted by Sierra Club and agreeing with the entirety of that letter's content, we offer here additional emphasis on several key points and to identify additional factual inaccuracies within the DEIS.

Endangered Species and Project Siting

FERC has an independent duty to make determinations separate from the Biological Opinion issued by the U.S. Fish and Wildlife Service (USFWS), which concluded "that the Action is not likely to jeopardize the continued existence of the threatened [Eastern Black Rail]" under their Biological Opinion issued 16 September 2021. It is our expert opinion that this determination is flawed and incorrect, and that the DEIS has followed suit by overlooking and undervaluing the biological importance of the proposed project location.

Protect the birds and we protect the earth.

CO1-1

On May 4, 2021, FERC provided an independent Biological Assessment to the U.S. Fish and Wildlife Service. On September 16, 2021, the U.S. Fish and Wildlife Service independently issued its Biological Opinion. Given the independence of the Biological Opinion, it is not appropriate for FERC to comment on the substance of the Opinion.

CO1-1


Non-Governmental Organizations

CO1 National Audubon Society

Document Accession #: 20220523-5145		Filed Date: 05/23/2022	
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org	
<p>As part of the USFWS Species Status Assessment (SSA)¹ in 2018 under Endangered Species Act (ESA) determination, the USFWS reported that Louisiana supported between 0 and 10 Black Rails. In addition, the SSA determined that the known Eastern Black Rail population across the Gulf and Atlantic Coasts (excluding small isolated interior U.S. populations) ranged from 900 to 2700 individuals, and that the Eastern Black Rail would likely become extinct by 2068 under the threat of climate change (specifically sea level rise) and coastal development without action. The USFWS correctly determined in their Biological Opinion using the latest peer-reviewed science that the development of the project would likely take approximately 30 Eastern Black Rails. Remarkably, this represents roughly 1-3% of the entire threatened population, and represents a substantial proportion of the known Louisiana population. Although we still do not have an accurate count of the Louisiana population, it may be as few as 100 birds, in which case this single project could jeopardize at least 1/3 of the state's population.</p>		CO1-2	CO1-2
<p>We also wish to raise and emphasize the point that the proposed location of the facility is highly unique (including among the evaluated alternative sites) within coastal Louisiana in supporting high quality high marsh habitat, on which Eastern Black Rails exclusively depend. Across 272 point-surveys conducted between 2010 and 2016 by the Louisiana Department of Wildlife and Fisheries and the National Audubon Society across coastal Louisiana wetlands, at only one point (0.4%) was a Black Rail found. This singular observation was from a rare and unique habitat within Louisiana's diverse coastal wetlands known as high marsh², a wetland in the transition zone between wet marsh and dry land that is only periodically inundated by storm surge, and maintained via occasional fire. Furthermore, as of 2017, the Louisiana Ornithological Society had only received documentation of 13 Black Rail detections ever from bird watchers and ornithologists since 1937. Collectively, this provides strong evidence that the bird is not widely found across Louisiana's vast and diverse wetlands.</p>		CO1-3	CO1-3
<p>Meanwhile, in Texas, Tolliver et al. (2019)³ had found a strong association between Black Rail presence and high marsh floristic indicators, specifically with increasing cover of Gulf cordgrass (<i>Spartina spartinae</i>). This new knowledge of strong habitat specialization by Eastern Black Rails drove Audubon to focus surveys conducted between 2017 and 2019 on remnant high marsh habitats within coastal Louisiana, which confirmed a high degree of habitat specificity and a strong association between Black Rail presence and increasing cover of Gulf cordgrass (Johnson and Lehman 2021)⁴. Additionally, radio telemetry allowed Audubon (Johnson and Lehman 2021) to follow individual birds, which showed that approximately 2 acres of high quality marsh habitat could support one Black Rail pair (2 birds). In short, the presence of up to 30 Black Rails as indicated in the USFWS Biological Opinion, which is in part based on the</p>		CO1-4	CO1-4
<p>¹ https://ecos.fws.gov/ServCat/DownloadFile/154242</p> <p>² U.S. National Vegetation Classification group G121 https://usnvc.org/</p> <p>³ Tolliver, J.D.M., A.A. Moore, M.C. Green, and F.W. Weckerly. 2019. Coastal Texas Black Rail population status and survey effort. <i>Journal of Wildlife Management</i> 83:312-324.</p> <p>⁴ Johnson, E.I., and J. Lehman. 2021. Status and habitat relationships of the Black Rail (<i>Lateallus jamaicensis</i>) in coastal Louisiana, USA. <i>Waterbirds</i> 44:234-244.</p>		Protect the birds and we protect the earth.	

Non-Governmental Organizations

CO1 National Audubon Society


Document Accession #: 20220523-5145		Filed Date: 05/23/2022	
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org	
scientific peer-reviewed findings of Johnson and Lehman (2021), is incredibly unique across coastal Louisiana wetlands.		CO1-4	CO1-4
In stark contrast to this biological reality, the DEIS erroneously and without consultation with USFWS or outside experts claims that all eight of the alternative sites could support Endangered Species Act species and that six could support Black Rails because the USFWS Information for Planning and Consultation (IPaC) online system indicates possible presence. However, IPaC is extremely conservative in determining the possible presence of endangered and candidate species as a way to engage project developers to consult with the USFWS. The IPaC system does not in any way indicate actual biological status.		CO1-5	CO1-5
Further demonstrating the risk of interpreting the IPaC system as biological reality, two of the eight alternative sites (#4 and #7) list the possibility of Red-cockaded Woodpecker being present. Nowhere on the planet do Black Rails and Red-cockaded Woodpeckers coexist, yet the IPaC considers both species as a possibility at these two sites. Red-cockaded Woodpeckers are species of old growth fire-managed longleaf pine habitat, whereas Black Rails are restricted to high marsh (which by definition cannot support trees).			
It is our expertise based on an examination of aerial imagery and knowledge of the landscape and Black Rails that possibly only site #2 among of the alternative sites have a possibility of supporting Eastern Black Rails.			
The DEIS under Section 3.0 states "[t]he principle criteria for considering and weighing the alternatives for the Project were:			CO1-6
<ul style="list-style-type: none">the ability of each alternative to reasonably meet Commonwealth's primary objective of liquefying and exporting to foreign markets 8.4 MTPA of domestically produced natural gas sourced from existing interstate and intrastate pipeline systems in southwest Louisiana;the technical and economic feasibility and practicality of each alternative; andwhether each alternative would provide a significant environmental advantage relative to the proposed undertaking."			
We contend that to "reasonably meet Commonwealth's primary objective of liquefying and exporting to foreign markets" that the geometry of a site must be suitable and it must be available for lease or purchase. According to the DEIS, sites #1, #2, and #3A do not fit the geometric dimensions to support Commonwealth LNG's needs, thus we ask why list them as possible alternative sites? This is absurd and a substantial flaw, thus alternative sites #1, #2, and #3A should not be included as "reasonable alternatives," leaving five reasonable alternative sites (#4 through #8). We are deeply concerned that sites #1, #2, and #3A are included to offer the impression of consideration of alternatives, when we the public know that Commonwealth is resolute on developing the proposed site because of its proximity to the shipping channel and Gulf of Mexico, thereby maximizing their revenues.			
Protect the birds and we protect the earth.			

Non-Governmental Organizations

CO1 National Audubon Society

Document Accession #: 20220523-5145

Filed Date: 05/23/2022



3801 Canal St., suite 400
New Orleans, LA 70119
www.audubon.org

The three primary site selection criteria also state nothing about sensitivities to communities, particularly low-income, underserved, minority, or other at-risk groups. Yet the DEIS infers proximity to communities in Table 3.3-1 (Pages 3-37, 3-38) as a selection criterion. The DEIS should clarify the significance of this criterion in their alternatives selection process.

In evaluating geometrically suitable and available alternative sites #4 through #8, it appears that several would offer reduced environmental impacts, and none would pose risks to sensitive chenier habitats and endangered species. We weigh the importance of feed gas pipeline environmental impacts as less critical, as these would largely be temporary, and/or reasonably easily mitigated. We offer our thoughts in considering alternative sites against the selected site.

- Site #4 – Because it is larger than the proposed site both in terms of area and linear waterfront availability, it stands to reason that within the larger footprint, wetlands could be at least partially avoided. The site also requires less cubic yards of dredging. We fail to understand why the DEIS claims that environmental impacts would be greater here than the proposed site.
- Site #5 – This site only has 13 acres of wetlands, has no other rare or sensitive habitats, and would require no dredging. The forests here claimed to be of value are instead generic, heavily disturbed forests, thus have substantially lower quality to migratory birds than coastal chenier forests. How is it possible that 29.4 miles of streams would require filling? Is this correct?
- Site #6 – This site appears to have roughly similar wetland impacts as the proposed site, but more dredging requirements. Could this dredge material not be used beneficially for wetland creation and mitigation?
- Site #7 – Section 3.3.8 (page 3-42) incorrectly states that this site has 402.3 acres of wetlands – this is inconsistent with Table 3.3-1 and the fact that the entire site is only 317 acres. Table 3.3-1 instead states the site contains 31.3 acres of wetlands, substantially less than the proposed site. Could increased dredging requirements not be used beneficially for wetland creation and mitigation? We fail to understand why the DEIS claims that environmental impacts would be greater than the proposed site.
- Site #8 – In our expert opinion IPaC is incorrect in suggesting that this site provides potentially suitable habitat for Whooping Crane, Piping Plover, or Red Knot (see also eBird data). However, it does appear predominantly to be wetland.

As such, we remain unconvinced that alternative sites #4, #5, #6, and #7 would not be feasible alternatives and ask that more explanation and analysis be provided to demonstrate the economic versus environmental trade-offs than the couple of sentences provided under each site consideration. Furthermore, we strongly recommend that an alternatives analysis more accurately weigh the environmental impacts, especially to rare habitats (i.e., cheniers) and endangered species. The determination of comparing environmental impacts to these sites compared to the proposed sites appears to be done largely qualitatively. We ask that a more

Protect the birds and we protect the earth.

CO1-7

CO1-8

CO1-9

CO1-10

CO1-11

CO1-12

CO1-13


CO1-7	Table 3.3-1 and the associated discussion was revised to include environmental justice communities.
CO1-8	Section 3.3.5 has been revised. Table 3.3-1 has been modified to indicate 0.0 feet of United States Geological Survey National Hydrography Dataset streams would require filing at Alternative site 5. As stated in section 3.0 of the final EIS, an alternative must provide a significant environmental advantage relative to the proposed undertaking to be recommended. While the proposed location would incur impacts on the environment, we note that there are other impacts that would occur as a result of this alternative (such that we cannot make a determination that this alternative provides a significant environmental advantage to the proposed site. Section 3.3.7 has been revised. The dredge material could be used beneficially for wetland creation and mitigation. However, this site would require a longer pipeline with additional environmental impacts, and crosses an environmental justice community.
CO1-9	Section 3.3.8 has been revised to indicate that Alternative Site 7 has 31.3 acres of wetlands and to expand on the impacts of the increased dredging requirements associated with maintaining a turning basin at this location. The dredge material could be used beneficially for wetland creation and mitigation; however, the approximately three-fold increase in dredging volume would have a substantial impact on EFH as compared to the proposed site. Furthermore, this site would require a substantially longer pipeline and crosses an environmental justice community.
CO1-10	
CO1-11	
CO1-12	Comment noted
CO1-13	Section 3.3 has been revised to include additional information. As stated in section 3.0, each alternative is considered to a point where it becomes clear if the alternative could or could not meet the three evaluation criteria (including providing a significant environmental advantage over the proposed location). Our environmental analysis considers quantitative data (e.g., acreage or mileage) and uses common comparative factors such as total length, amount of collocation, and land requirements as shown in table 3.3-1. The CPRA Coastal Master Plan Viewer and the National Fish and Wildlife Foundation’s Coastal Resilience Evaluation and Siting Tool were consulted but did not provide the extent of quantitative comparisons required and as already provided in table 3.3.1.

Non-Governmental Organizations

CO1 National Audubon Society

Document Accession #: 20220523-5145

Filed Date: 05/23/2022



3801 Canal St., suite 400
New Orleans, LA 70119
www.audubon.org

rigorous, repeatable, data-driven approach be used to compare environmental impacts across sites.

We offer two suggestions for quantifying the environmental risk, community exposure, and wildlife value in evaluating site alternatives, and surely there are additional approaches. First is through the National Fish and Wildlife Foundation's Coastal Resilience Evaluation and Siting Tool (CREST)⁵, which is used to leverage millions of dollars in coastal restoration and protection each year. Second is through the Coastal Protection and Restoration Authority (CPRA) Coastal Master Plan Viewer. Both of these tools identify the most valuable places to invest in natural infrastructure and ecosystem protection using a data-driven approach in evaluating community risk, ecosystem threat levels, and/or fish and wildlife value (see Table 1).

COI-13

Table 1. NFWF's CREST tool outputs for site alternatives.


Index Type	Index Range	Site Alternatives									
		Proposed	1	2	3A	4	5	6	7	8	
Community Exposure Index	0 to 10	7.589	7.818	7.794	8.100	7.165	8.440	7.031	7.096	7.504	
Community Asset Index	0 to 10	1.092	1.057	1.133	1.243	1.026	1.826	1.097	1.029	1.045	
Threat Index	0 to 10	8.731	9.218	8.990	9.353	7.958	8.022	7.637	7.752	8.769	
Fish and Wildlife Index	0 to 6	4.866	4.566	4.611	4.402	3.090	1.736	4.025	4.269	2.286	
Aquatic Index	0 to 5	2	2	2	2	2.923	2	1.566	1.991	2	
Terrestrial Index	0 to 5	4.866	4.566	4.611	4.402	2.2167	0.868	4.460	4.278	1.356	
Resilience Hub	0 to 10	0	2.478	0	0	4.058	3.989	5.210	6.329	3.569	
Critical Infrastructure	0 to 1	0.092	0.057	0.133	0.208	0.026	0.086	0.097	0.029	0.045	
Critical Facilities	0 to 5	0	0	0	0.035	0	0	0	0	0	
Pop. Density	0 to 5	0	0	0	0	0	0	0	0	0	
Social Vulnerability	0 to 2	0	0	0	0	0	0	0	0	0	
Impermeable Soils	0 to 5	3.466	3.791	3.545	3.362	3.636	2.973	3.124	3.300	3.391	
Soil Erodability	0 to 5	1.612	0.810	0.919	1.64	2.279	1.884	0.595	0.559	2.680	
Flood-Prone Area	0 to 5	2.566	3.988	3.405	3.970	3.365	0.615	2.753	3.135	3.227	
Geological Stressors	0 to 2	2	2	2	2	0	2	0.103	0	0	
Sea Level Rise	0 to 5	4.456	4.185	4.279	4.505	2.099	2.823	4.336	3.385	4.707	
Areas of Low Slope	0 to 5	3.862	3.766	3.850	3.813	2.975	3.433	3.442	3.459	4.380	
Storm Surge	0 to 5	3.594	4.150	4.018	4.071	3.600	3.637	2.577	2.831	3.988	


⁵ <https://resilientcoasts.org/>

Protect the birds and we protect the earth.

Non-Governmental Organizations


CO1 National Audubon Society


Document Accession #: 20220523-5145		Filed Date: 05/23/2022		
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org		
<p>The CPRA tool offers a number of scenarios under various sea level rise projections between 0 and 50 years into the future. Of particular note is that in all years, all three climate change scenarios, and with or without implementation of the Coastal Master Plan, the project site's flood risk falls within the highest category (16+ feet) of flood risk across coastal Louisiana. Constructing a 21-26 foot wall will displace that water onto adjacent sensitive wetlands, further impacting those resources through erosion, salinity stress, etc. These impacts should be modeled, evaluated, and considered in the DEIS.</p>		CO1-14	CO1-14	Section 3.3 has been revised.
<p>Our collective interpretation of the alternative sites analysis, supported by NFWF's CREST and CPRA's Coastal Master Plan viewer, is different than stated in the DEIS: "In general, these sites did not provide clear evidence of a significant environmental advantage to Commonwealth's proposed site." In particular, sites #4 through #7 experience lesser environmental threats such as flooding, soil erosion, storm surge, and/or sea level rise; all alternative sites would have reduced impacts on sensitive fish and conservation priority wildlife communities; no alternative sites contain sensitive habitats such as cheniers; and no alternative sites would likely support ESA-listed species.</p> <p><u>Mitigation Flaws</u></p> <p>A mitigation plan to offset impacts to the Eastern Black Rail is not yet written in detail anywhere, and DEIS states, "the application [will] work with the FWS to create a plan that would include restoration of vegetation communities used by [Eastern Black Rails] as habitat Project area" (Page 3-30). Failure to allow the public to review a comprehensive mitigation plan is indicative that this DEIS is premature, and should be withdrawn until all aspects of the project have been determined.</p>		CO1-15	CO1-15	Sections 3.3 and 4.7.1.2 of the final EIS have been revised. The noted text on page 3-30 of the draft EIS refers to the Terms and Conditions of the FWS Biological Opinion as described in section 4.7.1.2. This restoration plan that would be developed between Commonwealth and the FWS is specific to the restoration of the 6.3-acre EEM wetland habitat portion of the temporary construction and laydown area on the east side of the Terminal site (see section 2.1.1.5 and table 4.4.2-1 in the final EIS) that Commonwealth would restore by re-planting Gulf cordgrass, which is a primary component of eastern black rail habitat. As noted in the BO, the restored wetland vegetation would serve as potential prospective habitat.
<p>Should the proposed site be selected for development, and a detailed habitat restoration plan to serve as mitigation be developed to offset losses of up to 30 Black Rails, we would still be concerned that this could have a substantial probability of failure. Nowhere in the western Gulf of Mexico are we aware of an existing example of a marsh creation project that has intentionally succeeded in building high marsh habitat that has attracted a new population of Black Rails. The novelty of such a project requires testing, evaluation, and adaptive management. There remains substantial uncertainty in basic project engineering and design concepts such as appropriate sediment grain size, necessary tidal regime, elevation, planting density, and so on. Biological uncertainties also exist, including post-construction time to arrival/occupancy, predator dynamics on reproductive success and survivorship, habitat management and maintenance requirements, and so on.</p> <p>We are also concerned that the proposed mitigation solution of removing feral hogs is too narrow of an approach to improve habitat on the property. Although feral hog removal is indeed beneficial to the ecosystem there, this becomes entirely meaningless to Black Rails and other sensitive wildlife when the remaining adjacent high marsh habitat becomes deteriorated through</p>		CO1-16	CO1-16	Storm surge inundation is discussed in section 4.3.2.2. Commonwealth's proposal to maintain hydrological and drainage patterns is discussed in section 4.4.2. Air and noise impacts on wildlife are discussed in section 4.6.1. We note that it is unlikely that the presence of the Terminal would result in fire suppression beyond what exists currently. The entirety of the existing eastern black rail habitat within the Project area is adjacent to or within 1 mile of Highway 27/82, within 1 mile of petrochemical tanks, and adjacent to a residential camp site within the Project boundary and an RV residence.
Protect the birds and we protect the earth.				

Document Accession #: 20220523-5145		Filed Date: 05/23/2022	
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org	
changes in storm surge inundation patterns, changes to hydrological and drainage patterns, increased noise and air pollution, and experiences fire suppression.	CO1-16		
Measure #6 proposed on page 4-138 is not possible. Based on our extensive experience working with Black Rails, they cannot be predictably flushed away from areas. In addition, despite relatively intensive research on Eastern Black Rails in Texas over the last 10 years and in Louisiana over the last 5 years, only a single nest has been found, which was the result of a radio-tracked bird losing its tracking device at its nest. ⁶ The idea that Commonwealth's team would find and flag nests or relocate eggs and nests in coordination with USFWS is illogical. Simply put, project construction during the nesting season in Black Rail habitat will result in destroyed nests and permanently reduce the amount of suitable habitat for Black Rails, no matter the efforts that Commonwealth attempts to employ.	CO1-17	CO1-17	Comment noted. See section 4.7.
We remain steadfast in stating that the project location should not be developed as this substantially increases the risk of extinction for Eastern Black Rails, and instead should be placed into permanent conservation. Yes, although the site as a whole is somewhat degraded through human use and invasive species impacts, it still supports the most important contiguous high quality Black Rail habitat known in Louisiana. Restoring it to its full potential would be a much preferred alternative for the public good, as this would provide enhanced storm surge protection, fisheries habitat, and ecotourism opportunities. We would be pleased to work with the existing landowner to find solutions that offer economic and financial incentives to do so.	CO1-18	CO1-18	Comment noted. See section 4.7.
<u>Other Biological Inaccuracies in the DEIS</u>			
As part of the DEIS, FERC has described the biological significance of the region. Table 4.6.1-1 (Page 4-96 and 4-97) is incorrect in the following ways:		CO1-19	Table 4.6.1-1 has been revised.
<ul style="list-style-type: none">Black Skimmers were confirmed as breeding near the proposed site along Holly Beach in 2021,⁷ and appear to be attempting to set up a nesting colony again in 2022.Least Bitterns do not breed on the ground, they breed in emergent wetland vegetation.Loggerhead Shrikes breed in the project vicinity.⁸Red Knot primarily migrates through the region, although there may be small isolated wintering populations in southwestern Louisiana.⁹	CO1-19		
<hr/> ⁶ Haverland, A.A. 2019. Determining the Status and Distribution of the Eastern Black Rail (<i>Latreallus jamalceensis</i>) in Coastal Texas. Ph.D. Dissertation, Texas State University. ⁷ https://www.audubon.org/news/black-skimmers-successfully-nest-louisiana-mainland-first-time-decade ⁸ https://ebird.org/map/logshr?neg=true&env.minX=-100.572625&env.minY=27.049348667528953&env.maxX=-82.291375&env.maxY=34.78674566170436&zh=true&gp=true&ev=Z&m=on&bmo=5&emo=7&vr=range&bvr=1900&eyr=2021 ⁹ https://ecos.fws.gov/ServCat/DownloadFile/187781			
Protect the birds and we protect the earth.			

Non-Governmental Organizations

CO1 National Audubon Society

Document Accession #: 20220523-5145		Filed Date: 05/23/2022	
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org	
<ul style="list-style-type: none">Seaside Sparrows breed in the project vicinity.¹⁰Swainson's Warblers do not breed near the project vicinity.¹¹The American Bittern, American Oystercatcher, Buff-breasted Sandpiper, Eastern Black Rail, Hudsonian Godwit, Least Bittern, Lesser Yellowlegs, Long-billed Curlew, Red Knot, Short-billed Dowitcher, Solitary Sandpiper, Upland Sandpiper, Whimbrel, and Yellow Rail are not colonial waterbirds. These may be each grouped as a waterbird, shorebird, or marshbird, but none is colonial.		CO1-19	
Under section 4.6.1.3 (Page 4-98), it should be clarified that the Important Bird Area program is a global program managed by BirdLife International, with the National Audubon Society servicing as the lead partner within the United States.		CO1-20	CO1-20
Louisiana does not have a state endangered species list classification (Page 4-145), only a Greatest Species of Conservation Need classification, following NatureServe. ¹²		CO1-21	CO1-21
Golden-winged Warbler (page 4-139) – It is biologically incorrect that facility lighting would result in displacement of migratory songbirds, and the DEIS has overlooked that lighting and flares could result in direct mortality.		CO1-22	
Brown Pelican (pages 4-145 and 4-146) – It is incorrect to say that there is suitable nesting habitat within the project site; there is not. The only nesting site within 80 miles of the facility is at Rabbit Island, which received \$14-million in restoration prior to the 2021 nesting season and is located 5 miles to the north-northwest of the proposed project site. Accidents, spills, and air pollution related to the project site (none of which have been considered) will elevate the risk to these and other nesting birds at Rabbit Island, which is one of the most important Brown Pelican breeding sites in Louisiana. Brown Pelicans travel up and down the Calcasieu River to feed and provision their young.		CO1-23	
Interior Least Tern (Page 4-146) – This subspecies was removed from the federal Endangered Species List on February 12, 2021, and is a different population than the Least Terns that nest on Louisiana's beaches, including near the project facility. Should this project be constructed, Least Terns may attempt to nest in gravel lots and facilities, and nesting activities should be watched for in late April through July and if found, be reported to LDWF's Wildlife Diversity		CO1-24	CO1-22
¹⁰ https://ebird.org/map/seaspa?neg=true&env.minX=-95.21698023611343&env.minY=29.060313051512047&env.maxX=-90.64666773611343&env.maxY=31.014633485014418&zh=true&gp=false&ev=2&mr=on&bmo=5&emo=7&vr=range&bvr=1900&evr=2021			CO1-23
¹¹ https://ebird.org/map/swawar?neg=true&env.minX=-95.21698023611343&env.minY=29.060313051512047&env.maxX=-90.64666773611343&env.maxY=31.014633485014418&zh=true&gp=false&ev=2&mr=on&bmo=5&emo=7&vr=range&bvr=1900&evr=2021			CO1-24
¹² https://www.wlf.louisiana.gov/resources/category/wildlife-action-plans			
Protect the birds and we protect the earth.			

Document Accession #: 20220523-5145		Filed Date: 05/23/2022	
		3801 Canal St., suite 400 New Orleans, LA 70119 www.audubon.org	
Program. In addition, Audubon works with facility operators to find balanced solutions for dealing with nesting Least Terns.		CO1-24	
<u>Lighting and Flares</u>			
Migratory birds are often attracted to bright lights, including flares, which puts them at substantially increased risk of mortality through collisions, fumes, and burning. We are aware of the Facility Lighting Plan, as referenced in the DEIS (Page 4-99), and appreciate several of measures taken to minimize lighting impacts on migratory birds (reference #38 on Page 4-99). We are concerned, however, by vague commitments made by Commonwealth "to the extent feasible" and similar non-committal language.		CO1-25	CO1-25
Additionally, other conservation measures and monitoring recommendations offered by USFWS (in document 20190820-5125_Appendix_3-PUB.PDF, pdf pages 67-68) do not appear to have been adopted in the Facility Lighting Plan nor the DEIS, which include installing anti-perching devices on flare stacks (and is it 2, 3, or 4 flare stacks!), constructing open-vent stack equipment to prevent birds and bats from entering such units, and implementing frightening devices that could deter birds during a flare event. There are excellent tools available to know when large volumes of migratory birds are coming – Cornell's BirdCast ¹³ is a predictive tool that provides several days of advanced warning across large scales, and NEXRAD radar systems offer imagery in near-real-time when flying migratory birds are in the area. None of these tools or approaches are mentioned in the Facility Lighting Plan nor the DEIS to indicate that Commonwealth has done its due diligence to responsibly adjust operations to minimize the take of migratory birds. We would also contend that a substantial amount of bird migration occurs beyond the windows described by USFWS as occurring into mid-May in spring and through November in fall.		CO1-26	CO1-26
How did Commonwealth arrive at the numbers described on Page 4-99, where they would flare "for approximately 5 days during startup of the Terminal and then for no more than 12 hours during the first year of operation and 6 hours per year in subsequent years?" Venture Global LNG across Calcasieu Pass was recently documented flaring nearly continuously for 3 months, sadly during the peak of spring migration. As such, this timeline offered by Commonwealth seems unrealistically optimistic. Commitments like "to the extent feasible" do not give the public much confidence that Commonwealth is truly committed to reducing impacts to birds. Under what circumstances would this not be feasible?		CO1-27	CO1-27
Thank you for the opportunity to provide comments on the Commonwealth LNG DEIS.		CO1-28	CO1-28
¹³ https://birdcast.info/			
Protect the birds and we protect the earth.			

Section 4.6.1.3 has been revised. Commonwealth has committed to implementing the conservation measures recommended by FWS.

As noted in section 2.1.1.4, Commonwealth proposes to construct 2 flare stacks at the Terminal. The liquefaction facility flare stack would contain 3 flares and the marine facility would contain 1 flare. Commonwealth would implement the FWS-recommended mitigation measures, as discussed in section 4.6.1.3.

Comment noted.

Revised flaring duration is provided in sections 2.1.1.4, 4.6.1.3, and 4.11.2.4. Commonwealth would implement the FWS-recommended mitigation measures discussed in section 4.6.1.3. We also note that design of the Calcasieu Pass LNG project is substantially different what is proposed by Commonwealth; therefore, the expected flaring durations of the two facilities cannot be compared directly.

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
-------------------------------------	------------------------

STATUTORY AND REGULATORY BACKGROUND

I. **The National Environmental Policy Act**

“[NEPA] is our basic national charter for protection of the environment. *See Citizens Against Burlington v. Busey*, 938 F.2d 190, 193 (D.C. Cir. 1991) (citing 40 C.F.R. § 1500.1(a)). “NEPA commands agencies to imbue their decisionmaking, through the use of certain procedures, with our country's commitment to environmental salubrity.” *Id.* at 194. NEPA requires federal agencies to “consider fully the environmental effects of their proposed actions.” *See Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 68 (D.C. Cir. 2011) (internal quotation marks omitted). NEPA requires all federal agencies to include a detailed environmental impact statement (EIS) “in every recommendation or report on ... major Federal actions significantly affecting the quality of the human environment.” *See Indian River Cnty. v. U.S. DOT*, 945 F.3d 515, 522 (D.C. Cir. 2019). The process of developing an EIS “ensures that an agency will consider every significant aspect of the environmental impact of a proposed action and inform the public of its analysis.” *Id.* “[A]gencies must take a hard look at [the] environmental consequences of their actions, and provide for broad dissemination of relevant environmental information.” *Id.* This includes (1) “[d]irect effects, which are caused by the action and occur at the same time and place,” (2) “[i]ndirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable,” and (3) “[c]umulative effects,” which “result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” and can “result from

CO2-1

Page 5 of 33

CO2-1

CO2-1

Comment noted.

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
-------------------------------------	------------------------

individually minor but collectively significant actions taking place over a period of time.” 87 Fed. Reg. 23469 (Apr. 20, 2022) (revising 40 C.F.R. § 1508, effective May 20, 2022). *Id.* “[T]he statutory objectives underlying the agency’s action work significantly to define its analytical obligations” under NEPA. *See Or. Nat. Desert Ass’n v. BLM*, 625 F.3d 1092, 1109 (9th Cir. 2008). Thus, “the factors to be considered are derived from the statute the major federal action is implementing.” *Id.* at 1109 n.11. One of NEPA’s ‘twin aims’ is to “[e]nsure that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process.” *See Friends of Animals v. BLM*, 514 F.Supp.3d 290, 294 (D.D.C. 2021). NEPA requires agencies to “[e]valuate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination.” 40 C.F.R. § 1502.14. The statute also directs agencies to “[d]iscuss each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits” and include the no-action alternative. *Id.* As the Council on Environmental Quality (CEQ) states in its April 20, 2022 announcement (final rule effective May 20, 2022) reversing changes made under the Trump administration its regulations implementing NEPA:

There may be times when an agency identifies a reasonable range of alternatives that includes alternatives—other than the no action alternative—that are beyond the goals of the applicant or outside the agency’s jurisdiction because the agency concludes that they are useful for the agency decision maker and the public to make an informed decision. Always tailoring the purpose and need to an applicant’s goals when considering a request for an authorization could prevent an agency from considering alternatives that do not meet an applicant’s stated goals, but better meet the policies and requirements set forth in NEPA and the agency’s statutory authority and goals.³

CO2-1

CO2-2

³ 87 Fed Reg. 23459. Available at <https://www.federalregister.gov/documents/2022/04/20/2022-08288/national-environmental-policy-act-implementing-regulations-revisions>.

Page 6 of 33

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
<p>Under NEPA, a reviewing court will ensure that the agency “adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious.” As defined in the Administrative Procedure Act (APA), courts evaluate whether an action is “arbitrary and capricious” by evaluating “whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” <i>See Desoto General Hosp. v. Heckler</i>, 766 F.2d 182 (5th Cir.1985). This consideration of relevant factors is often stated as the “hard look” doctrine, which requires the agency to thoroughly consider the issues in the record. <i>Id.</i></p> <p>II. <u>The Natural Gas Act</u></p> <p>Under Section 3 of the NGA, the Commission is responsible for reviewing applications to construct or operate an LNG terminal. <i>Id.</i> § 717b(e). Under Section 3(a) of the NGA, the “Commission shall issue [an] order upon application, unless...it finds that the proposed exportation...will not be consistent with the public interest.”⁴ Section 153.7(c) of the Commission’s regulations, which implements Section 3(a) of the NGA, requires a showing that the proposal is not inconsistent with the public interest.⁵ In sum, all projects inconsistent with the public interest shall be denied. Should the Commission choose to authorize a proposed LNG terminal project, it may require design or siting modifications and it may impose “such terms and conditions as the Commission find necessary or appropriate.” <i>Id.</i></p> <p>As the lead agency under NEPA, the Commission staff drafts the EIS for the entire LNG project. NEPA requires DOE, the Commission, and all other project-relevant agencies to take a</p>	CO2-2		
<p>⁴ 15 U.S.C. § 717b(a).</p> <p>⁵ 18 C.F.R. § 153.7(c).</p> <p>Page 7 of 33</p>	CO2-3		Comment noted.

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
hard look at all environmental impacts, including direct impacts, indirect impacts, and cumulative impacts.	CO2-3
<p>III. <u>The Endangered Species Act (ESA)</u></p> <p>Section 7 of the Endangered Species Act (ESA), as amended, states that any project authorized, funded, or conducted by any federal agency (e.g., the Commission) should not “...jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined...to be critical...” 16 U.S.C. § 1536(a)(2) (1988). The Commission, or the Project applicant as the Commission’s non-federal representative, is required to consult with the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) to determine whether any federally listed or proposed endangered or threatened species or their designated critical habitat occur in the vicinity of the Project. If the Commission determines that these species or habitats may be impacted by the Project, the Commission is required to prepare a Biological Opinion (BO) to identify the nature and extent of adverse impact, and to recommend measures to avoid or reduce potential impacts on the habitat and/or species.</p> <p><u>DISCUSSION</u></p> <p>I. <u>The DEIS adopts a 30-year lifespan for the Project despite clear indications that the Project could and likely would operate past 30 years.</u></p> <p>“[T]he relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity . . . requires the agency to assess the action for cumulative and long-term effects from the perspective that each generation is trustee of the environment for succeeding generations.” 87 Fed. Reg. 23469 (quoting 35 Fed. Reg. 7390,</p>	<p>CO2-4</p> <p>CO2-5</p>
Page 8 of 33	

CO2-4

Section 7 of the ESA consultation with the FWS and NMFS and the FWS BO for the Project are discussed in section 4.7.1.

CO2-5

Commonwealth stated in its application that the proposed Terminal is designed for a 30-year lifespan. Commonwealth has not entered into any agreements for service for a duration longer than 30 years (the potential length of its lease notwithstanding). As noted in the introductory text of section 4.0, the EIS assesses impacts in the context of temporary, short-term, long-term, and permanent impacts. Temporary impacts are those that generally would not last beyond the duration of construction; short-term impacts are those are likely to continue for up to 3 years following construction; long-term impacts are those that would continue for longer than three years but would return to pre-existing conditions within the life of the project; and permanent impacts are those that would not return to pre-existing conditions within the life of the project. Generally, the assessments of these impacts would not change with a longer project lifespan. In fact, these assessments of long-term (meaning things would return to pre-existing conditions within 30 years) or permanent (meaning things would not return to pre-existing conditions within 30 years) could be considered conservative if the project lifespan was to extend beyond 30 years.

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
<p>7392 (May 12, 1970) (emphasis added)). As outlined above, the Commission must take a hard look at the reasonably foreseeable direct and indirect environmental impacts of the Project proposals before it, as well as cumulative impacts from the action when added to other past, present, and reasonably foreseeable future actions. Consistent with this duty under NEPA, the Commission must utilize a rational, foreseeable, and appropriate “life of the Project” or “life of the facility” to sufficiently assess the duration and extent of foreseeable impacts, adequately consider the temporal extent of cumulative actions, and determine necessary mitigation of impacts.⁶ Determining the Project lifespan by which an agency will assess the impacts is consubstantial with agency deference.⁷ However, as with other aspects of an EIS, exercises of agency deference cannot contravene the purposes of NEPA.</p>	
<p>In its application, Commonwealth claims that the Project “will be constructed for a design operation life of 30 years” and that “[n]o plans for expansion or abandonment are currently contemplated.”⁸ Utilizing the operational life identified in Commonwealth’s application, the Commission’s DEIS adopts a 30-year analysis to consider an array of Project impacts. However, the Commission’s DEIS in Section 2.1.1 also (albeit indirectly) acknowledges the potential for a longer operational term:</p>	
<p>Commonwealth has secured long-term commercial leases for the 393 acres. The leases are structured in three phases: the development period, which extends until the start of construction; the construction period, which extends from the start of construction to the start of commercial operations; and the operations period, which</p>	
<p>⁶ See, e.g., 40 C.F.R. § 1508.20(d). For purposes of NEPA analysis, mitigation includes “[r]educing or eliminating the impact over time by preservation and maintenance operations during the life of the action.”</p>	
<p>⁷ <i>Webster v. Dept. of Agriculture</i>, 685 F.3d 411 (4th Cir. 2012).</p>	
<p>⁸ Commonwealth LNG Application, RR 1, 1.9 <i>Future Plans and Abandonment</i>.</p>	
Page 9 of 33	

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
<p>begins at the start of commercial operations and lasts for 20 years with three 10-year extensions for a total of 50 years.⁹</p> <p>The Commission also acknowledges the possibility of operation past 30 years in its assessment of the socioeconomic impacts of the Project, see Section 4.9.4 and its assessment of construction payroll and material purchase. Specifically, the Commission states that the Project “would expend additional capital on maintenance material and contracts over <i>the minimum</i> 30 years of Project operation” (emphasis added)—a clear signal that the Commission recognizes the possibility that the Project could operate (and its impacts persist) beyond 30 years. LNG terminals can (and do) often have relatively long operational lives.¹⁰</p> <p>Section 3 authorizations are not time-barred; there is nothing stopping an authorized project from operating past the lifespan identified in its application. Just as the Commission must base its estimate for operational emissions on the facilities being operated at maximum capacity for 365 days per year, 24 hours per day,¹¹ analogously, the Commission should also ensure that it is considering the commercially practicable possibility that the Project (and its associated</p>	<div>CO2-6</div> <div>CO2-7</div>
<p>⁹ DEIS at 2-1.</p> <p>¹⁰ E.g., U.S. Dept. of Energy and United States Energy Assn., Global LNG Fundamentals (stating projects can be “expected to produce LNG over a period which could span 20-40 years). Available at https://www.energy.gov/sites/default/files/2018/03/F49/Global%20LNG%20Fundamentals%20Updated%203.15.18.pdf. See also, NRDC, <i>Sailing to Nowhere</i> (Dec. 2020) (“[T]he expanded production, export, and use of LNG will require large amounts of massive, long-lived, and single-purpose infrastructure such as pipelines, liquefaction plants, LNG terminals, and tankers, as well as gas-fired power plants. These types of investments lock in fossil fuel dependence and the associated emissions, making the transition to clean energy even more difficult.”). Available at https://www.nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas-report.pdf.</p> <p>¹¹ Authorizations for LNG export infrastructure should “reflect the maximum or peak capacity at optimal conditions as such a level represents the actual potential production of LNG.” <i>Sabine Pass Liquefaction, LLC</i>, 146 FERC ¶ 61,117, at P12 (2014).</p>	
Page 10 of 33	

CO2-7

See response to comment CO2-5. Also, we note that none of the conclusions in the document hinge on a 30-year versus a 50-year lifespan. Regarding the noted subsidence rate estimate, the estimate for the rate over 50 years would still fall within the range of subsidence provided in the same section that would not be considered hazardous. Regarding the chenier habitat preservation, Commonwealth has stated it would preserve the noted area for the lifespan of the project, which is anticipated, to be 30 years. A longer project lifespan would result in continued preservation of the chenier habitat area.

Document Accession #: 20220523-5172		Filed Date: 05/23/2022
<p>environmental impacts) will persist past the stated end date that a project developer initially outlines in its application. This is particularly true where that applicant has given no firm assurance that it plans to cease operations, abandon or repurpose its facility at the end of the period outlined in its application.</p> <p>For many key impacts, the Commission’s analyses hinge on the assumption of a 30-year life of the Project, rather than the possible 50 years for which the applicant has secured long-term commercial leases. The subsidence rate analysis in Section 4.1.5.3 utilizes a subsidence rate of 30 years. The chenier impacts analyzed in Section 4.5.2.1 assume Commonwealth will preserve chenier areas on the terminal property for the 30-year anticipated life of the Project. Cumulative impacts analyzed in Section 4.13 are based on a temporal extent that assumes a 30-year operational life of the Project.</p> <p>This narrowed temporal window materially alters whether impacts could be significant or insignificant. It also leaves certain mitigation actions (as in the example of chenier preservation) past 30 years up to chance, should the applicant continue operations past the anticipated life of the Project. Because the Commission holds a duty under NEPA to take a hard look at all reasonably foreseeable impacts, it must do so utilizing a timeframe that reflects the actual potential production of LNG and the environmental impacts related to that production. Other than the Commission conditioning each of its project approvals for the term the Applicant indicates in its application, or as long as the Applicant’s FTA approval (whichever is longer), few logical alternatives remain for the Commission to ensure that its NEPA analyses take into account the full, foreseeable impacts during the life of the Project. At a minimum, for this DEIS, the Commission could have ascertained (through information request) whether the applicant will operate the facility solely for the duration of time identified in its application.</p>		CO2-7
Page 11 of 33		

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022		
<p>In preparing its DEIS in a manner that sufficiently meets NEPA’s ‘twin aims,’ the Commission must utilize a life of the Project that considers the actual potential production life of a facility. Anything less deprives the public of its ability to have sufficient information and an opportunity for public participation related to the years in which a project practicably could continue to operate, but did not provide for in its application. Despite acknowledging the possibility that the Project could operate for a <i>minimum</i> of 30 years, the Commission failed to adopt this reasoning in this same document.</p> <p>II. <u>The DEIS fails to include a true “no-action” alternative, and the DEIS alternatives selected are based on applicant’s desired outcome.</u></p> <p>An EIS must “briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives. 87 Fed. Reg. 23469 (Apr. 20, 2022) (revising 40 C.F.R. § 1502, effective May 20, 2022). The purpose and need statement dictates the range of “reasonable” alternatives that the agency must consider in evaluating the environmental impacts of a proposed action. <i>See Citizens Against Burlington, Inc. v. Busey</i>, 938 F.2d 190, 195 (D.C. Cir. 1991). “An agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” <i>Id.</i> at 196.</p> <p>Here, the Commission’s purpose and need statement (Section 1.1) is based explicitly on Commonwealth’s stated purpose: “to liquefy and export to foreign markets, domestically produced natural gas sourced from the existing interstate and intrastate pipeline systems of Kinetica and Bridgeline, respectively, in southwest Louisiana.” In other sections of the DEIS, the Commission defines the Project purpose as to “liquefy and export 8.4 MTPA of natural gas to FTA and non-FTA countries” (Section 3.2) and as a “Project objective of liquefying natural gas</p>	CO2-7	CO2-8	CO2-9	
Page 12 of 33				

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
<p>for export.” Section 3.1. Consistent with its review of other LNG export projects, the Commission has again unquestioningly and unflinchingly adopted the Applicant’s narrowly-drafted statement of purpose and need; accordingly, the alternatives analyzed in the DEIS center around the Applicant’s ultimate aims. This is improper under NEPA and the APA.</p> <p>Specifically, an agency cannot define its objectives in unreasonably narrow terms. <i>See, e.g., Colo. Envtl. Coal. v. Dombeck</i>, 185 F.3d 1162, 1175 (10th Cir. 1999) (providing that “the statements of purpose and need drafted to guide the environmental review process” may not be “unreasonably narrow”); <i>see Nat’l Parks & Conservation Ass’n v. Bureau of Land Mgmt.</i>, 606 F.3d 1058, 1070 (9th Cir. 2010) (same). Moreover, while an agency must take a private applicant’s objectives into account when developing the purpose and need statement, it is the agency’s responsibility to “defin[e] the objectives of an action.” <i>See Colo. Envtl. Coal.</i>, 185 F.3d at 1175. While the Commission has “a duty to consider the applicant’s purpose,” it cannot “define its objectives in unreasonably narrow terms.” <i>See City of Carmel–By–The–Sea v. U.S. DOT</i>, 123 F.3d 1142, 1155 (9th Cir. 1997); <i>cf. Sylvester v. U.S. Army Corps of Eng’rs</i>, 882 F.2d 407, 409 (9th Cir. 1989) (“[A]n applicant cannot define a project in order to preclude the existence of any alternative sites.”). Nor can the Commission formulate its purpose and need such that the Project is rendered a foregone conclusion under NEPA. <i>See Friends of Se’s Future v. Morrison</i>, 153 F.3d 1059, 1066 (9th Cir. 1998) (“An agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” (quotation omitted)). Here, defining the “purpose and need” as exporting 8.4 MTPA of gas sourced from the Kinetica and</p>	<div>CO2-9</div>
Page 13 of 33	

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
Bridgeline intrastate pipeline systems in southwest Louisiana is functionally the same as defining the “purpose and need” as “building the Commonwealth LNG Project.”		CO2-9	
In addition to the requirement to specify a clear purpose and need for a project, NEPA imposes a clear-cut procedural obligation on the Commission to take a “hard look” at alternatives that may entail less significant impacts on resources affected by the Project. <i>See Balt. Gas & Elec. Co. v. Nat. Res. Def. Council</i> , 462 U.S. 87, 100 (1983). An EIS must “[e]valuate reasonable alternatives to the proposed action, and, for alternatives that the agency eliminated from detailed study, briefly discuss the reasons for their elimination.” 40 C.F.R. § 1502.14. Each alternative shall be “considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.” <i>Id.</i> “The existence of a viable but unexamined alternative renders an [EIS] inadequate.” <i>See Ala. Wilderness Recreation & Tourism Ass’n v. Morrison</i> , 67 F.3d 723, 729 (9th Cir. 1995) (internal citations and quotation marks omitted). Rather than engaging in the rigorous and “open” alternatives analysis that NEPA imposes upon the Commission, the Commission frames its alternative analysis around the aims of the Applicant.		CO2-10	CO2-10 Comment noted.
NEPA requires that the Commission “[e]valuate reasonable alternatives to the proposed action” and “include the no action alternative”. 40 C.F.R. § 1502.14. Where the agency is evaluating a proposal for a project, “‘no action’ . . . would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.” <i>Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations</i> , 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981).		CO2-11	CO2-11 Section 3.1 of the EIS has been revised for clarity.
Applying those principles here, it is clear that the Commission’s no-action alternative is inconsistent with NEPA and cannot be sustained. In its analysis of the no-action alternative, the			
Page 14 of 33			

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
<p>Commission states that “[u]nder the no-action alternative, the Project would not be developed and Commonwealth’s objective of liquefying and exporting natural gas to foreign markets would not be realized,” and that “the potential environmental impacts discussed in [the environmental analysis sections of the] DEIS would not occur.” DEIS at 3-26. The Commission then states, “Natural gas is used in a variety of sectors (residential, commercial, electric power generation, industrial, transportation)” and that “[i]ndependent of whether the Project is constructed, other LNG export projects may still be developed in the Gulf Coast region or elsewhere in the United States,” that “these projects would cause both adverse and beneficial impacts on the environment” and that “[t]erminal and pipeline projects of similar scope and magnitude to this Project would likely result in environmental impacts of comparable significance, especially those projects in a similar regional setting.” <i>Id.</i></p> <p>This conclusion does not constitute the kind of genuine no-action alternative analysis that NEPA demands. First, it is beyond dispute that any LNG facility constructed in the absence of the Project would itself require Commission approval under the NGA, in addition to myriad federal and state permits, and environmental analysis under NEPA and its implementing regulations. Such a project therefore cannot lawfully serve as a component of the no-action alternative. <i>See e.g., Ramsey v. Kantor</i>, 96 F.3d 434, 444 (9th Cir. 1996) (“If a federal permit is a prerequisite for a project with adverse impact on the environment, issuance of that permit does constitute major federal action and the federal agency involved must conduct an [Environmental Assessment] and possibly an EIS before granting it.”). Indeed, courts have been clear that the no-action alternative cannot assume that the baseline includes aspects of the proposed project. <i>See e.g., Friends of Yosemite Valley v. Kempthorne</i>, 520 F.3d 1024, 1026–27 (9th Cir. 2008) (finding a NEPA violation where the “no-action” alternative assumed the existence of the very plan being</p>	<div>CO2-11</div> <div>CO2-12</div>		
			Page 15 of 33

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
<p>proposed); <i>N.C. Wildlife Fed'n v. N.C. Dep't of Transp.</i>, 677 F.3d 596, 603 (4th Cir. 2012) (“[C]ourts not infrequently find NEPA violations when an agency miscalculates the “no build” baseline or where the baseline assumes the existence of the proposed project.”) Yet, the Commission’s no-action alternative for the Project does just that, as it is premised on the assumption that “[i]ndependent of whether the Project is constructed, other LNG export projects may still be developed in the Gulf Coast region <i>or elsewhere in the United States</i>,” that “these projects would cause both adverse and beneficial impacts on the environment” and that “[t]erminal and pipeline projects of similar scope and magnitude to this Project would likely result in environmental impacts of comparable significance, especially those projects in a similar regional setting.” DEIS at 3-26 (emphasis added).</p> <p>Rather than engaging in genuine no-action alternative analysis, in Section 3.1 the Commission both steadfastly embraces and immediately rejects speculation. <i>Id.</i> In suggesting its ingenuine no-action alternative, the Commission first reaches as far as to suggest that other LNG export projects may be developed (presumably) <i>anywhere elsewhere in the United States</i>, beyond the Gulf. The Commission then proceeds to conclude that the no-action alternative “could require potential end users make different arrangements to meet their needs and that (while speculative) it is possible for renewable, other traditional energy sources or possibly traditional long-term energy sources to meet the needs of potential end-users” but that “the location and use (electricity, heating, industrial feed stock, etc.) <i>would be speculative</i> and that the Commission would not be “able to judge whether the impacts would be better or worse without not knowing what the natural gas would or could be supplanted with.” The Commission then dismisses the no-action alternative as a reasonable alternative to meet the objectives of the Project. <i>Id.</i> Accordingly, the Commission’s no-action alternative contravenes basic NEPA</p>	
CO2-12	
CO2-13	
Page 16 of 33	

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
-------------------------------------	------------------------

principles and is not a genuine no-action alternative. *See* 46 Fed. Reg. at 18,027 (defining “no action” in instances involving federal decisions on proposals for projects).

CO2-13

Second, the Commission’s characterization of its no-action alternative skews the agency’s entire analysis of alternatives. DEIS 3-27 to 3-50. The no-action alternative serves as a “measuring stick” that allows for meaningful comparison between the purported benefits of the proposed action and its environmental impacts. *See Ctr. for Biological Diversity v. U.S. Dept. of Interior*, 623 F.3d 633, 642 (9th Cir. 2010) (providing that the no action alternative is intended to “provide a baseline against which the action alternative” is evaluated). Without “[accurate baseline] data, an agency cannot carefully consider information about significant environment impacts...resulting in an arbitrary and capricious decision.” *See N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1085 (9th Cir. 2011); *see also Friends of Yosemite Valley*, 520 F.3d at 1038 (holding an agency’s no-action alternative invalid because it improperly defined the baseline). This is precisely what occurred here, where the Commission’s no-action alternative “assume[d] the existence of the very plan being proposed.” *See Friends of Yosemite Valley v. Scarlett*, 439 F. Supp. 2d 1074, 1105 (E.D. Cal. 2006), *aff’d*, *Friends of Yosemite Valley*, 520 F.3d at 1037–38. To establish as the baseline the existence of a speculative project functionally identical to the very project being analyzed “is logically untenable” and renders the no-action alternative “meaningless.” *Id.*

CO2-14

The Commission cannot circumvent the requirements of NEPA by defining the “status quo” to assume the existence of the very project under analysis. The Commission’s formulation of the no-action alternative deprived the Commission and the public of a meaningful opportunity to assess the impacts of an LNG export facility against those of less environmentally destructive projects. *See Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 746 F. Supp. 2d 1055,

CO2-15

Page 17 of 33

CO2-14 See response to CO2-11.

CO2-15 See response to CO2-11.

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
<p>1091 (N.D. Cal. 2009) (“To fulfill NEPA’s goal of providing the public with information to assess the impact of a proposed action, the ‘no action’ alternative should be based on the status quo.”). Thus, the current alternatives analysis for the Project is fundamentally flawed. To comply with NEPA, the alternatives analysis must be revised to include a true no-action alternative that accurately serves as the baseline for the Commission’s NEPA analysis. <i>See</i> 46 Fed. Reg. at 18,027 (defining the “no action alternative” in instances involving federal decisions on proposed projects to be where the proposed activity would not take place).</p>		CO2-15	
<p>III. <u>The DEIS wrongfully concludes that impacts to environmental justice communities “would not be disproportionately high and adverse,” despite the fact that the closest environmental justice block groups are located approximately 528 feet from the Project facility.</u></p> <p>The principles of environmental justice (EJ) require agencies to consider whether the projects they authorize will have a “disproportionately high and adverse” impact on traditionally marginalized communities. Like the other components of an EIS, an EJ analysis is measured against the arbitrary and capricious standard. <i>See Cmty. Against Runway Expansion, Inc. v. FAA</i>, 355 F.3d 678, 689 (D.C. Cir. 2004) (explaining that arbitrary-and-capricious analysis applies to every section of an EIS, even sections included solely at the agency’s discretion). Thus, while the agency’s “choice among reasonable analytical methodologies is entitled to deference,” its analysis must nevertheless be “reasonable and adequately explained.” <i>Id.</i> Consistent with NEPA, the agency must take a hard look at EJ issues. <i>See Latin Am. for Social & Econ. Dev. v. Fed. Highway Admin.</i>, 756 F.3d 447, 475–77 (6th Cir. 2014).</p> <p>Applying those principles here, the Commission’s core EJ conclusions are arbitrary, capricious, and insufficient for meeting NEPA’s requirements. As the Commission is aware, EJ</p>		CO2-16	CO2-16 See response to FA2-10.
		CO2-17	CO2-17 See response to CO2-16.
Page 18 of 33			

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
<p>is not merely a box to be checked.¹² Proper consideration of EJ impacts is a key imperative required by NEPA, the APA and the NGA.¹³</p> <p>Here, the Commission concludes (in both Sections 4.9.12.4 and 5.1.10.1) that impacts to EJ communities will not be “disproportionately high and adverse” because the Project will not be directly located within an EJ community. This finding is arbitrary and capricious – the Commission itself acknowledges that the nearest EJ census block group to the Project is approximately 0.1 miles from the proposed Project site, or put differently, a mere 528 feet from the Project site. Equally concerning, the Commission identifies that the closest residence to the Project is 3,300 feet away from the terminal. This conclusion, that because a project is not <i>directly</i> located in an EJ community it does not have a disproportionate effect on that EJ community, ignores the most basic principles of EJ and the basic reality of the manner in which EJ communities are disproportionately exposed to environmental impacts.¹⁴ Noise, emissions and visual impacts cannot be curtailed by a census block border. This conclusion cannot be squared with the Commission’s duties under NEPA, the APA and the NGA.</p> <p>IV. <u>The meager environmental justice analysis laid out in the DEIS is inadequate and sets the Commission up to fail its goal to assess cumulative impacts on environmental justice communities.</u></p> <p>This DEIS simply does not provide the necessary information to allow the Commission to meet its recently articulated commitment to engage in fulsome and adequate EJ reviews when</p>	
	CO2-17
<p>¹² <i>Friends of Buckingham v. State Air Pollution Control Bd.</i>, 947 F.3d 68, 92 (4th Cir. 2020).</p> <p>¹³ <i>E.g. Vecinos Para El Bienestar de la Comunidad Costera v. FERC</i>, 6 F.4th 1321, 1330–31 (D.C. Cir. 2021) (remanding a Commission order in part based on a “deficient” EJ analysis).</p> <p>¹⁴ See CATF and NAACP, <i>Fumes Across the Fence-Line</i> (Nov. 2017). Available at https://naacp.org/resources/fumes-across-fence-line-health-impacts-air-pollution-oil-gas-facilities-african-american.</p> <p>Page 19 of 33</p>	CO2-18

CO2-18

The cumulative impacts are discussed in section 4.13 of the FEIS. Staff closely followed the guidance outlined in the EPA’s Promising Practices for EJ Methodologies in NEPA Reviews (2016). Using this guidance, staff has assessed direct, indirect, and cumulative impacts on environmental justice communities. The Commission’s updates to the Certificate Policy Statement are currently in draft form and are under further consideration in Commission Docket No. PL18-1-000.

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
<p>determining whether or not to authorize proposed projects. In its issuance of the 2022 Certificate Policy Statement (albeit currently in draft form¹⁵) (2022 Certificate Policy), the Commission, for the first time, focused on EJ directly in a policy statement.¹⁶ In doing so, the Commission addressed many of its failings on EJ, noted both in public comments and in decisions by federal courts, which have made it plain that the Commission has a legal mandate to adequately consider project impacts on EJ communities. The Commission expressly noted its commitment to apply the “Impacts on Environmental Justice Communities” framework laid out in the 2022 Certificate Policy to both NGA Section 7 pipeline reviews and NGA Section 3 terminal reviews.¹⁷</p>	CO2-18
<p>The 2022 Certificate Policy allows a wide array of resources to be considered when scoping EJ communities and for assessing direct, indirect, and cumulative impacts.¹⁸ The Commission also rightly recognizes that a “wide range of data” should inform the Commission’s evaluation of cumulative impacts, which the Commission has identified are akin to “pre-existing conditions” that can exacerbate adverse impacts on communities.¹⁹ Under the Commission’s articulated framework, analysis of factors such as “air pollution, heat vulnerability, and the</p>	CO2-19
<p>¹⁵ Final reply comments on the 2022 Certificate Policy, <i>Certification of New Interstate Natural Gas Facilities</i>, 178 FERC ¶ 61,107 (2022) (hereinafter 2022 Certificate Policy), are due on May 25, 2022. Many initial comments in the docket indicate that its provisions related to EJ are embraced by industry (many of whom are seeking more guidance to assist their engagement with EJ communities under this framework), communities and EJ advocates, alike. <i>E.g.</i>, “Comment of Comments of Interstate Natural Gas Association of America under PL18-1 et. al”, at P 78-81, Accession No. 20220425-5448. <i>See also generally</i> “Comment of WEACT for Environmental Justice under PL18-1 et.al.,” Accession No. 20220505-5010; <i>see also</i> “Comments of Enbridge Gas Pipelines under PL18-1 et. al.,” at P 114–17, Accession No. 20220425-5451.</p> <p>¹⁶ 2022 Certificate Policy, <i>supra</i> note 16.</p> <p>¹⁷ <i>Id.</i> at 86.</p> <p>¹⁸ <i>Id.</i> at P 92.</p> <p>¹⁹ <i>Id.</i> at P 90.</p>	
Page 20 of 33	

CO2-19

Environmental justice is addressed in section 4.9.12. Cumulative impacts are discussed in section 4.13. We reviewed the various resources based on their geographical and temporal scopes. Those results are outlined in the FEIS in table 4.13-1 and section 4.13. In addition, as stated previously, the Commission closely followed the guidance outlined in the EPA’s Promising Practices for EJ Methodologies in NEPA Reviews (2016) and used its recommendations in this cumulative impacts analysis. The Commission’s updates to the Certificate Policy Statement are currently in draft form and are under further consideration in Commission Docket No. PL18-1-000.

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
effects of pre-existing infrastructure (e.g., bus depots, highways, and waste facilities)” can be informed “by a wide range of data, including, for example, health statistics such as cancer clusters, asthma rates, social vulnerability data, and community resilience data.” ²⁰ These readily-	CO2-19
available indicators do not appear in the DEIS. ²¹ The meager and insufficient EJ analysis in the DEIS frustrates the Commission’s articulated desire (and legal mandate) to “carefully examine cumulative impacts on environmental justice communities.” ²²	
V. <u>The Commission’s analysis of air quality impacts improperly conflates NAAQS attainment as insignificance.</u>	
NEPA requires agencies to consider “every significant aspect of the environmental impact of a proposed action[.]” See <i>Greater Yellowstone Coal. v. Lewis</i> , 628 F.3d 1143, 1150 (9th Cir. 2010). This includes air quality impacts. In the DEIS, the Commission considers Project impacts on air quality, both from Project construction and from terminal operations. DEIS at 4-	CO2-20
185. For air quality impacts related to both construction and (primarily) related to Project operation, the DEIS equates attainment and compliance with air quality regulations with insignificance. DEIS at 5-381. Mere attainment with air quality standards does not in and of itself equal insignificance. Of course the emissions will be subject to permit restrictions. If the	CO2-20
<hr/> ²⁰ <i>Ibid.</i>	
²¹ See, e.g., Louisiana School of Public Health, <i>Louisiana Cancer Maps</i> , available at https://sph.lsuhsu.edu/louisiana-tumor-registry/data-usestatistics/louisiana-data-interactive-statistics/louisiana-cancer-maps/ ; NOAA, <i>Social Vulnerability Mapping</i> , available at https://nlbhis.cpo.noaa.gov/vulnerability-mapping/ ; EPA, <i>EJSCREEN Map Descriptions</i> , available at https://www.epa.gov/ejscreen/ejscreen-map-descriptions (citing specifically to indicate asthma rates); U.S. Census Bureau, <i>Community Resilience Estimates</i> , available at https://www.atsdr.cdc.gov/placeandhealth/svi/index.html , https://www.census.gov/programs-surveys/community-resilience-estimates.html .	
²² 2022 Certificate Policy, <i>supra</i> note 16, at P 90.	
Page 21 of 33	

CO2-20

Section 4.9.12 has been revised. As noted in sections 4.9.12, 4.11.1.4, and 4.11.1.8, Project construction and operation would result in air quality impacts. The dispersion modeling analysis conducted as part of the Project coupled with source culpability analyses constitutes an in-depth review of local air quality impacts. While modeling predicts potential exceedances of the NAAQS, project contributions to potential exceedances are negligible. The EPA in conjunction with local air quality agencies work to identify and remedy ambient air quality concerns through State Implementation Plans. The output of the dispersion modeling analysis and the state’s permitting of emissions for the Project conclude operational emissions from the Project are not significant. Although the NAAQS are designated to protect sensitive populations, we acknowledge that NAAQS attainment alone may not assure there is no localized harm to such populations due to project emissions of volatile organic compounds (VOC), hazardous air pollutants (HAP), as well as issues such as the presence of non-Project related pollution sources, local health risk factors, disease prevalence, and access (or lack thereof) to adequate care.

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
estimated emissions would exceed regulatory permissible levels, the facility could not be permitted and could not be built. The point of an EJ analysis is to take a hard look at instances where one or more facilities — sited within the same community and operating within the bounds of their permits — exacerbate inequitable health and environmental outcomes. Concluding that there are no disproportionately high and adverse health outcomes so long as nobody does anything illegal fails to undertake the inquiry seriously. ²³	CO2-20		
For construction impacts, the DEIS concludes that air quality impacts would not be significant because: (1) “[v]ehicular and/or marine vessel emissions from gasoline and diesel engines would comply with applicable EPA mobile source emission regulations...by using equipment manufactured to meet these specifications,” (2) that “the combustion and fugitive dust emissions that would occur during construction would be largely limited to the immediate vicinity of the Terminal site and to a lesser extent in the areas where the Pipeline would be constructed,” and, (3) that “these emissions would represent a small portion of Cameron Parish’s yearly emissions inventories and would subside once construction has been completed.” DEIS at 5-381 (In-text citation omitted). In its Air Quality conclusions section (Section 5.1.12.1), the Commission identifies explicitly <i>only</i> the construction-related air quality impacts as significant or insignificant. <i>Id.</i>	CO2-21	CO2-21	Section 4.11.1.8 has been revised to specify that based on the output of the Project dispersion modeling analysis, we conclude operational emissions from the Project are not significant.
As for impacts on air quality during project operation, the DEIS notes that impacts on air quality during operation would primarily result from emissions related to (1) the liquefaction trains and associated generators and flare systems of the terminal, (2) mobile emissions sources such as cars and trucks associated with the terminal facility, (3) LNG carriers and associated tugs	CO2-22	CO2-22	Comment noted.
²³ See Amicus Brief In Support of Conservation Petitioners, <i>Atlantic Coast Pipeline v. FERC</i> , No. 18-1224 (D.C. Cir. 2018). Available at amicus-brief-ferc-approval-atlantic-coast-pipeline-20190415.pdf (nrdc.org).			
Page 22 of 33			

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
at the marine facility, and (4) emissions related to the above-ground pipeline. <i>Id.</i> In its conclusions of the operation-related air quality impacts, the Commission concludes that the Applicant's air quality dispersion analysis indicates that the "ambient pollution concentrations that would result from [operational] emissions would not lead to any potential exceedance of air quality impact criterions." <i>Id.</i>	CO2-22
A core feature of NEPA-compliant EISs are significance assessments. When the Commission cannot determine significance, it must adequately explain why it cannot. Here, the Commission has failed to make a complete conclusion of significance or insignificance for an entire (and in this instance, the predominate) type of air quality impacts because it yet again wrongfully conflates attainment, or a project's lack of a blatant Clean Air Act violation, with insignificance. DEIS at 5-381. This is not what NEPA mandates — the Commission must still explicitly conclude whether air quality impacts are significant or not. The public should not be left to infer the agency's determination.	CO2-23
Here, the Commission has failed to make an explicit significance determination (or to provide an explanation for why it cannot offer a significance determination) pertaining to operational air quality impacts. ²⁴ This failure is particularly troubling when considering that the Commission identified that results of Commonwealth's modeling to determine source contribution in comparison with the NAAQS demonstrated that the modeled maximum impact plus background sources for 1-hour NO2 (229 micrograms per meter cubed [µg/m3]) exceeded the NAAQS of 188 µg/m3. Commonwealth conducted a source contribution analysis to determine whether the Project would contribute significantly to the modeled NAAQS	
²⁴ Compare with construction-related impacts on local air quality where the Commission explicitly concludes that "construction-related impact on local air quality during construction of the Terminal and Pipeline would not be significant." DEIS at 5-381.	
Page 23 of 33	

CO2-22

CO2-23

Under the authority of the Clean Air Act, the EPA has set, and routinely reviews, the NAAQS. This set of standards has been scientifically calculated and chosen to be protective of both human health and the environment. Operational emissions from the Project have been modeled against the NAAQS in conjunction with background concentrations representative of the project area, and while exceedances have been modeled, the Project's contribution to these exceedances is negligible. Beyond dispersion modeling, the Clean Air Act and EPA grant air permit authority to the states to determine which sources and categories of emissions are required to obtain permits to ensure air quality is protected. Operational emissions are subject to review under the Prevention of Significant Deterioration provisions of the, CAA and the source is classified as a Title V major source. By meeting the permitting obligations under PSD and Title V, the state is protecting air quality. Moreover, the dispersion modeling analysis conducted as part of the Project coupled with source culpability analyses constitutes an in-depth review of local air quality impacts. While modeling predicts potential exceedances of the NAAQS, it cannot be ignored that project contributions to potential exceedances are negligible. The EPA in conjunction with local air quality agencies works to identify and remedy ambient air quality concerns through State Implementation Plans. The output of the dispersion modeling analysis and the states permitting of emissions for the Project concludes operational emissions from the Project are not significant.

Document Accession #: 20220523-5172		Filed Date: 05/23/2022
<p>exceedance. DEIS at 5-381. The Commission contextualizes this result and states that the “proportions of the exceedance concentrations attributable to the Project are very small,” as “the highest proportion of the Project contribution for 1-hour NO2 to an exceedance concentration is 0.002 percent,” that “exceedances would still be predicted in the absence of the Project (i.e., the existing background emissions sources from LDEQ’s Emissions and Inventory Reporting Center are driving the NAAQS exceedances)” and Commonwealth’s “modeling analysis demonstrates that the proposed Project would have a minor (0.0002 percent) contribution to the modeled maximum impact.” <i>Id.</i> The Commission finally concludes that, “based on this small level of impact, [it does] not believe the Project would cause or contribute to the potential NAAQS exceedance.”</p>		CO2-23
<p>Barring inference, this is not a conclusion of significance or insignificance. <i>Id.</i> The Commission’s dismissal of impacts which (as modeled) would end in a 1-hour NO2 exceedance is troubling. The Commission’s conclusion that because an exceedance “would still be predicted in the absence of the Project” foregoes core principals of cumulative impacts analysis and reasoned environmental decision-making for the proposition that because a particular place, Parish or community already faces negative environmental outcomes, that further contributions to that negative impact (even if minor) are acceptable.²⁵ This conclusion indicates that the Commission has neither taken a hard look at the air quality impacts of the Project, nor made a full and explicit significance determination for operational air quality impacts.</p>		
<p>VI. <u>The Commission refuses to adequately consider the climate change implications of the Project.</u></p>		
<p>²⁵ See Randolph, Ned. “Pipeline Logic and Culpability: Establishing a Continuum of Harm for Sacrifice Zones.” <i>Frontiers in Environmental Science</i> 9 (2021).</p>		
Page 24 of 33		

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
<p>The Commission continues to wrongfully shirk its responsibility and commitment to determine whether or not the Project's greenhouse gas (GHG) contributions are significant or insignificant.²⁶ DEIS at 4-363. At a minimum, the Commission has a duty to consider the environmental impacts associated with the construction and operation of the Commonwealth terminal. <i>See Venture Global Calcasieu Pass, LLC</i>, 166 FERC ¶ 61,144 (2019), at p. 2 (Comm'r LaFleur, concurring) (noting that the Commission "has the clear responsibility to disclose and consider the direct and cumulative impacts of the proposed LNG export facility, in order to satisfy our obligations under NEPA and Section 3 of the NGA. While the Commission continues to claim that it cannot, as articulated by then-Commissioner Glick in his dissent to the Jordan Cove certificate order (in which the Commission similarly refused to analyze project impacts on climate change²⁷) the Commission <i>could indeed</i> take action:</p> <p>The Commission could, for example, select one methodology to inform its reasoning while also disclosing its potential limitations or the Commission could employ multiple methodologies to identify a range of potential impacts on climate change. In refusing to assess a project's climate impacts without a perfect model for doing so, the Commission sets a standard for its climate analysis that is higher than it requires for any other environmental impact. . . . [E]ven without any formal</p> <p>²⁶ See DEIS at 4-363. "To date, Commission staff have not identified a methodology to attribute discrete, quantifiable, physical effects on the environment resulting from the Project's incremental contribution to GHGs. Without the ability to determine discrete resource impacts, Commission staff are unable to assess the Project's contribution to climate change through any objective analysis of physical impact attributable to the Project. Additionally, Commission staff have not been able to find an established threshold for determining the Project's significance when compared to established GHG reduction targets at the state or federal level. This EIS is not characterizing the Project's GHG emissions as significant or insignificant because the Commission is conducting a generic proceeding to determine whether and how the Commission will conduct significance determinations going forward."</p> <p>²⁷ Compare Commonwealth DEIS with Jordan Cove EIS at 4-850 (stating that "there is no universally accepted methodology to attribute discrete, quantifiable, physical effects on the environment to Project's incremental contribution to GHGs" and "[w]ithout the ability to determine discrete resource impacts, we are unable to determine the significance of the Project's contribution to climate change."); see also <i>Jordan Cove Energy Project, L.P.</i>, 170 FERC ¶ 61,202 (2020), at P 262 ("The Commission has also previously concluded it could not determine whether a project's contribution to climate change would be significant.").</p>	<div>CO2-24</div> <div>CO2-24</div>
Page 25 of 33	

As stated in section 4.13.2.11, construction and operation of the Project would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources and would contribute incrementally to climate change impacts. To date, Commission staff have not identified a methodology to attribute discrete, quantifiable, physical effects on the environment to the Project's incremental contribution to GHGs. Without the ability to determine discrete resource impacts, Commission staff are unable to assess the Project's contribution to climate change through any objective analysis of physical impact attributable to the Project. Additionally, Commission staff have not been able to find an established threshold for determining the Project's significance when compared to established GHG reduction targets at the state or federal level. Ultimately, the EIS does not characterize these emissions as significant or insignificant because the Commission is conducting a generic proceeding to determine whether and how FERC will conduct significance determinations going forward. Although we acknowledge that the Commission has previously assessed the "significance" of GHGs, see *N. Nat. Gas Co.*, 174 FERC 61,189 (2021), we do not do so here. The Commission is considering approaches for assessing significance in a pending proceeding. See *Order on Draft Policy Statements*, 178 FERC ¶ 61,197 (2022). Lastly, see revised section 4.13.2.11.

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
<p>tool or methodology, the Commission can consider all factors and determine, quantitatively or qualitatively, whether the Project's GHG emissions will have a significant impact on climate change. After all, that is precisely what the Commission does in other aspects of its environmental review, where the Commission makes several significance determinations based on subjective assessments of the extent of the Project's impact on the environment. The Commission's refusal to similarly analyze the Project's impact on climate change is arbitrary and capricious.²⁸</p>		CO2-24	
<p>Until the Commission actually analyzes the Project's significance and climate impacts, this DEIS and subsequently-issued EISs will be incomplete, insufficient, inconsistent with the mandates of NEPA and the APA, and will lead to uninformed decision-making under the NGA.</p>		CO2-25	CO2-25 See response to Comment CO2-24.
<p>The Commission also notes that staff have not been able to find an established threshold for determining a Project's significance when compared to established GHG reduction targets at the state or federal level, and that the DEIS is not characterizing the Project's GHG emissions as significant or insignificant because the Commission is conducting a proceeding to determine whether and how the Commission will conduct significance determinations going forward.²⁹ Quantifying the direct GHG emissions of the Project and merely noting the fact that the Commission is "undertaking a proceeding to identify and finalize and appropriate GHG significance threshold" does not cure the legal issues presented by the Commission's failure to assess the significance of the Project's GHG emissions. Essentially, the Commission is saying that it will continue to issue legally deficient EISs because it is still discussing how it should issue legally sufficient ones. If the Commission does not yet know how to assess an impact, the</p>		CO2-26	CO2-26 See response to Comment CO2-24
<p>²⁸ <i>Jordan Cove Energy Project L.P.</i>, 170 FERC ¶ 61,202 (2020), at PP 14, 19 (Comm'r Glick, dissenting).</p> <p>²⁹ <i>See</i> Order on Draft Policy Statements, 178 FERC ¶ 61,197 (2022).</p>			
Page 26 of 33			

Non-Governmental Organizations
CO2 – Natural Resources Defense Council

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
solution is to wait to conduct that assessment until it can, not to continue to process applications under a system that it knows to be unlawful.		CO2-26	
<p>When preparing its EISs and reviewing proposed projects under NGA Section 3, the Commission also cannot continue to defer climate analysis to DOE. DEIS at 4-363. This is especially as DOE has disclaimed authority to consider export-induced gas production and other effects occurring upstream of delivery of LNG to an export carrier.³⁰ Commonwealth agrees that the Commission should consider the impact of its proposed project on global GHG emissions in deciding whether to approve the proposed terminal.³¹ The DEIS cannot logically consider Commonwealth's asserted indirect or lifecycle benefits <i>and</i> conclude that the no-action alternative could require "potential end users make different arrangements to meet their needs," all while wholly overlooking the Project's corresponding harms. Climate change is real. At this pressing time, where meeting climate targets is imperative to ensuring a livable planet,³² the Commission and DOE simultaneously decline to consider the environmental impacts of the</p>		CO2-27	
<p>³⁰ See DOE, Final Rule: National Environmental Policy Act Implementing Procedures, 85 Fed. Reg. 78,197-01, 78,198, 78,201 (Dec. 4, 2020).</p> <p>³¹ Amendment Application at 5-6, Accession No. 20210708-5004.</p> <p>³² See, Climate Change 2022: Mitigation of Climate Change, IPCC (Apr. 2022). <i>Available at</i> https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/; Fourth National Climate Assessment, U.S. Global Change Research Program, U.S. GLOBAL CHANGE RESEARCH PROGRAM (Nov. 23, 2018). <i>Available at</i> https://nca2018.globalchange.gov/. See also Fiona Harvey, IPCC report: 'now or never' if world is to stave off climate disaster, THE GUARDIAN (Apr. 4, 2022), https://www.theguardian.com/environment/2022/apr/04/ipcc-report-now-or-never-if-world-stave-off-climate-disaster ("Jim Skea, a professor at Imperial College London and cochair of the working group behind the report, said: 'It's now or never, if we want to limit global warming to 1.5C. Without immediate and deep emissions reductions across all sectors, it will be impossible.'").</p>		CO2-27	See response to Comment CO2-24. See also revised section 4.13.2.11.
Page 27 of 33			

Document Accession #: 20220523-5172	Filed Date: 05/23/2022
<p>authorizations they make.³³ The Commission must consider the global GHG emissions of the Projects it authorizes. Consider CEQ's recent comments on its reversal of changes made under the Trump administration to regulations implementing NEPA:³⁴</p> <p>CEQ is including direct, indirect, and cumulative effects as part of the definition of "effects" or "impacts" because they have long provided an understandable and effective framework for agencies to consider the effects of their proposed actions in a manner that is understandable to NEPA practitioners and the public. CEQ considers this approach to result in a more practical and easily implementable definition than the 2020 rule's definition of "effects" that explicitly captures the indirect and cumulative nature of many environmental effects, such as greenhouse gas emissions or habitat fragmentation. Upon further evaluation of the rationale for the 2020 rule and the comments CEQ received on the NPRM, CEQ does not consider the tort law standards of "close causal relationship" and "but for" causation to be ones that provide more clarity or predictability for NEPA practitioners, agency decision makers, or the public. Furthermore, as discussed in this section, CEQ does not consider the existing case law interpreting the 1978 definition of "effects" to require that the NEPA regulations limit agency discretion to identify reasonably foreseeable effects under such a standard. CEQ also is removing the potential limitations on consideration of temporally or geographically removed environmental effects, effects that are a product of a lengthy causal chain, and "effects that the agency has no ability to prevent due to its limited statutory authority or would occur regardless of the proposed action." These qualifications may unduly limit agency discretion and stating them as categorical rules that limit effects analyses is in tension with NEPA's directives to produce a detailed statement on the "environmental impact of [a] proposed action," "any adverse environmental effects which cannot be avoided," and "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity." 42 U.S.C. 4332(2)(C). Furthermore, this language could lead Federal agencies to omit from analysis or disclosure critical categories of reasonably foreseeable effects that are temporally or geographically removed, such as climate effects, frustrating NEPA's core purpose and Congressional intent.³⁵</p>	
<p>³³ NRDC, <i>Federal Agencies Play Hot Potato on LNG Emissions</i> (Dec. 2020). Available at https://www.nrdc.org/experts/gillian-giannetti/federal-agencies-play-hot-potato-lng-emissions.</p> <p>³⁴ 87 Fed Reg. 23453.</p>	
Page 28 of 33	

CO2-27

Document Accession #: 20220523-5172 Filed Date: 05/23/2022	
While in this “Phase One,” CEQ has voiced its intention only to restore and revise NEPA to its pre-2020 language, CEQ (the agency whose interpretation of NEPA is entitled to substantial deference ³⁶) has articulated that reliance on tort standards can unduly limit agency discretion to engage in proper effects analyses, notably climate effects.	CO2-27
VII. <u>The Commission’s DEIS fails to take a hard look at impacts to chenier and vegetation, particularly given that the proposed Project will imperil the eastern black rail and other wildlife.</u>	
The Commission concludes that Project impacts to cheniers and vegetation would not be significant. DEIS at 5-371, 5-372. As the Commission notes, chenier communities are of special concern in Louisiana. <i>Id.</i> Cheniers provide critical environmental services by acting as storm barriers, limiting the intrusion of saltwater and providing critically important stopover sites migratory birds, including the (somewhat-migratory) eastern black rail. ³⁷ DEIS at 5-371, 5-372, 5-377. The eastern black rail is a federally-listed species, and per the ESA, triggers consultation responsibilities. The Chenier Plain, which stretches roughly 100 miles from Vermillion Parish to the Texas border, is home to particular populations of the black rail. ³⁸ The Project would be located entirely within the Chenier Plain, which is one of Louisiana’s largest Important Bird Areas (IBAs) with wetlands in the IBA being home to over 360 species of birds, including ducks, egrets, geese, rails, raptors, wading birds, and shorebirds. DEIS at 5-373.	CO2-28
The Commission notes that the primary impact of the Project on vegetation (and therefore to wildlife) will be loss of wetlands habitat. DEIS at 4-340. In its cumulative impacts	CO2-29
³⁶ <i>Andrus v. Sierra Club</i> , 442 U.S. 347, 358 (1979); <i>Nat’l Audubon Soc’y</i> , 422 F.3d at 184.	
³⁷ See Barwick, Tristan. <i>The Secret Lives of Black Rails, and the Scientists Who Seek Them</i> , AUDUBON.ORG (Feb. 13, 2019). Available at https://www.audubon.org/news/the-secret-lives-black-rails-and-scientists-who-seek-them .	
³⁸ <i>Id.</i>	
Page 29 of 33	

CO2-28

Potential Project impacts on vegetation (including cheniers) and threatened and endangered species are addressed in sections 4.5, 4.6.1, and 4.7. Section 4.5.2 has been revised to include additional information in regard to cheniers.

CO2-29

Wetland mitigation is an approach for impacts on wetlands that is accepted by the U.S. Army Corps of Engineers (COE). The FWS in their BO indicated the impacts on the eastern black rail would not be significant and approved of Commonwealth’s proposed plan to remove feral hogs and preserve the chenier habitat that would not be removed during construction. A discussion of the impacts of feral hogs on wildlife habitat has been added to section 4.6.1.3. Although compensatory mitigation cannot revive a black rail should a take occur during the finite construction period, removing destructive animals, such as feral hogs and humans, from a large swath of habitat would likely promote higher productivity of future breeding pairs for decades into the future.

<p>Document Accession #: 20220523-5172 Filed Date: 05/23/2022</p> <p>analysis to Vegetation and Wildlife (4.13.2.4) the Commission states that the Project would lead to a total of 142 acres of vegetation being cleared during the construction and that over 98 percent of the vegetation cleared would be wetland vegetation. DEIS at 4-339. After construction, 49.6 acres would be allowed to return to preconstruction vegetated conditions, and 92.4 acres of wetland, chenier, slough and open water habitat will be permanently lost as a result of the Project, with a total of 13.3 acres representing chenier, specifically. DEIS at 4-340, 4-91. Despite this devastating and permanent loss for each of the species that will be impacted by the Project (including the black rail), the Commission found that migratory bird impacts would not be significant, and that the “Commonwealth LNG project would not significantly contribute to overall cumulative impacts on vegetation and wildlife.” DEIS at 4-340, 5-373. Throughout its conclusion section, the Commission references mitigation commitments from Commonwealth as the main reason for its findings that the Project would not represent a significant impact on migratory birds and wetland loss. DEIS at 5-372, 5-373.</p>	<p>CO2-29</p>
<p>The Commission’s reliance on Commonwealth’s commitments to mitigate the severe harms of the Project to determine that the Project will not significantly impact species (either directly or through habitat destruction) minimizes the Commission’s own acknowledgement that, despite these commitments, the Project will lead to permanent destruction of land, species displacement, avoidance, and habitat loss. <i>Id.</i> Compensatory wetland mitigation plans and feral hog eradication cannot revive a black rail should a lake occur, or restore the 92.4 acres of vibrant habitat that will be lost if the Commonwealth project were constructed. In its DEIS, the Commission gives short shrift to the importance of biodiversity, and the long-frame impacts that</p>	<p>CO2-30</p>

CO2-30

See the response to comment CO2-11 and CO2-29. We also note that the EIS does state that the Project would result in permanent loss of habitat and individuals of some may be lost. However, as noted in sections such as 4.4.2, 4.5.2, 4.6.1, 4.6.2, and 4.7 most impacts would be avoided, reduced, and/or mitigated to less than significant levels. Furthermore, none of the mitigation identified in the EIS centers on a 30-year Project lifespan. Commonwealth has stated it would preserve chenier habitat as described in section 4.5.2 for the duration of the Project lifespan, which is anticipated to be 30 years, but nothing about the proposed mitigation hinges on the 30-year duration.

Document Accession #: 20220523-5172		Filed Date: 05/23/2022	
<p>habitat destruction creates.³⁹ Additionally, as raised in Sec. I, <i>supra</i>, much of the mitigation identified in the DEIS centers on a 30-year life of the Project, and this is true for the Commission's consideration of impacts to impacted chenier community. DEIS at 4-91.</p> <p>Finally, the failings of the Commission's DEIS on vegetation, wetlands and species impacts are further compounded by the Commission's failure to produce a genuine no-action alternative as explained above. The best form of mitigation of the significant species, wetlands and vegetation impacts that Commonwealth would cause is not compensatory mitigation, but avoidance of the proposed project itself.⁴⁰</p>		CO2-30	
<p><u>CONCLUSION</u></p> <p>Adequate NEPA review is of critical importance to ensuring citizen participation and access to information. NEPA's framework requires agencies to demonstrate (and reviewing courts to ensure) that they have taken the required "hard look." Just as Commonwealth has failed to show that it is a necessary, just, or environmentally-sound Project, the Commission has also failed to show that its FIS has met the mandates of NEPA, the APA, and as applied, the NGA and the ESA.</p>		CO2-31	
<p>³⁹ IPBES, Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, (May 2019). Available at https://doi.org/10.5281/zenodo.383167.</p> <p>⁴⁰ See, e.g. EPA, Types of Mitigation under CWA Section 404: Avoidance, Minimization and Compensatory Mitigation. Available at https://www.epa.gov/cwa-404/types-mitigation-under-cwa-section-404-avoidance-minimization-and-compensatory-mitigation. Consider in the context of the Clean Water Act § 404(b)(1): "the Army and EPA agree that these mitigation types are generally applied sequentially in the following order": 1. Avoidance...2. Minimization...3. Compensatory Mitigation" (definitions omitted).</p>			
Page 31 of 33			

CO2-31

FERC has prepared this document in compliance with the requirements of NEPA; the Council on Environmental Quality's (CEQ) regulations implementing procedural provisions of NEPA in 40 CFR 1500–1508; and the FERC's regulations implementing NEPA in 18 CFR 380.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
FEDERAL ENERGY REGULATORY COMMISSION

IN THE MATTER OF)
Commonwealth LNG, LLC) Docket No. CP19-502

Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade,
Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network
Comments on Draft EIS for the Commonwealth LNG Project

Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket
Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network submit the
following comments on the draft environmental impact statement (“DEIS”) for the
Commonwealth LNG project. The DEIS fails to consider many impacts of the proposed project,
makes unjustifiably optimistic assumptions about others, and fails to rigorously explore
alternatives that could reduce these impacts. This project will cause adverse impacts—to the
environment, surrounding communities, and the nation as a whole—that render it contrary to the
public interest. Thus, while we offer the below comments identifying deficiencies in the NEPA
analysis, our position is that FERC and the cooperating agencies relying on FERC’s EIS should
reject the pending applications.

Table of Contents

I. Facility Output..... 4
II. Alternatives..... 5
A. No Action 5

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Page 1
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022	
<p>Terminal would be operating at full capacity.” DEIS 4-199 to 4-200.³ However, we note that in prior dockets, FERC has assumed that increasing liquefaction volumes will not increase emissions because such an increase occurs when liquefaction units operate more efficiently, by producing more LNG for the same intensity of operations and emissions. It is unclear whether FERC has made a similar assumption here—i.e., whether the DEIS is assuming that emissions would be the same if 8.4 or 9.5 MTPA of LNG are produced. Such an assumption would be inappropriate. Even where liquefaction equipment operates more efficiently to increase output without increasing emissions from that equipment, increasing output necessarily increases emissions from other sources, such as pretreatment of feed gas—when more gas is liquefied, there is more feed gas, and thus more impurities, that must be removed, regardless of how efficiently the liquefaction equipment runs. Similarly, increasing LNG output and exports necessarily requires additional marine vessel traffic. The DEIS assumes “156 LNG carrier calls per year.” DEIS 4-202. FERC should clarify what volume of gas could be transported by this amount of carrier traffic, and provide additional detail about the size and characteristics of the carriers used in estimating carrier emissions.</p> <p>More broadly, the DEIS does not explain how <i>any</i> operational emission estimates were calculated, and does not contain an appendix or any apparent citation to some other document in the docket explaining where this information can be found. Without this information, we are unable to comment on the validity or appropriateness of the DEIS’s emission estimates.</p> <p style="text-align: center;">II. Alternatives</p> <p>A. No Action</p> <p>FERC cannot argue that if the Commonwealth project is rejected, some comparable project would take its place. In discussing the no action alternative, the DEIS states:</p> <p style="padding-left: 40px;">Independent of whether the Project is constructed, other LNG export projects may still be developed in the Gulf Coast region or elsewhere in the United States and these projects would cause both adverse and beneficial impacts on the environment. Terminal and</p> <p>³ Accord DEIS at 4-216, -217, -220</p> <p><small>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network May 23, 2022</small></p>	<p>CO3-1</p> <p>CO3-1</p>

As noted in section 4.11.1.5, the emissions presented in the EIS are based on the Terminal operating at full capacity 24 hours per day for 365 days per year with an output capacity of 9.5 MTPA. Additional text has been added to section 4.11.1.5 to note that the air emissions calculations for LNG carriers calling at the Terminal are based on Kawasaki Sakaide, Mitsubishi Nagasaki or equivalent (NK Class) carriers with capacities equal to or greater than 145,000 cubic meters and 156 carrier calls per year, which is sufficient to export up to 10.4 MTPA. Lastly, additional information was included in section 4.11.1 to note the source and assumptions used in the calculation of operational and construction emissions. We note that the Commission has no jurisdiction over the LNG vessels calling on the Terminal.

Non-Governmental Organizations

CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
pipeline projects of similar scope and magnitude to this Project would likely result in environmental impacts of comparable significance, especially those projects in a similar regional setting.			
DEIS 3-26. First, other LNG projects also require FERC approval. Thus, insofar as FERC concludes that this or any other LNG project is contrary to the public interest, FERC has the power to deny the project and thereby prevent harm to the public. FERC cannot contend that LNG exports are inevitable, and that denying this project would merely divert demand to some substitute facility.		CO3-2	
Second, there is no support for FERC's claim that other projects would have "environmental impacts of comparable significance." DEIS 3-26. FERC entirely fails to compare this project to any other project, much less to demonstrate that the environmental impacts are in fact comparable. There is no reason to assume that they are; as we discuss below, different LNG designs have different environmental impacts, depending on the facility site, whether the project is greenfield or brownfield, the liquefaction technology used, the community setting, etc. While the undersigned contend that all of the proposed export projects are contrary to the public interest, insofar as exports are to occur at all, part of FERC's job should be to decide which export projects do the least harm to the public interest, rather than simply leaving it to "market forces [to] ultimately decide which and how many of these facilities are built." DEIS 3-27. FERC has entirely abdicated that responsibility here, and FERC provides no support for its suggestion that choosing the no action alternative here would simply shift demand to a comparably harmful project that might not otherwise be built.		CO3-3	
B. System Alternatives			
NEPA requires FERC to rigorously explore all feasible alternatives. Here, the DEIS fails to demonstrate that it would be infeasible to use capacity at existing or already approved export facilities in lieu of construction of the proposed Commonwealth terminal. The DEIS's conclusion that no such terminal has available additional capacity is arbitrary.			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 6 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022	
<p>those customers’ needs could instead be met by one or more of these system alternatives, alone or in combination.⁵</p> <p>However, rather than investigate reasonably foreseeable utilization or availability of these system alternatives (including a discussion of actual contracts), FERC categorically assumes that there is not any capacity on any of them, based solely on the fact that each has applied for or received DOE authorization to export to Free Trade Agreement (FTA) countries. DEIS at 3-29. Under this approach, FERC will <i>never</i> conclude that there is a feasible system alternative for <i>any</i> proposed LNG export terminal, because <i>all</i> such projects <i>always</i> seek FTA authorization for their full capacity. This effectively renders the manual’s instruction to consider system alternatives a nullity for LNG export facilities. And it is arbitrary for FERC to assume that an alternative is infeasible solely because that alternative has applied for or received a separate FTA export authorization. At most, the Natural Gas Act’s requirement that DOE automatically approve exports to FTA countries indicates that, <i>where such exports actually occur</i>, those exports provide benefits that are in the public interest. But nothing in the Natural Gas Act or NEPA requires or even permits FERC to assume that all approved FTA exports will in fact occur. And in other contexts, both FERC and DOE have candidly acknowledged that many of these projects do not have, and may not ever otherwise develop, agreements for their full capacity. We are not asking FERC to “speculate,” DEIS at 3-29, about the availability of capacity at potential system alternatives: we are instead calling on FERC to engage in a reasonable investigation and forecasting, based on concrete information such as the presence or absence of contracts for these other facilities – exactly the type of inquiry FERC purports to require for pipeline proposals.</p> <p>It is arbitrary for the DEIS to conclude that the existence of FTA applications or authorizations for these other terminals renders system alternatives that would use already-approved projects unavailable or infeasible. The DEIS provides no other analysis or justification</p>	
<p>⁵ We agree with the DEIS’s implicit rejection of Commonwealth’s argument that a system alternative is only feasible if it would provide the entire desired capacity at a single additional terminal. See Protest of Sierra Club <i>et al.</i>, Accession 20210803-5303 at 6-8 (criticizing this argument). As the manual explicitly states, a viable system alternative may consist of using other facilities “in combination” to meet the proposed project’s objectives. FERC, <i>Guidance Manual for Environmental Report Preparation</i>, at 4-136.</p>	
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Page 8 <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i> May 23, 2022</p>	

CO3-4

CO3-4

The purpose and need for the project is to provide 8.4 MTPA of LNG export from the Calcasieu Ship Channel, near the Gulf of Mexico. The Commission will evaluate whether the project satisfies the public interest standard in its Order.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173	Filed Date: 05/23/2022
for rejecting such system alternatives. Accordingly, the DEIS fails to rigorously explore potential system alternatives.	
C. Design Alternatives	
The DEIS fails to justify rejecting three design alternatives previously identified by Sierra Club <i>et al.</i> : (1) using fewer, larger storage tanks than originally proposed, (2) using more efficient liquefaction units, and (3) adding waste heat recovery units/using combined cycle processes for on-site power generation. In addition, as discussed separately below, the DEIS fails to take the required hard look at alternatives utilizing carbon capture and sequestration.	
On the first, Commonwealth initially proposed a facility with 240,000 cubic meters of storage tank capacity, to be provided by six 40,000 m ³ tanks. After Commonwealth proposed increasing the size of these tanks to 50,000 m ³ , Sierra Club <i>et al.</i> proposed omitting one of the tanks, which would still provide more storage capacity than was originally proposed while also allowing Commonwealth to reduce the facility footprint. In dismissing this alternative, the DEIS first notes that increasing the size of individual tanks did not increase the overall facility footprint. But ‘not worse than what the applicant initially proposed’ cannot be the standard by which FERC determines whether environmental impacts are significant, contrary to the public interest, or justified. If it was, applicants would be incentivized to formulate their initial proposals to be as damaging or inefficient as possible. FERC has an obligation to rigorously explore whether modifications to the proposed design would reduce impacts and further the public interest, 15 U.S.C. 717b(e)(3)(A), and this doesn’t merely mean rejecting alternatives that would make impacts worse—it also means affirmatively investigating opportunities to make things better. FERC’s alternative ground for rejecting this change is to speculate that reducing storage from 300,000 to 250,000 m ³ (still more than the 240,000 m ³ initially proposed) might require additional startups and shutdowns of liquefaction equipment, presumably if the Calcasieu Ship Channel is closed to vessel traffic for so long that the liquefaction units entirely fill the available storage without an opportunity to load a ship. DEIS 3-43. But merely speculating about a potential environmental drawback of an alternative is not the same thing as rigorously exploring that alternative. FERC offers no discussion whatsoever of how often the ship channel closes, how long such closures last, how often such a closure might result in a shutdown and	CO3-5
<i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i> <i>Page 9</i> <i>May 23, 2022</i>	

FERC recognizes that Commonwealth’s proposed Terminal layout would occupy the fewest acres per million tonnes of LNG produced per year than any other currently constructed LNG facility in the U.S. and Commonwealth’s July 2021 application amendment did not require an increase in the proposed footprint of the Terminal. Commonwealth states the sixth LNG storage tank equates to approximately one day of Terminal operation and reducing the volume of LNG storage capacity as suggested by Sierra Club *et al* would negatively affect Commonwealth’s operational flexibility in responding to inclement weather affecting the Calcasieu Ship Channel. Commonwealth amended its application to FERC in July 2021 to maintain this operational flexibility. Removing one LNG storage tank would result in a maximum decrease of approximately 2.3 acres. Given this modest change in acreage, we conclude that the possible benefits of the increased storage capacity, with no increase in the Terminal footprint from the original application, would be preferable to the potential adverse air impacts due to increased flaring events of Commonwealth having to shut down and restart the Terminal at a higher annual frequency than would otherwise occur.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>later restart of the liquefaction units, and if the closure would be long enough to require a shutdown, whether the shutdown would have occurred anyway (if, for example, the weather that shuts down the channel would have required shutting down the terminal anyway). Even if omitting one storage tank <i>would</i> foreseeably require some additional shutdowns, such that there is, to some degree, a design tradeoff between acres impacted and potential air impacts, the point of NEPA is to shine a light on those tradeoffs and inform the public and decisionmakers about their consequences. Merely speculating that an alternative might increase air emissions by some unspecified amount does not justify rejection of that alternative.</p> <p>On the second issue, Commonwealth proposes liquefaction units using the “AP-SMR” process provided by Air Products and Chemicals. Air Products and Chemicals offers an alternative process, C3MR, that Air Products and Chemicals itself identifies as more efficient and as suitable for the volumes proposed here, both in terms of individual liquefaction trains and overall facility capacity, as Sierra Club <i>et al.</i> previously explained.⁶</p> <p>The DEIS’s basis for rejecting this process is nonsensical. The DEIS absurdly asserts that this argument “misunderstand[s] ... the definition of efficiency in this context. The added efficiency between the two processes does not result in a reduction in emissions; rather, the increased efficiency allows for greater liquefaction capacity.” DEIS 3-44. Reduced emissions and greater capacity are two sides of the same coin: if each train has a higher capacity but the same emissions, then fewer trains can be used to produce the same amount of LNG, reducing overall emissions. Moreover, this argument is not supported by <i>any</i> data about the different liquefaction designs’ actual emissions for any given size or output.</p> <p>The DEIS is similarly completely devoid of information in asserting that “the C3MR process requires a substantially larger footprint.” DEIS 3-44. Nothing indicates how many acres would be required for C3MR trains capable of producing the 9.5 MTPA peak capacity proposed here, or whether the existing terminal site could accommodate such a footprint. The Cove Point facility is authorized to produce up to 5.75 MTPA using C3MR trains with liquefaction facilities that occupy only 59.5 acres.⁷ Even if using C3MR trains would take more space than the</p>	CO3-5	CO3-6	CO3-7
<p>⁶ Accession 20210803-5303 at 9-11.</p> <p>⁷ Environmental Assessment for the Cove Point Project, Accession 20140515-4002, at 1, 8, 76.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 10 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
proposed SMR trains, nothing in the EA demonstrates that such an increased liquefaction footprint could not still fit within the overall terminal boundary, especially if one of the six storage tanks is also omitted. (We also note that the DEIS does not clearly explain what, if anything, will be sited in the large area between the liquefaction units and storage tanks, beyond a small impoundment. DEIS 2-3). And even using C3MR trains would require expanding the overall terminal footprint, the DEIS does not even assert, much less demonstrate, that such an expansion would be infeasible, and it fails to rigorously explore the benefits and drawbacks of such an expansion. DEIS 3-44. This failure is galling in that it is the inverse of the DEIS's treatment of storage tanks: for tanks, the DEIS implicitly concludes that avoiding air pollution is more important than shrinking the terminal footprint, but for liquefaction design, the DEIS prioritizes a small footprint over reducing air emissions. The DEIS's failure to provide any data about the relative magnitude of the impacts to land, wetlands, or emissions from any of these alternatives would be arbitrary in any event, but it is especially inappropriate where the DEIS appears to treat these issues differently. The only apparent explanation for this disparate treatment of environmental resources appears to be that in each instance, the DEIS rubber-stamps the design the developer requested.	CO3-7		
Third, independent of whether C3MR or SMR liquefaction designs are used, the same volume of LNG can be produced with lower emissions by using additional waste heat recovery. The proposed design includes nine simple cycle gas combustion turbines: one for each of the six liquefaction units, DEIS 4-199, and three at the on-site simple-cycle power plant, producing approximately 120 megawatts, DEIS 2-6, 4-239. Emissions could be reduced by replacing some or all of these units with combined cycle units or otherwise implementing additional waste heat recovery. A recent industry analysis concluded that powering liquefaction units with combined cycle turbines "can significantly reduce CO2 emissions by reducing the required fuel demand. A plant that uses combined cycle can avoid approximately 25% of CO2 emissions associated with the base case." ⁸ Similarly, a combined cycle powerplant could produce the required 120	CO3-8	CO3-8	Section 3.6.2 has been updated to include discussion on the land use for a 120 MW combined cycle power plant.
<hr/> ⁸ Dejan Veskovic et al, Decarbonized LNG Production via Integrated Hydrogen Fueled Power Generation, Gastech Technical Conference, at 4 (Sept. 21-23 2021) (hereinafter "Veskovic, Decarbonized LNG Production"), available at https://www.airproducts.com/-/media/236f4bc68940481eb5cf5afcf8e589b6.ashx and attached.			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502		Page 11	
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,			
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022			
<p>megawatts of on-site power with lower emissions. The DEIS claims that a combined cycle plant capable of generating 500 megawatts, sufficient to power liquefaction units with electricity rather than with gas directly, would take 100 acres, but the DEIS ignores the self-evident possibility of using a combined cycle plant solely to meet the purported 120 megawatts of on-site power need.⁹ FERC has not explained what the footprint of such a unit would be, how much bigger this is than the proposed simple-cycle electric generating units, whether the terminal can accommodate the extra space, and if an expanded footprint would be required, what the impact on wetlands would be, and by how much air emissions would be reduced in exchange.</p> <p>One particular way to integrate additional waste heat recovery was illustrated by Jordan Cove's 2017 application. Like Commonwealth, Jordan Cove proposed to use single mixed refrigerant liquefaction units, of comparable size (1.56 mtpa there, vs. 1.58 peak capacity here), also powered by associated gas turbines, and also using some waste heat from liquefaction turbines as part of the gas pretreatment facility.¹⁰ However, Jordan Cove's application also proposed to meet on-site electric needs, of roughly 50 megawatts, by routing additional waste heat from the liquefaction unit's gas turbines to a series of on-site 30-megawatt steam generating turbines, each of which would occupy only 3,150 square feet, or 0.072 acres.¹¹ Thus, even if energy from the six liquefaction turbines' waste heat cannot be used to power liquefaction itself, this energy can reduce or eliminate the need for on-site electrical generation, and both the emissions and footprint associated therewith.</p>	CO3-8	CO3-9	CO3-9		
<p>⁹ Sierra Club <i>et al.</i> identified this issue in their protest, Accession 20210803-5303 at 12-13, which identified other nearby facilities using combined cycle units on this smaller scale for on-site power. But even if Sierra Club had not previously identified this alternative, FERC would be required to consider it now.</p> <p>¹⁰ Jordan Cove Energy Project, Resource Report 1 at 20 (Sept. 21, 2017), Accession 2017092105142 (describing liquefaction units), <i>id.</i> at 28 (waste heat used in part for gas "conditioning"), <i>id.</i> at 19 (explaining that conditioning is the pretreatment, <i>i.e.</i>, removal of impurities)</p> <p>¹¹ <i>Id.</i> at RR1-32, RR1-40.</p>					
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502		Page 12			
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,					
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022			

See section 4.12.1.5 “Process Design” which discusses the waste heat recovery from the Mix Refrigerant gas turbines drive. Additional waste heat recovery from the mixed refrigerant compressor gas turbines is largely similar to a full combined cycle option in terms of land use and emissions. Furthermore, steam generation heat recovery introduces equipment and land requirements beyond just the steam turbine. Air cooled condensers require considerably more area than the steam turbines, water treatment facilities are also required for steam systems.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
D. Site Alternatives			
1. Alternative Terminal Sites			
<p>The DEIS also improperly rejects numerous site alternatives. The DEIS analyzed eight alternative sites for the terminal facility all of which met the following criteria: (1) site has a minimum of 200 acres, (2) the surrounding land is compatible for construction of an LNG terminal, (3) site has waterfront access sufficient to construct a berth for LNG carriers with a minimum of 1,500 feet of shoreline, (4) site is adjacent to a navigational channel deep enough to accommodate LNG carriers with a depth of 40 feet, (5) navigational channel within the proximity of the site is wide enough to accommodate a turning basin, (6) site has reasonably close access to a natural gas supply, (7) site has reasonable proximity to utilities, and (8) site has suitable road and highway access.¹² Of the eight sites, only two are purportedly commercially unavailable, whether for purchase or lease.¹³ The DEIS fails to rigorously explore the available sites, or to justify their rejection.</p> <p>One way in which the DEIS's treatment of site alternatives was flawed was discussion of species impacts. For example, the DEIS fails to support its conclusion that alternative sites would not benefit the Eastern Black Rail ("EBR"). As the DEIS admits, no threatened and endangered species consultation has been conducted for alternative sites. DEIS, 3-30. The DEIS "an unofficial inquiry of the FWS's Information for Planning and Consultation [IPaC] online system indicates protected species may be present at all eight of the alternative sites, including the potential for presence of the eastern black rail at six of the eight alternative sites." DEIS, 3-30. But this is a misuse of the IPaC system, as the system's documentation makes plain. The IPaC system is not intended to be used as biological evidence of a species presence at a particular site. As the IPaC website makes clear, "it is for informational purposes only and does not constitute an analysis of project level impacts."¹⁴ It is also not an official species list.¹⁵ It is an</p>			
¹² DEIS at 3-29.			
¹³ DEIS at 3-38, 3-39.			
¹⁴ USFWS, IPaC Information for Planning and Consultation, at IPaC: Home (fws.gov) .			
¹⁵ <i>Id.</i>			
<i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i>		<i>Page 13</i>	
<i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i>			
<i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i>		<i>May 23, 2022</i>	

CO3-10

The alternative analysis weighs a range of environmental impacts to determine an overall assessment of whether an alternative provides a significant environmental advantage. As noted in section 3.3, the IPaC system was used for reference and not as an analysis of project level impacts. Black rails require dense vegetative cover that allows movement underneath the canopy. Because birds are found in a variety of salt, brackish, and freshwater marsh habitats that can be tidally or non-tidally influenced, plant structure is considered more important than plant species composition in predicting habitat suitability. While surveys have been conducted at the proposed location, and no surveys have been conducted at each of the alternative locations, we used the best available data (i.e., habitat) to determine if species may be present at each of the alternative locations.

CO3-10

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022			
<p>informational tool and by no means is it a substitute for consultation under the Endangered Species Act (ESA). Therefore, it appears likely that one or more alternative sites would reduce impacts of the eastern black rail, and the DEIS's suggestion to the contrary is unsupported. A hard look at the benefits and drawbacks of site alternatives requires a more careful look at whether the feasible alternative sites would reduce impacts to the eastern black rail.</p> <p>Similarly, at least one alternative site, site 5, would reduce impacts to wetlands and eliminate impacts to cheniers and other important non-wetland ecological features.¹⁶ On the other hand, the DEIS provides an unsupported reason for rejecting site 5. The DEIS argues that site 5 is close to a community center and local park, the DEIS does not acknowledge the proposed site's proximity to Holly Beach. Both sites would therefore impact the local community, and the DEIS fails to demonstrate that site 5 would have a <i>greater</i> impact.</p> <p>The DEIS argues that the proposed site has various other advantages, including "the shortest transit from the Gulf of Mexico, thus reducing impacts from vessel traffic; and the least amount of dredging, reducing impacts on surface water and aquatic resources."¹⁷ We agree that these are important factors to consider. But NEPA and the Natural Gas Act require FERC to balance all impacts in evaluating alternatives, and here, the DEIS fails to analyze whether, for example, the reduced dredging provided by the proposed site is a greater or lesser boon than the reduced wetland and chenier impact at site 5.</p> <p>2. Alternative Pipeline Sites and Routes</p> <p>The DEIS fails to rigorously explore alternative pipeline routes, including, in particular, route 4, which was recommended by The Louisiana Department of Wildlife and Fisheries. The proposed pipeline would be three miles long and is not collocated with existing rights-of-way at all. DEIS 3-48. Route 4, on the other hand, would be co-located for 2.6 miles but would increase total pipeline length by only 0.1 miles, thereby avoiding 2.5 miles of new right-of-way (an 83% reduction in new right-of-way relative to the proposed route).¹⁸ In rejecting this alternative, the</p>	CO3-11	CO3-12	CO3-13		
	CO3-14	CO3-15	CO3-16		
<p>¹⁶ DEIS at 3-37, 3-38, 3-41.</p> <p>¹⁷ DEIS at 3-43.</p> <p>¹⁸ DEIS at 3-49.</p>					
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 14</i> <i>May 23, 2022</i></p>			

The alternative analysis weighs a range of environmental impacts to determine an overall assessment of whether an alternative provides a significant environmental advantage. Section 3.3 includes an impacts analysis of the site alternatives on a variety of resources. In addition, the Commonwealth LNG Project Biological Opinion stated the impacts of the project on eastern black rails would not cause jeopardy to the species.

Alternative site 5 is addressed in section 3.3.6. The alternative analysis weighs a range of environmental impacts to determine an overall assessment of whether an alternative provides a significant environmental advantage. Although alternative site 5 seems to have an advantage for one resource (e.g., cheniers) it has other disadvantages (e.g., proximity to residences and a community center and potential for impacts on wetlands and EFH due to the requirement for a much longer feed gas pipeline that would pass entirely through wetlands and open water) that ultimately indicate the site does not provide an overall significant environmental advantage.

Section 4.8.3.1 notes the proximity of Holly Beach to the Terminal site. Alternative site 5 was eliminated from further consideration for many reasons, including but not limited to its proximity to the community center and local park.

As stated in response to CO3-10, the alternative analysis weighs a range of environmental impacts to determine an overall assessment of whether an alternative provides a significant environmental advantage. If the alternative does not provide a clear significant advantage, it is not recommended.

Co-location of the Pipeline would not share the previously existing right-of-way. It would simply abut the previously existing right-of-way and would therefore still require new right-of-way. However, as noted in section 3.8.5, the proposed route contains only herbaceous vegetation, and therefore would cause mainly temporary impacts. In addition, Commonwealth would restore the full construction right-of-way to pre-construction conditions. Furthermore, because this would be a Section 3 pipeline, there is no eminent domain process; therefore, the proposed route would depend on the willingness of the landowners whose land the pipeline would cross. Commonwealth has obtained all easements for the pipeline right-of-way.

Non-Governmental Organizations

CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022

DEIS points to the increase in pipeline length, and the fact that it would increase temporary (but not permanent) impacts to wetlands by 0.03 miles. DEIS 3-49. The DEIS fails to explain why these drawbacks are not de minimus, especially in light of the drastic reduction in new right-of-way, and the DEIS fails to grapple with Louisiana Department of Wildlife and Fisheries' reasons for recommending this route or to explain FERC's disagreement therewith.

The DEIS also apparently erred by separating its discussion of alternative pipeline routes from discussion of alternatives to ancillary aboveground pipeline facilities, including two interconnection facilities at the Kinetica and Bridgeline pipelines, one pig launcher, and one-meter station.¹⁹ The DEIS states that no alternative sites for these facilities were identified. DEIS 3-49. Adopting an alternative pipeline route would generally require moving these facilities, *see* DEIS 3-47 (map of alternative routes), but it is unclear whether aboveground facilities were included in the analysis of alternative pipeline routes.

III. Greenhouse Gas Emissions

As courts have repeatedly held, FERC must take a hard look at the project's greenhouse gas (GHG) emissions, including reasonably foreseeable indirect effects. As with other LNG projects, here, FERC continues to take an unlawfully narrow view of the scope of greenhouse gas emissions FERC must consider, refusing to provide any discussion or analysis of the impact of producing, transporting, or using the gas that would be exported by the Commonwealth project. But even for those emissions that FERC admits are within its scope, FERC unlawfully refuses to provide the public or decisionmakers with the required analysis of the significance, severity, or impact of those emissions. FERC also fails to justify rejection of alternatives that would reduce direct emissions using carbon capture and sequestration. And finally, FERC's analysis of direct emissions is further flawed by FERC's continued reliance on outdated estimates of the impact of methane and other greenhouse gases other than carbon dioxide.

¹⁹ DEIS at 3-49; *see also* DEIS 2-4 (map of these facilities).

CO3-16

CO3-16

See response to comment CO3-15.

CO3-17

CO3-17

As noted in section 3.9, the locations of the aboveground facilities would, by necessity, be constructed at the intersections of the proposed Pipeline and the Kinetica and Bridgeline pipelines, which would occur in wetlands habitat for all of the proposed alternatives. The impacts of the aboveground facilities were included in the assessments of acreages potentially impacted by the pipelines.

Comments in this introductory text are addressed individually below.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
A. Indirect GHG Emissions			
<p>The Department of Energy has estimated that liquefaction accounts for only 6% of the lifecycle greenhouse gas (GHG) emissions of U.S. LNG exports.²⁰ Even this 6% number is too high, because DOE underestimates non-liquefaction emissions.²¹ But while indirect, upstream and downstream greenhouse gas emissions constitute the vast majority of emissions that be caused by the Commonwealth LNG project if it enters operation, the DEIS refuses to analyze these emissions. Instead, the DEIS states that “because the authority to authorize LNG exports rests with DOE, NEPA does not require the Commission to consider upstream or downstream GHG emissions that may be indirect effects of the export itself,” DEIS 4-363, citing the D.C. Circuit’s decision in <i>Sierra Club v. FERC</i>, 827 F.3d 36 (D.C. Cir. 2016) (“<i>Freeport</i>”). We join the position taken by EPA, in its recent comments on FERC’s draft greenhouse gas policy, that <i>Freeport</i> was simply wrongly decided.²² But even so long as <i>Freeport</i> remains binding law, FERC is <i>still</i> required to consider indirect emissions, both because this analysis informs FERC’s decisionmaking regarding emissions that <i>are</i> within FERC’s control, and because NEPA and the Natural Gas Act do not permit FERC to segment its action from DOE’s—both issues not addressed by <i>Freeport</i>. And, as EPA recognizes, even if FERC was not <i>required</i> to do so, nothing in <i>Freeport</i> would <i>prohibit</i> FERC from including this information in the NEPA analysis. FERC should do so to provide important information to the public and to cooperating agency decisionmakers.</p>		CO3-18	
		CO3-19	
<hr/>			
<p>²⁰ National Energy Technology Laboratory, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update, at 23 (Sept. 12, 2019), available at https://www.energy.gov/sites/prod/files/2019/09/f66/2019%20NETL%20LCA-GHG%20Report.pdf. DOE estimates that 23% of the lifecycle emissions occur upstream of liquefaction. <i>Id.</i></p>			
<p>²¹ See Sierra Club, Comment on Life Cycle Update, at 6–9 (Oct. 21, 2019), available at https://fossil.energy.gov/app/DocketIndex/docket/DownloadFile/604. For example, recent research demonstrates that Permian Basin gas production emits far more methane than assumed in DOE’s analysis. <i>E.g.</i>, Yuzhong Zhang <i>et al.</i>, <i>Quantifying methane emissions from the largest oil-producing basin in the United States from space</i>, SCIENCE ADVANCES (Apr. 22, 2020), DOI: 10.1126/sciadv.aaz5120 (estimating a methane “leak rate” in the Permian of 3.5 to 3.7%), available at https://advances.sciencemag.org/content/6/17/eaaz5120/tab-pdf.</p>			
<p>²² EPA, Comments in Dkt. PL21-3, at pdf page 6, Accession 20220425-5440.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 16 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
1. Freeport Was Wrongly Decided			
<p>In <i>Freeport</i>, the D.C. Circuit started with the premise that Congress, through the Natural Gas Act, vested all section 3 authority in DOE. <i>Freeport</i>, 827 F.3d at 40 (citing 15 U.S.C. § 717b and 42 U.S.C. § 7151(b)). <i>Freeport</i> explained that it is only due to a delegation from DOE that FERC exercises section 3(e) authority over the siting, construction, and operation of LNG export infrastructure. <i>Id.</i> at 40-41 (quoting U.S. Department of Energy, Delegation Order No. 00-004.00A, § 1.21.A (May 16, 2006)). <i>Freeport</i> then reasoned that this delegation was “limited,” and reserved to DOE “exclusiv[e]” authority over exports themselves. <i>Id.</i> at 41, 46. <i>Freeport</i> held that DOE’s exclusive authority over exports included authority to consider the effects of removing gas from U.S. markets (including the fact that gas producers would likely increase supply in response to this demand) and of providing gas to overseas customers (including the end use of the exported gas). <i>Id.</i> at 48-49.</p> <p>EPA recently explained that it views <i>Freeport</i> as wrongly decided. EPA explained that:</p> <p>EPA does not agree with the court’s reasoning that the Department of Energy’s authority over export licenses breaks the “causal chain” for NEPA purposes. Given the reasonably close causal relationship between upstream and downstream emissions and the Commission’s authorization role under the NGA for section 3 projects, the Commission should explicitly decline to adopt the D.C. Circuit’s reasoning.²³</p> <p>We agree, and FERC should seek to have <i>Freeport</i> clarified or overruled. One, there is no reason to view DOE’s authorization as an intervening between FERC’s authorization and upstream effects. FERC’s authorization of export infrastructure could just as easily be seen as an intervening cause that separates upstream effects from DOE’s approval. Indeed, DOE recently suggested this opposite view of the sequence of the causal chain, when DOE proposed its now-final rule to categorically exclude DOE’s export approvals from NEPA review. There, DOE indicated that DOE’s approvals were not reasonably closely connected to anything happening at the terminal or upstream thereof. DOE, Proposed Rule, 85 Fed. Reg. at 25,341 (claiming that</p>		CO3-20	Comment noted.
		CO3-20	
<p>²³ EPA, Comments in Dkt. PL21-3, at pdf page 6, Accession 20220425-5440.</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 17</i> <i>May 23, 2022</i></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>DOE has “no authority to prevent” “impacts resulting from actions occurring [before] the point of export.”), <i>accord</i> Final Rule, 85 Fed. Reg. 78,197, 78,198.</p> <p>Two, more importantly, <i>Freeport</i> did not justify the premise that DOE’s authority was exclusive. In <i>Freeport</i>, the court did not identify any statutory reason why DOE’s authority must be exclusive, such that DOE’s delegation to FERC had to be limited. Congress, for its part, explicitly granted DOE broad authority to “assign” Natural Gas Act section 3 authority to FERC, 42 U.S.C. § 7173(f). Nor did <i>Freeport</i> justify its assumption that DOE actually intended or attempted only a limited delegation that reserved issues to DOE exclusively. DOE broadly assigned to FERC authority to “Implement section 3 of the Natural Gas Act with respect to decisions on cases assigned to the Commission by rule,” and in particular, to “[a]pprove or disapprove” the siting, construction, and operation of section 3 facilities, and to issue orders necessary or appropriate to implement that delegated authority;²⁴ <i>Freeport</i>’s assertions that DOE retained exclusive authority do not cite any text in the delegation order, or anywhere else. And finally, even if DOE had in fact attempted the limited delegation assumed by <i>Freeport</i>, such an agency attempt could not circumvent the statutory commands, in NEPA and in the Natural Gas Act, to consider the big picture. <i>Public Citizen</i> held that agency need not consider effects where a statute puts the effect beyond the agency’s reach. Other courts have explained that agencies cannot tie their own hands and cabin the scope of NEPA review through regulations. <i>Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.</i>, 538 F.3d 1172, 1213 (9th Cir. 2008) (quoting <i>Sierra Club v. Mainella</i>, 459 F.Supp.2d 76, 105 (D.D.C. 2006)). DOE cannot prevent the required comprehensive review of LNG exports by partitioning authority between it and FERC.</p> <p>And three, <i>Freeport</i>, by its own admission, did not consider the Natural Gas Act’s requirement that FERC act as lead agency for, inter alia, coordination of interagency NEPA review, 15 U.S.C. § 717n(b), or NEPA’s requirement that agencies avoid segmentation and consider “connected” actions. 827 F.3d at 45-46. But courts must interpret statutes as a whole, and <i>Freeport</i>’s refusal to consider these aspects of the Natural Gas Act and NEPA undermined</p>		CO3-21	
<p>²⁴ DOE, Delegation Order S1-DEL-FERC-2006 (superseding Delegation Order No. 00-004.00A) at 1.14, 1.21, available at https://www.directives.doe.gov/delegations-documents/S1-DEL-FERC-2006 and attached.</p>		CO3-22	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 18 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022		
<p><i>Freeport's</i> conclusions regarding FERC's Natural Gas Act authority and NEPA obligations. Indeed, DOE and FERC's apparent post-<i>Freeport</i> confusion and disagreement about where one agency's authority ends and another begins demonstrates that attempting to draw a sharp line between the agencies' authorities is unworkable.</p> <p>Thus, we agree with the EPA that <i>Freeport</i> and subsequent cases erred in holding that there was not a reasonably close causal chain linking FERC's approval of export infrastructure to the production and use of exported gas, and that FERC therefore could omit such lifecycle effects from NEPA review.</p> <p>2. Even under <i>Freeport</i>, FERC Must Consider Lifecycle Impacts to Inform both FERC's Analysis of Impacts Within FERC's Jurisdiction and DOE's Connected Decisionmaking</p> <p>Of course, we do not contend that FERC can disregard D.C. Circuit cases that have not been overruled. But even under <i>Freeport</i> and its conclusion that FERC "ha[s] no legal authority to prevent" the upstream or downstream consequences of operation of this pipeline based on a determination that those consequences (on their own or in combination with other adverse effects) outweigh the benefits of the project, <i>Sabal Trail</i>, 867 F.3d at 1373, FERC still must conduct a NEPA analysis of those foreseeable indirect effects. Such analysis would be "useful[] ... to the decisionmaking process", and thus consistent with the "rule of reason" used in interpreting NEPA, <i>Dep't of Transp. v. Pub. Citizen</i>, 541 U.S. 752, 767 (2004), for two reasons. It would inform FERC's decisionmaking about whether to require additional mitigation or avoidance of direct effects at the terminal site, pursuant to 15 U.S.C. § 717b(c)(3)(A). In addition, DOE's evaluation of Commonwealth LNG's exports is a connected action that cannot be segmented from FERC's review of the terminal project, and FERC, as lead agency, must inform DOE's decisionmaking as well.</p> <p>First, FERC might conclude that project infrastructure would not directly cause individually significant impacts, but that impacts rise to significance when combined with the indirect effects of the DOE's connected authorization. <i>See Del. Riverkeeper</i>, 753 F.3d at 1314. This combined significance may persuade FERC to require additional mitigation of direct impacts, such as by requiring more efficient terminal design or carbon capture and sequestration.</p>	CO3-22			
		CO3-23	CO3-23	Comment noted.
	Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 19 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>Thus, information about indirect effects informs FERC’s decisionmaking, notwithstanding FERC’s lack of “authority to prevent” those effects. <i>Freeport</i>, 827 F.3d at 49.</p> <p>Second, the agencies and public would benefit from comprehensive analysis of the impacts of all related projects. Specifically regarding the connection between FERC and DOE, <i>Freeport</i> explicitly declined to consider whether the prohibition on segmentation, or FERC’s Natural Gas Act obligation to act as lead agency, required FERC to consider upstream and downstream effects in the NEPA analysis. 827 F.3d at 45. Nor has the D.C. Circuit addressed these questions in any other case. The reasoning of these cases does not support an exception to the prohibition on segmentation here. <i>Freeport</i> rests on <i>Department of Transportation v. Public Citizen</i>, which affirmed a “rule of reason” under which an EIS only needs to include information “useful[] . . . to the decisionmaking process.” 541 U.S. 752, 767 (2004). The prohibition on segmentation recognizes the usefulness of a “comprehensive approach,” <i>Del. Riverkeeper</i>, 753 F.3d at 1314, rather than dividing analysis of an “integrated project” across multiple documents and processes. <i>City of Boston Delegation v. FERC</i>, 897 F.3d 241, 251-52 (D.C. Cir. 2018) (“<i>City of Boston</i>”). Here, comprehensive analysis in a single EIS would inform each agency’s decisionmaking regarding matters squarely within its own jurisdiction.</p> <p>In other proceedings, FERC has argued that segmentation caselaw, connected action regulation, <i>etc.</i>, do not apply to actions of multiple agencies. The D.C. Circuit, in one of the cases that developed the segmentation doctrine that was later codified in the 1978 NEPA regulations, has explicitly rejected this, holding that “the principles” of the prohibition on segmentation “are entirely applicable . . . where decision-making is accomplished by three federal agencies . . . acting seriatim.” <i>Jones v. D.C. Redevelopment Land Agency</i>, 499 F.2d 502, 510 (D.C. Cir. 1974); <i>see also Sierra Club v. U.S. Army Corps of Engineers</i>, 803 F.3d 31, 49-51 (D.C. Cir. 2015) (assuming that the connected actions regulation applies to actions of multiple agencies).</p> <p>For these reasons, even if <i>Freeport</i> is not overruled, FERC is still required to consider indirect effects, both to inform FERC’s own decisionmaking regarding the cumulative impact of matters that FERC <i>does</i> have authority to regulate, and to inform DOT’s consideration of the connected, interdependent proposal to export the gas liquefied at the terminal.</p>		CO3-23	
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		CO3-24	CO3-24 Comment noted.
Page 20 May 23, 2022			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>And finally, even if FERC is correct that it is not <i>required</i> to analyze lifecycle emissions in its NEPA analysis, nothing in <i>Freeport</i> or the related D.C. Circuit decisions <i>prohibits</i> FERC from doing so, as EPA observes.²⁵ Providing discussion and analysis of what EPA agreed are “these patently foreseeable environmental impacts” in FERC’s NEPA analysis will undoubtedly help inform both the public and other agencies of the big picture, and FERC should choose to provide this analysis here.</p>		CO3-24	
<p>B. Direct GHG Emissions</p> <p>The DEIS estimates that, even within the unlawfully narrow scope of emissions that FERC admits it must consider, operation of the Commonwealth LNG project will result in nearly four million tons per year of carbon dioxide equivalent (CO₂e). DEIS at 4-362. The DEIS’s refusal to provide any analysis or express any judgment regarding the severity or significance of those impacts is arbitrary. FERC also failed to take a hard look at reducing these emissions through carbon capture and sequestration (“CCS”), or even to explain whether or not FERC agreed with Commonwealth’s assertion that CCS was infeasible here. And FERC once again relies on long-ago superseded estimates of the global warming potential of many greenhouse gases.</p>		CO3-25	CO3-25
<p>1. The DEIS Fails to Evaluate the Severity, Significance, or Impact of GHG Emissions</p> <p>NEPA and the Natural Gas Act require that FERC take a hard look at the impact of greenhouse gas emissions, evaluate their significance and impact, and ultimately, to factor these emissions into FERC’s public interest determination. <i>Sierra Club v. FERC</i>, 867 F.3d 1357, 1376 (D.C. Cir. 2017) (“<i>Sabal Trail</i>”). But here, FERC explicitly refuses to provide these analyses. The DEIS repeatedly asserts that FERC will not “characterize[e] the Project’s GHG emissions as significant or insignificant because the Commission is conducting a generic proceeding to determine whether and how the Commission will conduct significance determinations going forward.” DEIS at ES-10-11, 4-355, 4-363, 5-385. But an aspiration to comply with the law</p>		CO3-26	CO3-26
<p>²⁵ EPA, Comments in Dkt. PL21-3, at pdf page 6, Accession 20220425-5440.</p>			Construction and operational greenhouse gas (GHG) emissions were calculated as CO ₂ e in section 4.11.1 of the EIS. The CO ₂ e takes into account the global warming potential (GWP) of each GHG. CO ₂ has a GWP of 1, methane has a GWP of 25, and nitrous oxide has a GWP of 298. These GWPs are based on a 100-year time period. We have selected their use over other published GWPs for other timeframes because these are the GWPs the EPA has established for reporting of GHG emissions and air permitting requirements. This allows for a consistent comparison with these regulatory requirements.
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		<p>Page 21 May 23, 2022</p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>when reviewing unrelated future projects is not an excuse for failing to comply with the law now.</p> <p>If FERC is uncomfortable with or unwilling to apply the interim/draft policy, there are, of course, other ways to assess significance. One of those remains the social cost of greenhouse gases. In the DEIS, FERC makes no mention of this tool. Elsewhere, FERC has “not[ed] the pending litigation challenging federal agencies’ use” of the tool.²⁶ However, the Fifth Circuit has explicitly permitted agencies to use this tool pending resolution of this litigation, staying the injunction that was previously entered, <i>Louisiana by & through Landry v. Biden</i>, No. 22-30087, 2022 WL 866282 (5th Cir. Mar. 16, 2022), and ultimately, these legal challenges are likely to fail. The unlikely possibility of a future adverse ruling in this litigation is not an excuse for not complying with the cases that have already been decided and that require FERC to do more.</p> <p>Alternatively, FERC has argued that “it has not determined which, if any, modifications are needed to render [social cost of greenhouse gases] useful for project-level analyses.”²⁷ FERC does not claim to have actually concluded that the tool is inappropriate for project-level analysis. And again, FERC’s suggestion that it will do better next time does not justify its decision to not use the available tools for <i>this</i> Project. Sierra Club contends that the social cost of greenhouse gases is an appropriate tool for project level analysis, and as FERC has recognized, other agencies in fact use this tool in project-specific reviews.²⁸ And while CEQ is working “to review, revise, and update its 2016” GHG guidance, CEQ has encouraged agencies to comply with the 2016 guidance pending revision.²⁹ The 2016 GHG Guidance identifies social cost of carbon as “a harmonized, interagency metric that can give decision makers and the public useful</p>		CO3-27	
<p>²⁶ <i>Evangeline Pass Expansion Project</i>, 178 FERC ¶ 61,199 P92 (Mar. 25, 2022).</p> <p>²⁷ <i>Evangeline Pass Expansion Project</i>, 178 FERC ¶ 61,199 P92 n. 141 (Mar. 25, 2022).</p> <p>²⁸ <i>See Mountain Valley Pipeline, LLC Equitrans, L.P.</i>, 163 FERC ¶ 61,197 P281 n.772 (2018) (recognizing that BOEM, OSM, DOE, and numerous state agencies have used social cost of carbon in environmental review of individual projects). In that order, FERC suggested that greenhouse gas emissions were primarily a problem for agencies that regulate production or use of fossil fuels. But the direct emissions at issue here are exactly that: emissions that result from use of fossil fuels in FERC-jurisdictional compressor stations and other facilities.</p> <p>²⁹ <i>See Accession 20210527-5009</i>.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 22 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>information for their NEPA review.”³⁰ FERC has not identified any CEQ statement stating that social cost of GHGs is, or may be, inappropriate for project-specific review. If FERC actually believes social cost of GHGs is inappropriate for project-specific review, FERC can articulate that position in the record and in its NEPA review. But FERC cannot conclude that the project is in the public interest and thereby approve the project while refusing to provide decisionmakers and the public with the analysis and conclusions that are the required predicates for that approval, including NEPA and Natural Gas Act analysis of greenhouse gas emissions.</p>		CO3-28	
<p>Finally, FERC’s comparison of direct project emissions with emissions of the United States or Louisiana is not, and does not purport to be, an analysis of significance or of the impact of emissions on the public interest. DEIS at 4-363. Observing that emissions here are a small portion of regional or national totals does not illustrate their impact. <i>Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.</i>, 538 F.3d 1172, 1217 (9th Cir. 2008). Even a “very small portion” of a “gargantuan source of ... pollution” may “constitute[] a gargantuan source of ... pollution on its own terms.” <i>Sw. Elec. Power Co. v. EPA</i>, 920 F.3d 999, 1032 (5th Cir. 2019). Furthermore, the DEIS’s analysis of GHG emissions emphasizes the significance of the Project’s contribution to Louisiana’s projected GHG emissions levels and its net-zero GHG emissions by 2050 target. DEIS at 4-363. Direct emissions from the operation of the Commonwealth Project would result in CO₂e emissions of about 3,728,015 tpy, which would represent 2.3 percent and 3.3 percent of Louisiana’s 2025 and 2030 projected GHG emission levels. <i>Id.</i> Given the lifespan of this project, its contributions to state GHG emissions would only grow over the remaining years.</p>		CO3-29	
<p>The DEIS has not presented evidence that there is no information or methodology FERC could use to evaluate the significance and impact of greenhouse gases—only that FERC hasn’t yet decided how to use the available information and tools. But if FERC were to argue that information was unavailable, FERC would be in the same position recently considered by the D.C. Circuit in <i>Vectnos</i>. FERC would need to address whether the Interagency Working Group’s estimates of social cost of greenhouse gases are “generally accepted in the scientific community”</p>		CO3-30	
<p>³⁰ https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf at 33 n.86.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 23 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
(they are) and if so employ this tool, or use some other generally accepted method. 40 C.F.R. § 1502.21(c)(4); <i>Vecinos</i> , 6 F.4th at 1329.		CO3-30	
2. Carbon Capture and Sequestration			
NEPA requires FERC to take a hard look at opportunities to mitigate impacts, including greenhouse gas emissions. The Natural Gas Act similarly requires FERC to determine whether modifications to the proposed project would better serve the public interest. Here, one way to mitigate greenhouse gas emissions would be to use a more efficient facility design to avoid emissions in the first place, as discussed above. But another way to mitigate emissions (which can be used in addition to or instead of design alternatives) is carbon capture and sequestration, as applied to all or part of the terminal emissions. Although there are serious questions about the appropriateness of carbon capture and sequestration, the DEIS fails to grapple with those questions, and falls far short of NEPA’s requirements.			
To be clear on one threshold issue: FERC has the authority to require project modifications that would reduce greenhouse gas emissions, including carbon capture and sequestration, regardless of the fact that “ <i>Commonwealth has not proposed to implement carbon capture technologies.</i> ” DEIS 4-364 (emphasis added). To inform FERC’s decisionmaking regarding whether, and if so to what extent, exercise that authority and to require carbon capture, NEPA requires that FERC rigorously explore alternatives that would incorporate this technology, regardless of whether Commonwealth chooses to propose it.		CO3-31	
The DEIS entirely fails to explain whether <i>FERC</i> believes that carbon capture and sequestration is economically and technologically feasible here, and if so, whether it would be environmentally beneficial and appropriate. The DEIS notes that <i>Commonwealth</i> takes the position that carbon capture and sequestration is infeasible, DEIS at 4-363 to -364, but as the DEIS notes, Commonwealth’s position is in clear tension with the fact that other LNG facilities that <i>have</i> proposed CCS. Inexplicably, the DEIS makes no attempt whatsoever to resolve this tension.		CO3-32	
In particular, the DEIS does not indicate whether it agrees with Commonwealth’s assertion that CCS is technically infeasible. The DEIS summarizes a 2017 DOE report (itself			
<i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i>		Page 24	
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,			
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>cited by Commonwealth) as concluding that CCS for natural gas systems “ha[s] been proven technically feasible.” DEIS 4-364.³¹ Commonwealth apparently concedes that as a general matter, but contends that CCS is nonetheless technically infeasible for this particular project, “primarily due to a lack of sequestration infrastructure.” DEIS 4-364. The DEIS does not provide any facts to support this assertion. It does not explain why available infrastructure is insufficient; how the infrastructure at this site differs from that available to nearby facilities, such as Venture Global CP2, that <i>do</i> propose CCS; or (insofar as additional infrastructure is in fact needed) what it would take to provide that infrastructure. Accordingly, while it is unclear whether FERC agrees with Commonwealth’s assertion that CCS is technically infeasible, it is clear that FERC <i>shouldn’t</i>, and that the DEIS does not support Commonwealth’s assertion.</p>		CO3-33	
<p>As to economic feasibility, although DOE’s 2017 report asserted that “carbon capture technologies appropriate for natural gas systems ... are too expensive to deploy <i>across the energy sector</i>,” that assertion did not entail the conclusion that CCS is too expensive to deploy <i>at any particular LNG facility</i>, especially as such facilities face very different economics than power plants.³² And now, five years after DOE’s report, multiple other LNG facilities have proposed CCS, indicating that CCS is <i>not</i> economically infeasible for LNG terminals, at least in all instances. But the DEIS offers no explanation as to why a mitigation strategy that is affordable for other facilities is impossible for this project.</p>		CO3-34	
<p>³¹ See DEIS H-13 (citing U.S. DOE, Carbon Capture Opportunities for Natural Gas Fired Power Systems (2017)). The URL provided in the DEIS, https://www.energy.gov/feem/downloads/carbon-capture-opportunities-natural-gas-fired-power-systems, was not publicly accessible at the time of this writing. It appears that the same document is also available at https://www.energy.gov/sites/prod/files/2017/01/f34/Carbon%20Capture%20Opportunities%20for%20Natural%20Gas%20Fired%20Power%20Systems_0.pdf and attached.</p>			
<p>³² The DEIS repeats DOE’s 2017 assertion, untethered from actual dollar amounts, that the “capital and operating costs” of CCS for gas facilities “are too expensive when compared to the limited revenue generating applications for captured CO2 that are currently available.” DEIS 4-364. Again, to be clear, FERC can require CCS even if CCS itself is unprofitable, or even quite costly, just as FERC requires other expenses aimed at reducing environmental impacts. Here, FERC provides no analysis of how much, on net, it would cost to reduce each ton of greenhouse gas emissions, nor any discussion of whether those costs would be warranted. And whatever the costs were in 2017, other facilities have found the costs to be bearable now.</p>			
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 25	May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>Finally, even if FERC were to conclude, on the basis of some future NEPA analysis, that it was infeasible to capture <i>combustion</i> emissions from the Commonwealth facility, FERC would need to consider capture and sequestration of <i>pretreatment</i> emissions. From an engineering and economic perspective, much of the hard part of carbon capture is isolating carbon dioxide. But here, as with other LNG facilities, Commonwealth already proposes an amine-based absorber system that is essentially equivalent to that used for carbon capture, used here as part of pipeline pretreatment. DEIS 4-236. Pretreatment produces a nearly-pure CO₂ stream that is amenable to capture, and capturing these emission does not require many of the added capital and operating expenses that DOE suggested were unbearable in 2017. DOE’s 2017 report did not consider this issue.</p> <p>In summary, the DEIS fails to even take a position as to whether some level of CCS would be feasible for the Commonwealth project. And while the undersigned contend that the project would be contrary to the public interest with or without CCS and should be denied, our position is that if FERC does approve the project, FERC must ensure that adverse impacts are reduced as much as possible. This requires a rigorous exploration of whether CCS is feasible here, including whether carbon can safely be sequestered in this region. If CCS is feasible, FERC must explore whether the benefits of CCS outweigh the potential drawbacks, such the impact of increased water intake and discharge.³³ These are serious questions, but the DEIS does not even attempt to answer them, and as such, the DEIS falls short of what NEPA requires.</p>	CO3-35	CO3-35	See response to comment CO3-25.
<p>3. The DEIS Uses Outdated Global Warming Potentials That Understate the Impact of GHG Emissions</p> <p>The figures provided in the DEIS underestimate emissions by using outdated estimates of the potency of greenhouse gases (GHGs) other than carbon dioxide. The DEIS addresses these other GHGs by converting them to CO₂e. DEIS 4-189. However, the conversion factor (global</p>	CO3-36	CO3-36	See response to comment CO3-25.
<p>3. The DEIS Uses Outdated Global Warming Potentials That Understate the Impact of GHG Emissions</p> <p>The figures provided in the DEIS underestimate emissions by using outdated estimates of the potency of greenhouse gases (GHGs) other than carbon dioxide. The DEIS addresses these other GHGs by converting them to CO₂e. DEIS 4-189. However, the conversion factor (global</p>	CO3-37	CO3-37	See response to comment CO3-26.
<p>³³ National Energy Technology Laboratory, <i>Cost and Performance Baseline for Fossil Fuel Energy Plants Vol. 1: Bituminous Coal and Natural Gas to Electricity</i>, NETL-PUB-22638, at 527 (Sept. 24, 2019) (hereinafter “NETL 2019”) (estimating that 90% capture at a combined cycle gas plant increases water intake by 60% and water discharge by more than 150%), available at https://netl.doe.gov/projects/files/CostAndPerformanceBaselineForFossilEnergyPlantsVol1BitumCoalAndNGtoElectBBRRev4-1_092419.pdf and attached.</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Page 26 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network May 23, 2022</p>			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>warning potential or GWP) used for methane, the predominant non-carbon-dioxide greenhouse gas at issue here, is sorely outdated, and fails to account for short- and medium-term impacts. The DEIS uses a GWP value of 25 for methane (CH₄). <i>Id.</i> Although the DEIS provides no explanation for either the source of this number or FERC’s reason for choosing it, the figure corresponds with the value presented by the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report in 2007 to reflect the impact of methane on a hundred-year timescale. In August 2021, eight months prior to the publication of this DEIS, IPCC released its Sixth Assessment Report, which includes superseding and significantly higher estimates for the GWP of methane, as well as provides a distinction between CH₄ from fossil fuels and CH₄ from other sources.³⁴ This report also explained that on a 20-year timeframe, methane’s impact is even more severe, causing 82.5 times the warming of an equivalent mass of carbon dioxide (also accounting for the effects of oxidation). <i>Id.</i> The 20-year GWP for methane is particularly relevant because it corresponds much more closely to the average time that methane actually remains in the atmosphere before decaying into CO₂, which is 11.8 years. <i>Id.</i> There is no dispute that the Sixth Assessment Report values represent a more accurate estimate of the impact of each ton of methane emissions.³⁵</p>		CO3-37	
<p>More broadly, courts have consistently recognized that the IPCC summaries represent the scientific consensus.³⁶ Here, the DEIS violates NEPA’s obligation to use “high quality</p>		CO3-38	
<p>³⁴ IPCC, Climate Change 2021, The Physical Science Basis, Chapter 7, 1017 (Aug. 2021), available at https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07.pdf and attached.</p> <p>³⁵ See Department of Energy, Order 3357-C, FE Docket 11-161-LNG, at 30 (Dec. 4, 2015), available at https://www.energy.gov/sites/prod/files/2013/11/FS/FE%20DOCKET%20NO.%2011-161-LNG%20ORDER%20NO.%203357.pdf and attached; EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1-10 (Apr. 14, 2022), available at https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf.</p> <p>³⁶ <i>Massachusetts v. E.P.A.</i>, 549 U.S. 497, 508-512 (2007) (The IPCC is recognized as “a multinational scientific body ... [d]rawing on expert opinions from across the globe); <i>Coal. for Responsible Regulation, Inc. v. E.P.A.</i>, 684 F.3d 102, 119 (D.C. Cir. 2012), <i>aff’d in part, rev’d on other grounds in part sub nom. Util. Air Regulatory Grp. v. E.P.A.</i>, 134 S. Ct. 2427 (2014), and <i>amended sub nom. Coal. for Responsible Regulation, Inc. v. Envtl. Prot. Agency</i>, 606 F. App’x 6</p>		CO3-38	
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 27 May 23, 2022	

CO3-38 Comment noted. See response to comment CO3-26.

Non-Governmental Organizations

CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173

Filed Date: 05/23/2022

CO3-38

information,” 40 C.F.R. R. § 1500.1(h), and provide “full and fair discussion of significant environmental impacts,” 40 C.F.R. § 1502.1, by relying on an estimate of methane’s impacts that was known to be outdated and an understatement of the true potency of this pollutant, by failing to disclose that the analysis it provided only considered the long term (100-year) impacts, and by failing to use available tools, such as the estimate of methane’s 20-year GWP, to address more near-term impacts. Each of these failures violates NEPA. *See W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, at *16 (D. Mont. Mar. 26, 2018) (holding that agency violated NEPA by estimating emissions solely on the basis of methane GWP of 25).

IV. Other Air Pollution

In addition to emission of nearly four million tons per year of greenhouse gases, the Commonwealth LNG project will emit major volumes of criteria and hazardous air pollutants. The DEIS estimates the following operational emissions:

Operational Emissions (tons per year)							
NOx	SO ₂	CO	PM ₁₀	PM _{2.5}	VOC	CO _{2e}	HAP
655	67	1,514	239	238	163	3,728,015	109

DEIS at 4-201.

The terminal’s emissions will occur approximately two miles southwest of the town center of Cameron, Louisiana, which has a population of 6,973. DEIS at 4-157. Communities surrounding Cameron are already disproportionately exposed to significant air and water pollution from nearby facilities.

In discussing the amount and impact of air pollution, the DEIS appears to rely on analysis conducted to support Commonwealth’s proposed Part 70 Air Operating Permit and Prevention of Significant Deterioration (PSD) Permit. DEIS at 4-182.³⁷ As Sierra Club has explained in

(D.C. Cir. 2015) (IPCC’s “peer-reviewed assessments synthesized thousands of individual studies on various aspects of greenhouse gases and climate change and drew ‘overarching conclusions’ about the state of the science in this field.”).

³⁷ See also Accession 20210817-5051, Commonwealth LNG Modeling Report-2021-08-12.pdf. “To minimize duplicate efforts” FERC encourages applicants to “file a copy of analyses

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network

Page 28
May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173

Filed Date: 05/23/2022

comments submitted in those dockets, Commonwealth's analysis therein is flawed.³⁸ In summary:

- The proposed emission limits are unenforceable, and project emissions will therefore likely exceed the amounts predicted in these materials and the DEIS.³⁹ CO3-39
- The proposed permit fails to include monitoring sufficient to ensure compliance with the Clean Air Act.⁴⁰ CO3-40
- Because the modeling relies on these underestimates of emissions, the modeling fails to show that actual emissions will not cause or contribute to a violation of the NAAQS⁴¹ CO3-41
- The Best Available Control Technology Analysis is flawed, establishes limits for multiple pollutants that are deficient, and fails to consider alternative BACT designs.⁴² CO3-42

We incorporate herein the comments explaining these issues in greater detail. Because the DEIS rests on these flawed prior analyses, the DEIS fails to support its conclusion that "[t]he dispersion modeling analyses, and additional impact analyses performed demonstrated compliance with all ambient air quality standards applicable to Commonwealth LNG. The analyses showed that operation of the facility would not cause or make a significant contribution to any violation of either the NAAQS or the existing PSD increments." DEIS at 4-207.

performed under the PSD Permitting Program." FERC, *Guidance Manual for Environmental Report Preparation*, at 4-121 n. 36.

³⁸ Sierra Club Comments and Exhibits re: Commonwealth LNG LLC — Amended Comments of Sierra Club on Proposed Part 70 Air Operating Permit, Prevention of Significant Deterioration (PSD) Permit and the Associated Environmental Assessment (EAS); AI Number 221642, Permit Numbers 0560-00997-V0 and PSD-LA-841, and Activity Numbers PER20210001 and PER20210002 (Apr. 12, 2022) ("Sierra Club PSD Comments"), attached.

³⁹ *Id.* at 31.

⁴⁰ *Id.* at 32-33.

⁴¹ *Id.* at 22-25.

⁴² *Id.* at 25-31.

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network

Page 29
May 23, 2022

CO3-39	Emissions limits established by applicable air permits (such as the Title V permit) are federally enforceable and have been demonstrated to be protective of ambient air quality.
CO3-40	The Clean Air Act, as amended, regulates air emissions from stationary and mobile sources, and defines the EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone (O ₃) layer. Among other things, the law authorizes the EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and welfare, sets limits on certain air pollutants, and limits emissions of air pollutants coming from sources, such as industrial facilities. The EPA has delegated the authority to implement these regulations to the LDEQ, Air Permits Division in Louisiana. LDEQ is responsible for issuing Title V operating permits in accordance with 40 CFR 70 and as incorporated into Louisiana Administrative Code (LAC) 33:III.507 and ensuring compliance with the Clean Air Act, including the need for additional monitoring.
CO3-41	Dispersion modeling provides conservative estimates of pollutant concentrations and, as noted in the response to comment CO3-39, emissions limits established by the permit are federally enforceable and have been demonstrated to be protective of ambient air quality. See response to CO3-40.
CO3-42	The Best Available Control Technology Analysis is reviewed and approved through the air quality permitting process with the LDEQ.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
V. Wetlands			
A. The DEIS Fails to Take a Hard Look at Wetland and Chenier Impacts			
<p>The DEIS estimates that construction of the terminal and pipeline will impact 139.5 acres of wetlands, with 89.9 acres of permanent impacts.⁴³ The DEIS fails to take a hard look at the consequences of these impacts.</p> <p>Perhaps most importantly, the DEIS fails to adequately consider the cumulative impact of wetland loss in Louisiana. Wetlands are integral to Louisiana in way unlike any other state: Louisiana has 40 percent of the country's wetlands, and wetlands account for 11 percent of the state's landmass.⁴⁴ But Louisiana is losing wetlands at an exceptional rate: over 90 percent of the coastal marsh loss in the continental United States occurs in Louisiana,⁴⁵ and at the current rate of loss, Louisiana's wetlands would entirely disappear in approximately 200 years.⁴⁶ The DEIS concludes that impacts to wetlands here can be mitigated to insignificance, but this claim has been made for many other projects as well, and wetland loss persists nonetheless. Nor does the DEIS adequately address the fact that as more wetlands are lost, the state, local communities, and the environment become less and less able to tolerate further losses, relying on a diminishing acreage of wetlands to, for example, protect against storm surges,⁴⁷ or provide habitat.⁴⁸</p>			
⁴³ DEIS at 4-78 to -79.		CO3-43	
⁴⁴ Blake Donewar, <i>Saving Louisiana's Wetlands: Solving the Longstanding Environmental Crisis Through Contractual Liability</i> , Loyola Law Review (May 20, 2020), http://www.loyno-lawreview.com/2020/05/20/savinglouisianas-wetlands-solving-the-longstanding-environmental-crisis-through-contractual-liability/ .			
⁴⁵ <i>Louisiana's disappearing WETLANDS</i> , Southeastern Louisiana University, https://www2.southeastern.edu/orgs/oilspill/wetlands.html#:~:text=While%20Louisiana%20has%2040%25%20of,the%20turn%20of%20the%20century.			
⁴⁶ Blake Donewar, <i>Saving Louisiana's Wetlands: Solving the Longstanding Environmental Crisis Through Contractual Liability</i> , Loyola Law Review (May 20, 2020), http://www.loyno-lawreview.com/2020/05/20/savinglouisianas-wetlands-solving-the-longstanding-environmental-crisis-through-contractual-liability/ .			
⁴⁷ <i>Louisiana Coastal Wetland Functions and Values</i> , https://lacoast.gov/reports/rte/1997/4.htm .			
⁴⁸ <i>Louisiana Coastal Wetland Functions and Values</i> , https://lacoast.gov/reports/rte/1997/4.htm .			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 30 May 23, 2022	

CO3-43

CO3-43

Section 4.13.2.2 discusses cumulative impacts on wetlands. Section 4.4.2 discusses the Project's potential impacts on wetlands, including its proposed wetland mitigation plan. Wetland mitigation is a method to counter wetland loss that is accepted by the COE. As described in expanded text in section 4.4.2, the wetland mitigation proposed by Commonwealth would preserve wetlands consistent with the wetland types at the Project site and at a greater ratio than what would be lost through construction of the Project.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022

In addition to being yet another project contributing to cumulative wetland loss, Commonwealth would be particularly harmful because of its impacts on cheniers. The Project will be constructed in the West Gulf Coastal Plain's Louisiana Chenier Plain ("Louisiana Chenier Plain").⁴⁹ The Louisiana Chenier Plain includes marsh/swamp vegetation interspersed with sandy beach ridges, known as cheniers.⁵⁰ Chenier ridges are critically important to the environment in southwest Louisiana⁵¹ and are globally recognized as an Important Bird Area.⁵² The terminal site includes 36.9 acres of this critical habitat.⁵³ The project will permanently destroy a third of this habitat, 13.3 acres.⁵⁴ As to the other 23.6 acres, which apparently will not physically disturbed by construction, the DEIS ignores the effect of noise, light, and other impacts on this critical and sensitive habitat. The DEIS therefore fails to support its characterization of these acres as "not ... affected by project construction," and the DEIS's discussion of cheniers does not even purport to address whether these areas will be impacted by project operation.⁵⁵ The adverse impacts of noise, light, and other impacts other than physical intrusion have the potential to more than offset the benefit of Commonwealth's proposal to preserve these acres by excluding feral hogs.⁵⁶ By failing to consider this issue, the DEIS fails to support its conclusion that the potential net benefit to these 23.6 acres offsets the total loss of the other 13.3 acres.

CO3-44

⁴⁹ DEIS at 4-51.

⁵⁰ DEIS at 4-86, 4-91 (explaining that most, but not all, of the chenier areas at issue here are also wetlands.)

⁵¹ Donald E. Owen, *Geology of the Chenier Plain of Cameron Parish, southwestern Louisiana*, Geological Society of America Field Guide 14 2008 Joint Annual Meeting, Houston, Texas, 5-9 October 2008, attached.

⁵² National Audubon Society, Important Bird Areas Program, <https://www.audubon.org/important-bird-areas/state/louisiana>.

⁵³ DEIS at ES-4 and ES-5.

⁵⁴ DEIS 4-91.

⁵⁵ DEIS 4-91 (emphasis added).

⁵⁶ DEIS 4-91.

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network

Page 31
May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022				
<p>The DEIS’s analysis of the wetland impacts is conclusory and fails to explain the agency’s reasoning behind its blanket statements. For example, the DEIS states that the terminal facility will not remove surface water connections of alter the existing hydrology of the surrounding wetlands because Commonwealth will construct a stormwater culvert to direct water around the terminal site and into the Calcasieu Ship Channel.⁵⁷ This conclusion neglects impacts on subsurface flows, which are also vital to wetland hydrology.</p> <p>B. FERC Must Address Consistency with Louisiana’s Comprehensive Master Plan for a Sustainable Coast, and FERC Cannot Simply State that Louisiana Will Address This Issue in the Future</p> <p>NEPA requires FERC to take a hard look at a proposed project’s “[e]ffects that would violate Federal, State, Tribal, or local law protecting the environment.” 40 C.F.R. §1501.3(b)(2)(iv). One such law, which is particularly important for wetlands, is Louisiana’s Coastal Master Plan, adopted pursuant to the Coastal Zone Management Act. But the DEIS entirely fails to address this issue. In discussing wetlands, the DEIS notes the pertinence of the Coastal Zone Management Act, but simply states that “details on Coastal Zone Management designations, and the Coastal Use Permit, can be found in section 4.8.5.”⁵⁸ But section 4.8.5 contains no analysis, and instead simply states coastal zone issues are “currently under review” by the Louisiana Department of Natural Resources and the Corps, and that “Commonwealth would construct and operate the Project in compliance with conditions that would be set forth in the FERC authorization, the COE Section 404/10 and 408 permits, and the LDNR-OCM’s Coastal Use Permit.”⁵⁹ The DEIS therefore entirely omits the required analysis of whether the project’s effects would violate laws protecting the environment. Stating that these issues will be addressed in the future—potentially <i>after</i> FERC issues a certificate order conditioned on future findings by other agencies—fails to provide the opportunity for informed, meaningful public participation that NEPA requires.</p>	CO3-45					
<p>⁵⁷ DEIS at 4-79.</p> <p>⁵⁸ DEIS at 4-77.</p> <p>⁵⁹ DEIS at 4-156.</p>	CO3-46	CO3-46	<p>As noted in expanded text in section 4.4.1 and Appendix D, Commonwealth conducted hydrological surveys to characterize the hydrological flow of waters through the wetlands west of the Terminal site and designed the stormwater culvert accordingly to ensure surface water connections between the wetlands and the Calcasieu River would be maintained. Geotechnical surveys of the site indicate groundwater flow through the wetlands west of the Terminal site is negligible due to the high clay content of the soils. Commonwealth would consult with state and federal agencies, including the Louisiana Department of Natural Resources Office of Coastal Management (OCM), NMFS, and the COE, to confirm the final design of the structure would be appropriate to maintain the existing drainage patterns of the wetlands west of the Terminal and ingress and egress of aquatic fauna.</p>			
				<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</p> <p>Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		
		Page 32				
		May 23, 2022				

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>Punting these issues is especially inappropriate here, where evidence indicates that Commonwealth would, in fact, violate the coastal master plan. On May 29, 2020, Healthy Gulf previously submitted comments on this issue to the Corps, which we incorporate by reference here.⁶⁰ Healthy Gulf's comments stress this Project's inconsistency with the Coastal Master Plan⁶¹ because of its destruction of wetlands, which the Coastal Master Plan clearly states must be preserved.⁶² The comments also address the Project's destruction of a coastal restoration project and the Louisiana Department of Natural Resource's failure to fully weigh the costs and benefits of the Project as required by Louisiana's Constitution.⁶³ Moreover, Healthy Gulf's comments discuss the adverse impacts this Project will have on cumulative wetland loss, coastal erosion, and other impacts occasioned by the various other LNG export facilities FERC has approved and which are proposed⁶⁴ for the Calcasieu Pass and the Calcasieu River area and the Louisiana coastal zone. These comments also objected to the alternatives analysis regarding siting of the Project. Healthy Gulf's comments not only apply to the Corps but also to the DEIS as any finding by FERC in this DEIS that the Project is consistent with the Master Plan, or reliance on such a finding by other state or federal agencies, is incorrect.</p> <p>FERC cannot simply punt the wetlands portion of their environmental analysis over to other state and federal agencies.⁶⁵ In the present instance, Healthy Gulf has raised several</p>			
<p>⁶⁰ See Healthy Gulf's Comments re: MVN 2018-00250-WLL and WQC-200227-01 Commonwealth LNG and Pipeline Project ("Healthy Gulf 404 Comments"), attached.</p> <p>⁶¹ See Louisiana's Comprehensive Master Plan for a Sustainable Coast, Coastal Protection and Restoration Authority of Louisiana, available at http://coastal.la.gov/wp-content/uploads/2017/01/DRAFT-2017-Coastal-Master-Plan.pdf (last visited May 14, 2022).</p> <p>⁶² See Healthy Gulf 404 Comments.</p> <p>⁶³ <i>Id.</i></p> <p>⁶⁴ North American LNG Export Terminals – Existing, Approved not Yet Built, and Proposed, FERC, available at https://cms.ferc.gov/media/north-american-lng-export-terminals-existing-approved-not-yet-built-and-proposed-8 (April 20, 2022). The Healthy Gulf comments also explain the need for a FERC Programmatic Environmental Impact Statement (PEIS) and we urge FERC to conduct a PEIS for all of these facilities for the reasons stated therein.</p> <p>⁶⁵ See <i>Appalachian Voices</i>, 2019 WL 847199, at *1 (rejecting arguments that FERC violated the Natural Gas Act by "issuing the certificate subject to conditions precedent" because 15 U.S.C. § 717f(e) "expressly provides that FERC 'shall have the power to attach to the issuance of the</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 33</i> <i>May 23, 2022</i></p>	

CO3-47

CO3-47

See section 4.13.2.3 for a discussion of cumulative impacts on wetlands. Section 4.8.5 addresses the Project's consistency with Louisiana's Coastal Use Guidelines. The Healthy Gulf's comments regarding the Project's destruction of a coastal restoration project refer to a component of the Project that is no longer being proposed and is therefore not discussed in the EIS. Coastal erosion in the vicinity of the Project is discussed in section 4.1.5.4.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>inconsistencies between the proposed Project and the Coastal Master Plan which FERC must consider under NEPA to ensure compliance with State laws. FERC cannot conditionally issue a certificate in this instance when FERC has reason to believe that the Corps 404, 410, and 408 permits as well as the Coastal Use Permit may never or should never be issued by the reviewing agencies due to inconsistencies with state laws.</p> <p>Lastly, the DEIS should also consider the 2022 NOAA report on sea level rise of one foot being expected by 2050⁶⁶, with the new 2022 Sixth IPCC report;⁶⁷ as these show changes in the baseline and new information on climate change impacts that would impact the site itself since it is near or below sea level and located in the Gulf coast in the hurricane zone. The NOAA report discusses sea level rise which is a factor in analyzing the intensity and extent of impacts (e.g. height of waves and storm surge) and the need for mitigation (i.e. height of docks, levees, etc.) This also bears on the increasing number and severity of storms,⁶⁸ which bears on the project design and the need to preserve wetlands as storm buffers and for flood control, which are critical wetlands functions the DEIS overlooks or ignores.⁶⁹</p> <p>certificate and to the exercise of rights granted thereunder such reasonable terms and conditions as the public convenience and necessity may require.”); <i>Del. Riverkeeper Network v. FERC</i>, 857 F.3d 388, 399 (D.C. Cir. 2017) (upholding Commission’s approval of a natural gas project conditioned on securing state certification under Section 401 of the Clean Water Act); <i>Myersville Citizens for a Rural Cmty. v. FERC</i>, 783 F.3d 1301, 1320-21 (D.C. Cir. 2015) (upholding the Commission’s conditional approval of a natural gas facility where the Commission conditioned its approval on the applicant securing a required Clean Air Act permit from the state); <i>Pub. Utils. Comm’n of Cal. v. FERC</i>, 900 F.2d 269, 282 (D.C. Cir. 1990) (Commission did not violate NEPA by issuing a certificate conditioned upon the completion of the environmental analysis.).</p> <p>⁶⁶ See <i>U.S. coastline to see up to a foot of sea level rise by 2050</i>, NOAA, available at https://www.noaa.gov/news-release/us-coastline-to-see-up-to-foot-of-sea-level-rise-by-2050 (Feb. 15, 2022); see e.g., NOAA, <i>Global and Regional Sea Level Rise Scenarios for the United States</i> (Feb. 2022), available at https://aambpublicoceanservice.blob.core.windows.net/oceanserviceprod/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf and attached.</p> <p>⁶⁷ See ipcc.ch/report/ar6/wg2/.</p> <p>⁶⁸ See Healthy Gulf 404 Comments, at p. 7 and n.13.</p> <p>⁶⁹ The DEIS fails to consider the value and function of wetlands in protection from storm surges and flooding and whether and how the mitigation in this case would address the loss of this at the Commonwealth site. This failure renders the impacts analysis insufficient as these functions are</p>	CO3-48	CO3-48	Comment noted.
	CO3-49	CO3-49	The 2022 NOAA report is considered in section 4.3.2.2. The sea level rise viewer associated with the noted report indicates the risk of sea level rise of 1 foot at the Terminal site would consist of coastal high tide flooding near the west side of the Terminal through the existing low-lying areas comprising the wetlands to the west of the Terminal site. The risk of flooding from sea level rise of 1 foot would not appear to originate from the shoreline due south of the Terminal or from the Calcasieu River to the east. The design of the Project relative to the impacts of sea level rise and tropical storms is also discussed in section 4.12.1.5.
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 34 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>C. The DEIS Fails to Provide Any Details Regarding Proposed Wetland Mitigation Banking, and Thereby Fails to Provide for Meaningful Public Participation</p>			
<p>The DEIS asserts that impacts to wetlands “would be reduced to less-than-significant levels based on Commonwealth’s proposed mitigation.”⁷⁰ This mitigation purportedly consists of “purchase of wetland mitigation bank credits.”⁷¹ But the DEIS does not provide <i>any</i> details about this mitigation: nothing about the amount, type, or location of wetland credits that will be acquired. This complete lack of specific information prevents the public from meaningfully commenting on the project or the adequacy of mitigation.</p> <p>Again, this is not an issue that FERC can punt to another agency. The DEIS states calculations regarding wetland mitigation “were still under review by the [Army Corps of Engineers] at the time of the writing of this draft EIS.”⁷² The fact that the Corps has not finalized a decision is no reason to withhold this information. To the contrary, one of the points of NEPA</p>		CO3-50	CO3-50
<p>well established. See, e.g., <i>Louisiana’s Comprehensive Master Plan for a Sustainable Coast</i>, Coastal Protection and Restoration Authority of Louisiana, available at http://coastal.la.gov/wp-content/uploads/2017/01/DRAFT-2017-Coastal-Master-Plan.pdf (last visited May 14, 2022); see also <i>Wetlands: Protecting Life and Property from Flooding</i>, EPA, available at https://www.epa.gov/sites/default/files/2016-02/documents/flooding.pdf (May 2006); see also <i>Incorporating Wetland Restoration and Protection into Planning Documents</i>, EPA, available at https://www.epa.gov/wetlands/incorporating-wetland-restoration-and-protection-planning-documents; see also, Shepard et al., <i>The Protective role of Coastal Marshes: A Systemic Review and Meta-analysis</i>, PLOS ONE, available at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027374 (Nov. 23, 2011) (discussing three ecosystem services associated with coastal wetlands: <i>wave attenuation, shoreline stabilization, and floodwater attenuation</i>).</p> <p>⁷⁰ DEIS at 4-80. FERC’s February 18, 2022, Environmental Information Request inquired into Commonwealth’s dredged material disposal locations, but it did not inquire into whether BUDM is the appropriate mitigation for the wetlands loss in this project or into any alternative mitigation such as banking. Likewise, Commonwealth’s February 28, 2022 response discusses BUDM as an alternative method of dredged material disposal and its location, but does not address why it was or should be the chosen method for wetlands mitigation or its adequacy in this case. The Environmental Information Request does not provide any NEPA analysis of the impacts of on the wetlands loss or the sufficiency of BUDM or banking as mitigation.</p> <p>⁷¹ DEIS 4-81.</p> <p>⁷² DEIS at 4-81.</p>			As noted in section 4.4.2.1 of the draft EIS, the calculations to determine the appropriate amounts of wetland mitigation bank credits that Commonwealth would propose were still under review by the COE when the draft EIS was issued. Commonwealth’s currently proposed mitigation is provided in section 4.4.2.1 of the final EIS. However, we note this information could change within the COE permit.
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		<p>Page 35 May 23, 2022</p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>analysis is to inform that very review: the entire premise of NEPA is that proposed, non-final actions will be presented to the public for comment. The DEIS offers no justification for failing to present Commonwealth's proposal regarding the amount, type, and location of wetland mitigation bank credits. And again, FERC cannot punt this issue to the Corps. The Corps' decision is itself a major federal action subject to NEPA, and FERC has a statutory obligation to act as lead agency for the NEPA process and to inform the Corps' decisionmaking. 15 USC § 717n.</p>		CO3-51	
<p>It is particularly important to present the proposed mitigation plan to the public in a draft NEPA document because the current plan appears to be a complete departure from Commonwealth's initial proposal. The Corps' May 11, 2020 notice states the applicant proposes that its mitigation will be based on the beneficial use of dredged material (BUDM) and "therefore a supplemental compensatory mitigation plan has not been proposed."⁷³ The notice refers to a BUDM plan, which was not made available with the notice, and the notice does not mention wetlands banking. The DEIS does not mention this prior proposal to use BUDM instead of "purchase of wetlands mitigation bank credits."⁷⁴ While a change in plan is not itself a problem, this change accentuates the problems arising from the DEIS's failure to provide actual specifics about the proposed mitigation: while the public should not be required to look elsewhere to find this information, here, such investigation turns up another plan entirely, which the applicant and agencies appear to have silently discarded.</p>		CO3-52	
<p>VI. Environmental Justice</p> <p>NEPA requires an environmental impact assessment to examine all potential impacts of a project, including "ecological . . . aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative."⁷⁵ Agencies must consider the environmental justice</p>			
<p>⁷³ Commonwealth Army Corps Public Notice.</p> <p>⁷⁴ DEIS at 4-81.</p> <p>⁷⁵ 40 C.F.R. § 1508.8.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 36 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
terminals, three approved but not yet constructed LNG terminals, and an additional two proposed LNG terminals.			
A. The Commonwealth LNG Project Will Have Adverse Impacts on Low-Income and Minority Communities			
FERC uses the 50 percent and the meaningfully greater analysis methods to identify minority populations as recommended by the <i>CEQ Environmental Justice Guidance and Promising Practices</i> . DEIS at 4-170. Using this methodology, minority populations are defined in this EIS where either: (a) the aggregate minority population of the block groups in the affected area exceeds 50 percent; or (b) the aggregate minority population in the block group affected is 10 percent higher than the aggregate minority population percentage in the parish. <i>Id.</i> The guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. <i>Id.</i> Using <i>Promising Practices'</i> low-income threshold criteria method, low-income populations are identified as census block groups where the percent low-income population in the identified block group is equal to or greater than that of the parish. <i>Id.</i>			
A majority of the population within the geographic scope for environmental justice surrounding the project is living in environmental justice communities. DEIS at 5-379. While the Commonwealth Project will not be located within an environmental justice block group, eight of the surrounding 11 block groups within 23 miles of the LNG Terminal, one-mile of the Park and Ride locations, and crossed by the Pipeline segments have been identified as environmental justice census blocks. DEIS at 4-171. Five of the block groups are identified as environmental justice populations based on poverty levels, one due to a meaningfully greater minority population, and two have both high poverty and minority populations. <i>Id.</i> Additionally, one of the census block groups within 1-mile of the Park and Ride locations was identified as an environmental justice community based on poverty levels. <i>Id.</i>			
For this project, a disproportionately high and adverse effect on an environmental justice community means the adverse effect is predominately borne by such population. <i>Id.</i> The DEIS identified that there would be Project-related impacts on wetlands, surface water, visual resources, tourism, socioeconomics, traffic, noise, and air quality that may adversely affect the identified environmental justice communities. <i>Id.</i> The DEIS concludes that, aside from			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 38 May 23, 2022	

CO3-53

The Commission closely followed the guidance outlined in the EPA’s *Promising Practices for EJ Methodologies in NEPA Reviews* (2016) and used its recommendations to identify an appropriate reference and comparison group. Staff used the Parish as the reference community to determine the presence of environmental justice communities within the study area. Staff used all block groups within the geographic scope of each resource analyzed as the comparison group to which environmental justice block groups were compared to determine if impacts were disproportionately high and adverse.

CO3-53

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>significant impacts associated with visual resources, “the impacts experienced by these environmental justice communities in the project area would not be predominately borne by the environmental justice community. Therefore, impacts would not be disproportionately high and adverse as the project would not be located in an environmental justice community and the closest residents are not located in an environmental justice community.” DEIS at 4-182 to -183. Environmental justice concerns cannot be ignored “simply on the basis that those groups will experience conditions no worse than the surrounding county—particularly when the surrounding county presents many of the same concerns that underlie the CEQ’s and EPA’s environmental justice guidance.”⁸¹</p>		CO3-53	
<p>B. The DEIS Fails to Consider Whether Unique Factors Within Impacted Environmental Justice Communities Will Result in Disproportionate Impacts from the Project</p> <p>The DEIS fails to consider that environmental justice populations may be more susceptible to environmental degradation than other populations. As EPA has explained in its guidance on evaluating environmental justice impacts in NEPA review:</p> <p>Focusing the analysis [on the relevant environmental justice context] may show that potential impacts, which are not significant in the NEPA context, are particularly disproportionate or particularly severe on minority and/or low-income communities. As mentioned previously, disproportionately high and adverse effects should trigger the serious consideration of alternatives and mitigation actions in coordination with extensive community outreach efforts.⁸²</p> <p>Thus, the direct, indirect, and cumulative effects of a project may have a disproportionately severe or adverse impact on an environmental justice community even if an</p>		CO3-54	The DEIS describes impacts on environmental justice communities and the increased susceptibility of environmental justice communities related to air quality and GHG impacts. Outreach conducted for the project is discussed in section 4.9.12.1 in the FEIS. Alternative impacts are outlined in section 3.3. Additional mitigation measures have been added to the environmental justice section 4.1.1.14. See response to Comment FA2-10.
<p>⁸¹ <i>Rio Grande LNG, LLC and Rio Bravo Pipeline</i>, 169 FERC ¶ 61,131 (Nov. 22, 2019)(Glick, Comm’r, dissenting at P9).</p> <p>⁸² EPA, <i>Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses</i> § 3.2.2. (Apr. 1998), available at: https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_cpa0498.pdf (hereinafter “EPA EJ Guidance”).</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 39</i> <i>May 23, 2022</i></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
EIS determines that the general impacts are not significant. Moreover, as discussed throughout this submission, FERC failed to evaluate the full severity of many of the Project's impacts.		CO3-54	
One instance of such a failing is the assessment of air quality impacts on environmental justice communities. The DEIS simply concludes that because air pollutants will be minimized or within the NAAQS, their impacts will be minor. The DEIS conducts no further analysis as to whether declining air quality from the Project's significant air emissions will have an adverse and disproportionate impact on EJ communities. By doing so, the DEIS fails to take a hard look at the impacts of declining air quality on EJ communities impacted by the Project, regardless of compliance with the NAAQS. FERC failed to analyze three factors that could result in disproportionate impacts on EJ communities from exposure to increased air emission levels: (1) levels of existing asthma or respiratory disease by income, (2) age disparities, and (3) lack of access to health care.		CO3-55	

CO3-55

Commonwealth conducted air dispersion modeling to assess air quality impacts and show compliance with applicable NAAQS and Class II Prevention of Significant Deterioration (PSD) Increments for the pollutants subject to PSD review. Additionally, FERC modeled the impacts of mobile sources (LNG carriers and tugs) in addition to the PSD and NAAQS modeling required by the state. The cumulative modeling indicated that operation of the Project (including LNG Terminal stationary sources and mobile sources) would contribute to a potential cumulative nitrogen dioxide (NO2) 1-hour NAAQS exceedance, however the Project's contribution (including LNG stationary and mobile sources) would be less than the significant impact level at each exceedance location. A majority of these potential exceedances within the modeled area would be within an environmental justice community (Census Tract 9702.01, Block Group 1) (see Appendix E). Commonwealth's contribution to all exceedances is estimated to be less than the significant impact level at all exceedance locations. Therefore, we conclude that the Project would not cause or significantly contribute to a potential exceedance of the NAAQS and would not result in significant impacts on air quality in the region. NAAQS are designated to protect sensitive populations, we acknowledge that NAAQS attainment alone may not assure there is no localized harm to such populations due to project emissions of volatile organic compounds (VOC), hazardous air pollutants (HAP), as well as issues such as the presence of non-Project related pollution sources, local health risk factors, disease prevalence, and access (or lack thereof) to adequate care. The dispersion modeling analysis conducted as part of the Project coupled with source culpability analyses constitutes an in-depth review of local air quality impacts. While modeling predicts potential exceedances of the NAAQS, project contributions to potential exceedances are negligible. The EPA in conjunction with local air quality agencies work to identify and remedy ambient air quality concerns through State Implementation Plans. The output of the dispersion modeling analysis and the state's permitting of emissions for the Project conclude operational emissions from the Project are not significant. Although the Air Quality and environmental justice impacts are more fully addressed in sections 4.11.1 and 4.9.12.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

<p>FERC’s conclusion is based on the erroneous premise that air pollution is of no concern so long as there is not a National Ambient Air Quality Standards (NAAQS) violation. FERC must recognize that air pollution that does not exceed the individual NAAQS can cause harmful health impacts. Particulate matter, nitrogen-dioxide, and ozone are recognized as pollutants for which no threshold of exposure fully protects human health. <i>Am. Trucking Ass’n, Inc. v. EPA</i>, 283 F.3d 355, 359-360 (D.C. Cir. 2002); EPA, NAAQS for Nitrogen Dioxide, 75 Fed. Reg. 6,474, 6500 (Feb. 9, 2010). For example, although the current NAAQS for ozone is 70 parts per billion, EPA has recognized that ozone levels of 65, or even 60 parts per billion adversely impact short- and long-term respiratory mortality, and significantly impact morbidity. EPA, Regulatory Impact Analysis of the Proposed Revisions to the National Ambient Air Quality Standards for Ground-Level Ozone, at 5-78 (2014).⁸³ Even if FERC is able to demonstrate that the individual and cumulative impact of air pollution are not likely to exceed the NAAQS, this does not demonstrate that the cumulative effect of air pollution impacts on human health will be insignificant.</p> <p>In particular, FERC failed to consider environmental justice communities’ susceptibility to air pollution even at levels below the NAAQS. Agencies should conclude that proposed</p>	<p>CO3-56</p>
<p>⁸³ Available at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100L0HZ.txt.</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>	<p>Page 40 May 23, 2022</p>

CO3-56 See response to comment CO3-55.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173	Filed Date: 05/23/2022
<p>actions will not have disproportionate or adverse impacts on environmental justice communities “solely because the potential impacts of the proposed action or alternative on the general population would be less than significant (as defined by NEPA).”⁸⁴ Thus, a finding that project impacts would be insignificant in general does not mean that those effects will not disproportionately impact EJ communities, or that such disproportionate impacts are not cause for concern.⁸⁵ For example, environmental justice communities may be exposed to multiple pollutants, in a situation wherein no individual pollutant exceeds some threshold of significance, but where the cumulative effect of exposure to multiple pollutants causes concerning health impacts.⁸⁶ This risk of multiple exposure may not be captured by the NAAQS. EPA sets the NAAQS in a context of assessing “acceptable” risks, not eliminating all risk. <i>Murray Energy Corp. v. EPA</i>, 936 F.3d 597, 609 (D.C. Cir. 2019). However, risks tolerated by EPA when setting one-size-fits-all nationwide regulations may be amplified in the context of EJ communities. See e.g., <i>Friends of Buckingham v. State Air Pollution Control Bd.</i>, 947 F.3d 68, 86, 92 (4th Cir. 2020) (finding the Board’s state law EJ analysis incomplete when it failed to consider “the potential degree of injury to the local population independent of NAAQS”).</p> <p style="text-align: center;">VII. Species</p> <p>A. The DEIS Fails to Adequately Assess Impacts on Endangered and Threatened Species</p> <p>A review of the DEIS and materials provided by the Applicant reveals that the analysis contains insufficient information to fully determine the extent of adverse effects on listed species, or to determine whether proposed mitigation measures are sufficient to eliminate, avoid, or minimize adverse effects on those species.</p> <hr/> <p>⁸⁴ EPA, <i>Promising Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee</i> (2016) (“EJ-IWG Guidance”) at 39.</p> <p>⁸⁵ EPA EJ Guidance, at § 3.2.2.</p> <p>⁸⁶ CEQ EJ Guidance, at 9 (“Agencies should consider ... multiple or cumulative exposures to human health or environmental hazards in the affected population”).</p> <p><small>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</small></p>	<p>CO3-57</p> <p>CO3-57</p> <p>See response to comment CO3-55. Table 4.13.1 defines cumulative impacts for air quality from construction within 0.25 mile of the proposed pipeline facilities and within 1.0 mile of the Terminal, as well as air quality from operations within 50 kilometers (31.1 miles) of the proposed Terminal. The distance for operations is used by the EPA for cumulative modeling of large PSD sources during permitting (40 CFR 51, appendix W).</p>
<p><small>Page 41 May 23, 2022</small></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>1. The DEIS's Discussion of the Impacts to the Eastern Black Rail Violates NEPA.</p> <p>a) FERC Cannot Rely on the Flawed Biological Opinion to Satisfy Its Duties Under NEPA.</p> <p>NEPA requires agencies to take a “hard look at the environmental consequences before undertaking a major action.” <i>Baltimore Gas & Electric v. NRDC</i>, 462 U.S. 87, 97 (1983). The agency’s evaluation of the environmental consequences must be based on scientific information that is both “accurate” and of “high quality,” 40 C.F.R. 1500.1(b). While FERC may consider the findings of a biological opinion in reaching its decision under NEPA, <i>see Envtl. Prot. Info. Ctr. v. United States Forest Serv.</i>, 451 F.3d 1005 (9th Cir. 2006), it “may not rely on incorrect assumptions or data in an EIS.” <i>Lands Council v. Cottrell</i>, 731 F. Supp. 2d 1074, 1090 (D. Idaho 2010)(quoting <i>Native Ecosystems Council v. USFS</i>, 418 F.3d 953, 964 (9th Cir. 2005)).</p> <p>Unfortunately, FERC has done just that to dispense of its NEPA obligations. As explained below, the Biological Opinion⁸⁷ is replete with inadequacies and infirmities from an improperly defined agency action, action area, and environmental baseline, to an incomplete analysis of the project’s direct, indirect, and cumulative effects, to the Service’s reliance on speculative mitigation measures.</p> <p>b) The DEIS Fails to Discuss the Cumulative Effects on the Eastern Black Rail.</p> <p>The DEIS fails to include any discussion of the cumulative effects of the proposed project on the eastern black rail. <i>See</i> DEIS at 4-137-138; 4-344-345; 4-127-128. It appears that in FERC’s haste to rely on the Biological Opinion to determine that the project would not have significant impacts to the eastern black rail, it assumed that because the Service determined there are no cumulative effects under the ESA, the same must be true under NEPA. <i>See</i> DEIS at 4-127. But these are different statutes with different regulatory definitions for cumulative effects. <i>See Fund for Animals v. Hall</i>, 448 F. Supp. 2d 127 (D.D.C. 2006). While the ESA does not include federal activities in its definition of “cumulative effects,” (50 C.F.R. § 402.02) NEPA defines</p>			
<p>⁸⁷ <i>See</i> Commonwealth LNG Project Biological Opinion (Sept. 2021), FWS Log #: 04EL1000-2021-F-1554 (“Biological Opinion”), Accession 20210920-5077.</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		<p>Page 42 May 23, 2022</p>	

CO3-58

CO3-58

Potential cumulative impacts on the eastern black rail are discussed in section 4.13.2.5. FERC follows the definition of cumulative impacts under NEPA for this assessment. This assessment acknowledges the findings of the BO in the context of the potential direct impacts on eastern black rails of the proposed Project.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>cumulative effects more broadly. NEPA requires the agency to consider cumulative effects, “which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions <i>regardless of what agency (Federal or non-Federal)</i> or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. §1508.1(g)(3)(emphasis added). Therefore, FERC cannot rely on the ESA’s narrower definition of “cumulative effects” to dispense of its cumulative effects analysis under NEPA.⁸⁸</p> <p>But it appears that FERC did rely on the ESA’s narrower definition of cumulative effects as none of the 45 projects identified in the cumulative effects analysis are considered in the DEIS’s discussion of the impacts to the eastern black rail. This is a glaring omission in the DEIS, and FERC’s failure to adequately address the project’s cumulative effects to the EBR violates NEPA.⁸⁹</p> <p>c) The Biological Opinion Fails to Analyze the <i>Entire Agency Action</i>.</p> <p>The Biological Opinion violates the Endangered Species Act because it fails to analyze the entire agency action.⁹⁰ Here, the agency action includes not just the construction of the terminal and associated pipelines but also <i>the operation</i> of the facility. The Biological Opinion, however, limits its “take” analysis to the “three-year construction period” that the Service</p>		CO3-59	
<p>⁸⁸ Courts have also found that ESA’s section 7 consultation process is not the functional equivalent to NEPA’s environmental review process. <i>Fund for Animals</i>, 448 F. Supp. 2d at 134-36.</p> <p>⁸⁹ Courts have invalidated environmental impact statements that were based on a flawed analysis of species impacts required under other statutes. <i>In Lands Council v. Cottrell</i>, the agency failed to properly assess the impact of its proposed project on the viability of certain species in the project area, as mandated by the National Forest Management Act (NFMA) and the Forest Plan. As such, the court found that the EIS failed to “inform[...] decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts on these species. Therefore, the violation of the NFMA serves to establish a violation of NEPA.” 731 F. Supp. 2d at 1090.</p> <p>⁹⁰ The agency must analyze the entire agency action. <i>See Wild Fish Conservancy v. Salazar</i>, 628 F.3d 513, 521 (9th Cir. 2010); <i>Conner v. Burford</i>, 848 F.2d 1441, 1453 (9th Cir. 1988).</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		CO3-60	
Page 43 May 23, 2022			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>believes will affect approximately 30 eastern black rails “due to permanent alteration of suitable habitat...resulting from clearing and siting of the proposed Commonwealth LNG facility.” Biological Opinion at 23-24. While the clearing and siting of the proposed facility will most certainly take birds in the short and mid-term, the Biological Opinion fails to account for additional birds that will be subsequently harmed by the operation of the Project after the three-year construction period. These impacts include those associated with increased human activity (e.g., noise, lighting, waste, etc.), the potential introduction of industrial contaminants, and increased vehicle and vessel traffic. As the 2018 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.⁹¹ Singing activity of breeding male birds have also been observed to decline in sites that experience human intrusion and disturbance may also result in behavioral changes in non-breeding birds. <i>Id.</i> The increased availability of food wastes can support an increased number of predators and introduce new predator species. <i>Id.</i> at 69. Environmental contaminants further pose a risk to birds and “have well documented direct effects on individual health, reproduction, and the viability of their young.” <i>Id.</i> at 66. Indirect effects may include changes to forage abundance and diversity. <i>Id.</i></p> <p>What makes the Service’s 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 have for this site. Much of the Biological Opinion’s discussion references mitigation plans that would seek to restore habitat, eliminate feral hogs, and reduce human encroachment. <i>See</i> Biological Opinion at 5, 27. Yet these future, longer term impacts could negate any benefits provided by these mitigation efforts. Birds that could otherwise return to the project area years from now may not remain if these operational activities interfere with their ability to feed, reproduce, and raise their young. The Service failed to examine these longer term, continuing impacts to the species in the Biological Opinion and FERC fails to account for these impacts as well in its DEIS. <i>See</i> DEIS at 4-137-138; 4-344-345; 4-127-128.</p> <p>FERC’s analysis must be coextensive with the agency action, and the agency’s failure to</p>			
<p>⁹¹ U.S. Fish & Wildlife Serv., Species Status Assessment Report for the Eastern Black Rail (<i>Laterallus jamaicensis jamaicensis</i>) Version 1.2, 60 (Jun. 2018), available at https://ecos.fws.gov/ServCat/DownloadFile/154242 and attached.</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 44</i> <i>May 23, 2022</i></p>	

CO3-61 CO3-61 See response to CO1-1.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>perform an analysis of the operational impacts of the project is arbitrary and capricious,⁹² as it “entirely fails to consider an important aspect of the problem.”⁹³ These operational impacts must be examined now in the DEIS and as part of FERC’s consultation with the Service. Limiting the scope of consultation to anything less than the entire agency action is contrary to the law and would allow listed species to “be gradually destroyed, so long as each step on the path to destruction is sufficiently modest.”⁹⁴ “The ESA requires more; it ‘requires that the consulting agency scrutinize the total scope of agency action’⁹⁵ and FERC must re-initiate formal consultation to ensure this project does not jeopardize the continued existence of this species.</p>		CO3-61	
<p>d) The Biological Opinion Does Not Properly Define the “Action Area” of the Proposed Action.</p> <p>In addition to failing to consider the <i>entire</i> agency action, the Biological Opinion that FERC relies on does not clearly and accurately define the “action area” of the proposed project. The way the Service defines the “action area” of a proposed project forms the foundation on which the effects of the proposed action and the cumulative effects are analyzed in each consultation. The ESA’s implementing regulations define “action area” as “all areas to be affected <i>directly or indirectly</i> by the Federal action and <u>not merely the immediate area involved in the action.</u>”⁹⁶</p> <p>The action area inexplicably excludes the adjacent property to the west of the terminal facility. Commonwealth relied upon surveys performed by the National Audubon Society that</p>		CO3-62	See response to CO1-1.
<p>⁹² See <i>Conner v. Burford</i>, 848 F.2d 1441, 1457-58 (9th Cir. 1988) (“[B]iological opinions must be coextensive with agency action.”); <i>Greenpeace v. Nat’l Marine Fisheries Serv.</i>, 80 F. Supp. 2d 1137, 1150 (W.D. Wash. 2000) (“A biological opinion which is not coextensive in scope with the identified agency action necessarily fails to consider important aspects of the problem and is, therefore, arbitrary and capricious.”).</p> <p>⁹³ <i>Lands Council v. McNair</i>, 537 F.3d 981, 987 (9th Cir. 2008) (en banc), <i>abrogated in part on other grounds</i>, <i>Winter v. Nat. Res. Def. Council</i>, 129 S. Ct. 365, 375 (2008).</p> <p>⁹⁴ <i>Nat’l Wildlife Fed’n v. National Marine Fisheries Serv.</i>, 524 F.3d 917, 930 (9th Cir. 2008); <i>American Rivers v. U.S. Army Corps of Eng’rs</i>, 271 F. Supp. 2d 230, 255 (D.D.C. 2003).</p> <p>⁹⁵ <i>American Rivers</i>, (quoting <i>North Slope Borough v. Andrus</i>, 486 F. Supp. 332, 353 (D.D.C. 1980), <i>aff’d in part, rev’d in part on other grounds</i>, 642 F.2d 589 (D.C. Cir. 1980)).</p> <p>⁹⁶ 50 C.F.R. § 402.02 (emphasis added).</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 45 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022		
<p>indicated species presence adjacent to and contiguous with the Commonwealth site during the breeding and non-breeding seasons. Biological Opinion at 14. Surveys from May 2017-April 2019 tallied at least 47 eastern black rail detections west of the proposed LNG facility and “it is presumed that habitat supporting EBRs west of the proposed terminal extends eastward toward the terminal site.” The Service in turn, utilized these surveys to estimate the number of EBRs within the action area. The Service then estimated the number of EBRs in the action area to be similar to the number surveyed west of and contiguous with the action area — approximately 50 individuals. Biological Opinion at 15. Despite the presence of black rails immediately to the west of the proposed site, the action area excludes this area. See Biological Opinion at 6. In defining the action area, the Service only includes the 393-acre parcel of land west of the Calcasieu Ship Channel in Cameron Parish, Louisiana.”⁹⁷</p> <p>Yet the ESA regulations require all areas affected “directly or indirectly” by the federal action to be included in the action area. Obviously, birds fly and there is no reason to believe that birds surveyed at the neighboring site do not use the LNG site and vice versa. In fact, one bird west of the adjacent area tracked via VHF radio telemetry indeed moved east into the LNG site area. Therefore, individuals that may killed or injured by the LNG project could include individuals that forage, breed, and raise their young immediately to the west. There is no consideration of how the loss of these birds (particularly if they are breeding pairs) could impact other nearby populations. Moreover, the Service fails to discuss how the loss of suitable habitat at the Commonwealth site could impact future occupancy of these remaining sites as birds compete for even less available habitat. Habitat is a limiting factor, yet it appears that the agencies gloss over this fact, assuming the birds will simply disperse without any consideration</p>	CO3-62	See response to CO1-1.		
<p>⁹⁷ The Service appears to provide an even narrower definition of the action area in the very next sentence. The Service “defines the ‘action area’ for this consultation to include the 118.8 acres of the 393-acre parcel of land to be utilized for construction of the proposed LNG export terminal, the portion of land running north-northwest of the terminal site that is designated for the proposed 3.0-mile-long natural gas pipeline and associated infrastructure, and the waters within the Calcasieu Ship Channel where dredging is planned for construction of the proposed marine facility.” Biological Opinion at 6. This more detailed description of the action area does not reference the 50.6 acres of potentially suitable eastern black rail habitat on the site and adjacent to the proposed terminal footprint. Biological Opinion at 2.</p>	CO3-63			
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>	Page 46 May 23, 2022			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>of whether individuals may become increasingly territorial as they vie for limited habitat.</p> <p>There is also no discussion of how the construction of seawalls, a bulkhead, rip rap, or other armoring features could impact the remaining habitat provided by the exclusion area and the neighboring site. There is no discussion of potential changes to storm surge patterns, increase risk of scouring, vegetation loss, and weakening of the organic layer that could result from these alterations. There is also no discussion about the potential impacts of Commonwealth's dredging plans on the species, much less the cumulative effects of dredging from other nearby, potentially overlapping projects. Up to 1.73 million cubic yards of dredged and excavated material would be removed during construction of the facility and about 152,000 cubic yards of dredged material would be removed every two years during maintenance dredging during operation. DEIS at 4-333. The final rule listing the species under the Endangered Species Act explains that hydrological alterations can affect sediment and nutrient transport and salinities of wetland habitats used by rails, which in turn affect the habitat's composition and structure.⁹⁸ These changes can lead to instability in the duration and intensity of hydroperiods, affect associated vegetation communities, and impact the ability of marsh habitats to adapt to changing conditions.⁹⁹ This situation affects the ability of the habitat to support populations of eastern black rails by exposing them to unsuitable water regimes or converted habitats.¹⁰⁰ Yet there is no discussion of whether the adjacent dredge and fill activities (and conversion of coastal wetlands) could have these types of impacts and contribute to a reduction in the prey base, subsistence, sediment and nutrient transport, and erosion at the neighboring site. Nor is there any discussion of what additional stressors and impacts these birds face on neighboring properties and the additive effects other activities could have on the species.¹⁰¹ These other activities should be</p> <p>⁹⁸ 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).</p> <p>⁹⁹ <i>Id.</i></p> <p>¹⁰⁰ <i>Id.</i></p> <p>¹⁰¹ Courts have invalidated consultations where the agency action was narrowly defined to avoid taking into account other activities that were having an additive effect on the species. <i>See Defs. of Wildlife v. Babbitt</i>, 130 F. Supp. 2d 121 (D.D.C. 2001).</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		CO3-63	CO3-63
		CO3-64	CO3-64
		CO3-65	Section 4.3.2.2 has been revised. The habitat buffer area is on the west side of the terminal site from where the marine facility would be constructed (an area that already contains bulkhead and riprap to the north and south) and would therefore not be vulnerable to scouring. As described in sections 2.1.1.5 and 4.4.2.1, Commonwealth proposes to construct an external stormwater culvert, based on hydrological modeling, that would maintain hydrological flow from the wetlands west of the Terminal site to the Calcasieu River. Commonwealth would consult with NMFS and other agencies for the design of the stormwater culvert to ensure it would be constructed appropriately. As noted in the response to comment CO3-49, storm surge inundation of the habitat buffer area is likely to originate from the low lying wetlands west of the habitat buffer area, independent of the Terminal's presence.
			CO3-65
			Dredging efforts would not affect eastern black rail habitat; dredging would deepen the Calcasieu Ship Channel, which has no impact on high marsh habitat adjacent to the ship channel.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>As the court in <i>Defenders of Wildlife v. Babbitt</i> explained, “[t]he impact of authorized incidental take [caused by the action considered in a given biological opinion] cannot be determined or analyzed in a vacuum, but must necessarily be addressed in the context of other incidental take authorized by [the Service].”¹⁰⁵ Thus, the Service must determine whether the effects of past actions within the action area [and their cumulative incidental take] when added to the effects of this project and its anticipated level of incidental take, will jeopardize the species.</p> <p>There is absolutely no discussion of the past and present impacts of all Federal, State, or private actions and other nearby activities, the anticipated impacts of project that have already undergone consultation, and the impact of non-federal actions which are contemporaneous with the consultation in process. <i>See</i> Biological Opinion at 16-17. This is largely attributed to the fact that the Service has arbitrarily narrowed the scope of the action area to only include the immediate project site, thus precluding any discussion of neighboring projects and their associated impacts.</p> <p>Actions that may be part of the environmental baseline for this project include the long list of projects the applicant has identified and included in the cumulative effects section of the DEIS.¹⁰⁶ These projects include other LNG and pipeline projects, energy projects, industrial projects, transportation, port, and road improvement projects, municipal, medical and educational projects, and commercial and residential projects. <i>See</i> DEIS at 4-315-326. It appears based on a map included on page 4-316 of the DEIS that there are past, present, and reasonably foreseeable future industrial and LNG/pipeline projects in very close proximity to the LNG site that at the very minimum should have been included in the action area and assessed in the environmental baseline. None of these projects are mentioned in the Biological Opinion. In addition to these projects, there could be additional projects that neither FERC nor the Service have considered, including other dredging and maintenance dredging projects, construction projects, and projects subject to nationwide permits issued by the U.S. Army Corps of Engineers. The agencies must consider whether these actions independently and collectively have the</p>		CO3-66	
<p>¹⁰⁵ <i>Def. of Wildlife v. Babbitt</i>, 130 F. Supp. 2d at 127.</p> <p>¹⁰⁶ Unfortunately, as explained later in our comments, the cumulative effects analysis does not include these projects in its assessment of the EBR.</p>		CO3-67	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 49 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
potential to adversely affect the species at issue here. ¹⁰⁷ Without an accurate environmental baseline, neither FERC nor the Service can perform a comprehensive assessment of the project's effects much less ensure that this action will not jeopardize the continued existence of federally listed species or adversely modify their critical habitat.			
f) The Biological Opinion Fails to Adequately Analyze the Project's Direct, Indirect, and Cumulative Effects.			
Without a properly defined "agency action," "action area," and "environmental baseline," the biological opinion provides a grossly inadequate analysis of the potential direct, indirect, and cumulative effects of the project on a variety of listed species. As explained earlier, these effects include the direct, operational impacts to birds that remain or return following the initial clearing and construction of the site, the indirect impacts to birds that use the terminal exclusion buffer area, the secondary impacts to populations occurring on properties adjacent to the site, and the cumulative effects of other nearby projects.			
There is also no discussion of the potential air impacts to EBR from the construction and operation of the facility, despite the DEIS acknowledging that the terminal is considered a major PSD emission source and "would contribute to cumulative impacts on air quality within the cumulative impact area." DEIS at 4-356. Birds can be adversely impacted from being exposed to air pollutants, including carbon monoxide, ozone, sulfur dioxide, smoke, heavy metals, and mixtures of urban and industrial emissions. ¹⁰⁸ Avian responses may include respiratory distress and illness, increased detoxification effort, elevated stress levels, immunosuppression, behavioral changes, and impaired reproductive success. ¹⁰⁹ Exposure to air pollution may reduce population		CO3-68	See response to CO1-1.
¹⁰⁷ As the court in <i>Nat'l Wildlife Fed'n v. NMFS</i> , 481 F.3d 1224, 1235 (9th Cir. 2005) explained, an agency cannot compare the discrete risk posed by an agency action to all risks to the species, rather than adding the effects of the agency action to a properly defined baseline. "Under this approach, a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent." <i>Id.</i>			
¹⁰⁸ Sanderfoot, O.V. and Holloway, T. 2017. <i>Air pollution impacts on avian species via inhalation exposure and associated outcomes</i> . Environ. Res. Lett. 12 083002 (summarizing findings published since 1950 regarding avian responses to air pollution), attached.			
¹⁰⁹ <i>Id.</i>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 50 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>density, species diversity, and species richness in bird communities.¹¹⁰ FERC and the Service must reevaluate these impacts given the numerous deficiencies in the Biological Opinion’s components that lay the foundation for the impacts analysis.</p> <p>Moreover, the Service cannot rest on the assumption that there are no cumulative effects because FERC did not describe any, and the Service “is not aware of any, future non-Federal activities that are reasonably certain to occur within the action area.” Biological Opinion at 9. Following the Service’s rather hasty preparation of the Biological Opinion, FERC released its DEIS, which identifies 45 past, present, and reasonably foreseeable projects that are included in its cumulative effects analysis. <i>See</i> DEIS at 4-315-326. Although other federal activities are excluded from the cumulative effects analysis under the ESA (<i>see</i> 50 C.F.R. § 402.02), FERC and the Service must determine whether some, if not many, of these projects identified in the DEIS should be considered as part of the agencies’ cumulative effects analysis for the eastern black rail under the ESA. FERC and the Service must reinstate formal consultation to properly assess the direct, indirect, and cumulative impacts of this project.¹¹¹</p> <p>g) The Applicant’s Mitigation Plans are Speculative and Will Not Adequately Offset the Project’s Impacts to the Eastern Black Rail</p> <p>The Biological Opinion violates the ESA by relying on speculative mitigation measures to support its decision that the project will not jeopardize the continued existence of the eastern black rail.</p> <p>The ESA requires that any mitigation measures purported to offset the take of a listed species and to justify a no-jeopardy finding, must be mandatory and enforceable. <i>See Ctr. for</i></p>		CO3-69	
<p>¹¹⁰ <i>Id.</i></p> <p>¹¹¹ Federal agencies must reinstate consultation: (1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action. 50 C.F.R. § 402.16 (emphasis added). “The duty to reinstate consultation lies with both the action agency and the consulting agency.” <i>Hoopa Valley Tribe v. Nat’l Marine Fisheries Serv.</i>, 230 F. Supp. 3d 1108, 1122 (N.D. Cal. 2017).</p>		CO3-69	
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 51 May 23, 2022	

See response to CO1-1.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
construction of the terminal would be permanently converted to industrial land use and not available for restoration.			
<p>The Biological Opinion’s statement that Commonwealth “intends” to implement conservation measures, which would “aim to provide potential habitat for the species,” offers no assurances that this approach would benefit eastern black rails, much less be fully implemented by the applicant. Further, if the initial approach is unsuccessful, the Biological Opinion states that Commonwealth would work with a professional to implement a remedial plan. But these plans are also uncertain as the Service concludes that “otherwise” the site would be converted to industrial use and not available for restoration. Further, the Biological Opinion’s terms and conditions (T&C) impose no requirements on the applicant to restore eastern black rail habitat. Instead, they state that FERC “<i>should work with the Service in order to create a restoration plan that would include consideration of vegetation communities utilized by the EBR for the habitat area. If revegetation efforts are unsuccessful, FERC should work with the Service to re-evaluate the approach toward restoring the habitat.</i>” Biological Opinion at 25. Also, there is nothing requiring the applicant to conduct annual post-construction monitoring for the terminal exclusion buffer area as T&C 5/RPM 3 only provides that such monitoring “should be conducted.” Further, there is no discussion in the DEIS or the Biological Opinion about whether wetlands have ever been created or restored to provide habitat for the EBR. We do not believe there have been any such mitigation projects performed in the region.</p> <p>To make matters worse, it appears that while the Service recommends that dredged material be used to restore emergent marsh “in such a manner that a diversity of marsh elevations is restored, including supratidal elevations similar to that of the impact area to support rail habitat,” it concludes that the proposed mitigation plan would not provide adequate EBR habitat because it would not adhere to this recommendation due to lack of high elevation areas needed for EBR habitat. Biological Opinion at 27. Additionally, it is unclear whether Commonwealth would limit vegetation clearing to December-February to adhere to the Service’s recommendation that construction avoid the black rail breeding season and molt periods. <i>Id.</i></p> <p>To the extent Commonwealth is further relying on the buffer exclusion area to mitigate the project’s impacts to the EBR, the Biological Opinion also fails to explain how the preservation and maintenance of the remaining 50.6 acres of the suitable habitat in the buffer</p>	CO3-70		
		CO3-71	
		CO3-72	
		CO3-73	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502		Page 53	
Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022	

Non-Governmental Organizations

CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022

exclusion area will offset the project's impacts. The Biological Opinion states that "Commonwealth proposes mitigation for project-related impacts to the species and its habitat by eradicating feral hogs from the terminal exclusion buffer area. Fencing would be placed around the area to prevent future occupation by feral hogs and to prevent potential human caused impacts within the area." Biological Opinion at 5. Aside from providing no details about how feral hogs are currently affecting the population and what this "eradication" process entails (and whether it could inadvertently affect the EBR), the Biological Opinion fails to explain how removing feral hogs mitigates for the loss of suitable habitat for this imperiled species. Neither the Biological Opinion nor the DEIS explain how this measure would otherwise improve the conditions for a species that will have more than 30 acres of its habitat permanently converted to an industrial use. The Biological Opinion also fails to explain how fencing alone, would "prevent potential human caused impacts" when these impacts go far beyond people simply traversing the site, and could include everything from increased light, noise, predation, and invasive species.

Moreover, there is no discussion of how early successional habitat —which is essential for the EBR — will be maintained in this area. The species is dependent on fire to knock back the herbaceous layer and fire suppression has been detrimental to habitats used by the EBR by allowing the encroachment of woody plants.¹¹³ Without fire or alternate methods of disturbance (e.g., mowing), the amount of preferred habitat is expected to continue to decrease due to encroachment of woody vegetation.¹¹⁴ This is occurring in coastal Texas, for example.¹¹⁵ There is no plan to introduce prescribed fire in the landscape and it is unlikely this will be a management tool given the proximity to the facility. Even if fire or other disturbances are introduced, the timing and frequency of the disturbances is important because there can be undesirable effects.¹¹⁶

These vague, voluntary, and incomplete mitigation measures cannot effectively monitor and minimize take of eastern black rails and therefore do not address the threats to the species in

¹¹³ 85 Fed. Reg. 63769.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ 85 Fed. Reg. 63769-63770.

CO3-73	CO3-73	See response to CO1-1.
CO3-74	CO3-74	See response to CO1-1.
CO3-75	CO3-75	See response to CO1-1. The habitat buffer area would be left untouched and would therefore progress through successional stages in the same manner as it would if the Terminal was not constructed.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>a way that satisfies the jeopardy standard. <i>See Center for Biological Diversity</i>, 198 F. Supp. 2d at 1152. Without adequate, binding mitigation measures, the Service cannot assume that any habitat would be restored and that the project would take no more than 30 individuals. The agencies must therefore reinitiate consultation and reassess the project's direct, indirect, and cumulative effects accordingly.</p> <p>Under NEPA, FERC must also assess these mitigation measures, study their efficacy, and consider alternatives should the mitigation measures fail. <i>See generally, National Parks & Conservation Ass'n v. Babbitt</i>, 241 F.3d 722. "The discussion of steps that can be taken to mitigate adverse environmental consequences plays an important role in the environmental analysis under NEPA." <i>Robertson v. Methow Valley Citizens Council</i>, 490 U.S. 332, 351 (1989); <i>see also</i> 1502.16(h) (stating that an EIS must contain "means to mitigate adverse environmental impacts"). There must be a "reasonably complete discussion of possible mitigation measures." <i>Robertson</i>, 490 U.S. at 352.</p> <p>General references to terms and conditions of the Biological Opinion are insufficient and do not meet FERC's statutory duty under NEPA. The DEIS must contain a far more robust discussion of the proposed mitigation measures and the extent to which they will offset impacts to the species, if at all.</p> <p>h) The Biological Opinion Fails to Adequately Explain Why the Take of 30 Eastern Black Rails Will Not Jeopardize the Continued Existence of the Species.</p> <p>As explained above, the Biological Opinion fails to identify the entire agency action, adequately define the action area, accurately establish the environmental baseline, and fully consider all the impacts resulting from this project. Consequently, the number of birds that may be taken as a result of this project may be even greater than the 30 birds the Service anticipates.</p> <p>Even if the project will take no more than 30 birds, the Service has still not provided adequate support for this conclusion that the project will not jeopardize the continued existence of the species given what we know about the status and prospects for this imperiled species. Before Audubon's studies from 2017-2019, the 2018 USFWS Species Status Assessment concluded that the entire state of Louisiana may have ten or fewer breeding pairs, the Southeast Coastal Plain population is likely to be extirpated in the next 35-50 years due to extremely low</p>			
CO3-76	CO3-76	See response to CO1-1. The terms and conditions of the BO are required and have been agreed to by Commonwealth (as noted in section 4.7.1.2). Complying with the terms and conditions will in part factor in the Project not having a significant impact on Eastern Black Rails, as stated by the FWS, a cooperating agency in this NEPA process.	
CO3-77	CO3-77	See response to CO1-1.	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 55 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>populations threatened by sea level rise and habitat loss, and the species is likely to go extinct by 2068 without implementation of positive land management practices. These factors would suggest that representation, redundancy, and resiliency are extremely low.</p> <p>Basic principles of conservation biology also belie the Service's position that the take of 30 birds will not cause jeopardy. The Biological Opinion does not indicate that the Service ever engaged in a population viability analysis (PVA), which provides a quantitative means for predicting the probability of extinction and for prioritizing conservation needs.¹¹⁷ The Service could have used population-specific life history information for this species to forecast future population sizes.¹¹⁸ This analysis would consider the combined impacts of stochastic factors and habitat loss.¹¹⁹ It could also be used to estimate minimum viable population sizes, which is the smallest size require for a population or species to have a predetermined probability of persistence for a given length of time.¹²⁰ Pioneering research by Franklin (1980) established the 50/500 rule that provided that genetic effective population size should not be less than 50 in a short term and 500 in the long term.¹²¹</p> <p>It appears that no effort was made to determine whether the take of thirty birds could lead to the extirpation of the species in Louisiana, much less whether the project could jeopardize the continued existence of the species based on a PVA. There is no consideration of the impacts of potentially losing many, if not all, of the breeding pairs in the state. If extirpation were to occur, the risk of extinction from stochastic events (e.g., hurricanes, disease, etc.) would likely increase</p>		CO3-78	
<p>¹¹⁷ Reed, D.H. et al. 2003. Estimates of minimum viable population sizes for vertebrates and factors influencing those estimates. <i>Biological Conservation</i> 113: 23-34, attached.</p> <p>¹¹⁸ <i>Id.</i></p> <p>¹¹⁹ <i>Id.</i></p> <p>¹²⁰ <i>Id.</i></p> <p>¹²¹ Franklin, I. R. Evolutionary change in small populations. In <i>Conservation biology: an evolutionary-ecological perspective</i> (eds Soulé, M. E. & Wilcox, B. A.) 135–149 (Sinauer Associates Inc., Sunderland, MA, 1980), attached. Subsequent research, however, suggests that 50/500 individuals may not be enough to avoid extirpation. See Frankham, R., Bradshaw, C. J.A., Brook, B.W. 2014. <i>Genetics in conservation management: Revised recommendations for the 50/500 rules, Red List criteria and population viability analyses</i>. <i>Biological Conservation</i>. 170 (2014) 56-63, attached.</p>		CO3-78	
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 56 May 23, 2022	

See response to CO1-1.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
as the Texas population becomes even further isolated from populations in the Southeast Coastal Plain (Mississippi, Alabama, and Florida). There is also the increased risk of inbreeding as distant small populations may continue to lose genetic variability.			
The Service seems to have ignored all of this and instead concluded that while the action would have a “negative effect on 30 EBRs, such effects to a small portion of the Louisiana population would not be appreciable for the survival and recovery of the EBR.” Not only is this analysis overly simplistic, but the very premise that 30 individuals represent a small portion of the state’s population is not supported by the Biological Opinion. In fact, the Biological Opinion notes that “Louisiana is not currently thought to maintain a breeding population, but it is estimated that there could be 0-10 breeding pairs in the State,” (Biological Opinion at 14) “Louisiana does not have a history of consistently supporting EBRs year-round,” (Biological Opinion at 15), “Cameron Parish may currently support sporadic populations during the breeding and overwintering seasons,” (Biological Opinion at 22), and the population estimates in the state are highly uncertain. Biological Opinion at 17. The Service’s final rule listing the species as threatened also states that “Louisiana has few documented occurrences of eastern black rail and these occurrences are concentrated in and around southwest Louisiana.” ¹²² These statements suggest that the Service is not only unsure about how many rails occur in the state but also that the population is likely small and sporadic. ¹²³ It also underscores how unique this patch of habitat is and how important it is for the bird’s survival and recovery.		CO3-79	See response to CO1-1.
To the extent that the Service maintains that the population is larger than these statements would suggest, because west coastal Louisiana (Cameron and Vermilion Parishes) is a continuation of upper Texas coast habitat, the estimated number of birds in this two-parish region still does not amount to a sizable population of birds in the state. Even if we were to assume that the project area has fifty birds and the surveyed area to the west has 50 birds (100		CO3-79	
¹²² 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, 63787 (Oct. 8, 2020).			
¹²³ See <i>id.</i> at 63795 (noting that “recent first-time surveys conducted in Louisiana during the breeding and non-breeding seasons in 2017 and 2018 detected eastern black rails at 21 of 152 survey points, confirming a small year-round population in the state.”)			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 57 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>or its critical habitat.¹³³ After the Service analyzes the direct, indirect and cumulative effects of the proposed action it makes a finding as to whether the action “is likely to jeopardize the continued existence of the species.”¹³⁴ If it is determined that the action will jeopardize a species or adversely modify the species’ critical habitat, the biological opinion must list any “reasonable and prudent alternatives” to the proposed action that would not result in jeopardy to the species.¹³⁵</p> <p>Even after the Service issues a biological opinion, however, the ultimate duty to ensure that the action will not jeopardize a listed species lies with the action agency. 50 C.F.R. § 402.15; <i>See Pyramid Lake Paiute Tribe of Indians v. United States Dep’t of the Navy</i>, 898 F.2d 1410, 1415 (9th Cir. 1990). An agency cannot rely on an inadequate, incomplete, or flawed biological opinion to satisfy its duty to avoid jeopardy. <i>Id.</i>; <i>See also Center for Biological Diversity v. Salazar</i>, 804 F.Supp.2d 987, 1010 (D. Ariz. 2010); <i>Florida Key Deer v. Brown</i>, 364 F.Supp.2d 1345, 1358 (S.D. Fla. 2005).</p> <p>Unfortunately, FERC has done just that by relying on a deeply flawed Biological Opinion that allows for the take of up to thirty eastern black rails. <i>See</i> DEIS at 4-137-138; 4-344-345; 4-127-128. As explained below, numerous components of the Biological Opinion are inadequate, not based on the best available science, and fail to consider all the impacts resulting from this project. Consequently, the number of birds that may be taken may be even greater than the thirty birds the Service anticipates. Moreover, given that the entire state of Louisiana was estimated by FWS in 2018 to have ten or fewer breeding pairs, the Southeast Coastal Plain population is likely to be extirpated in the next 35-50 years due to extremely low populations threatened by sea level rise and habitat loss, and the species is likely to go extinct by 2068 without implementation of positive land management practices,¹³⁶ the Service cannot support its conclusion that the take of even thirty birds will not cause jeopardy.</p>			
<p>¹³³ 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.02.</p> <p>¹³⁴ 16 U.S.C. § 1536(b).</p> <p>¹³⁵ <i>Id.</i> § 1536(b)(3)(A).</p> <p>¹³⁶ <i>See</i> Commonwealth LNG Project Biological Opinion (Sept. 2021), FWS Log #: 04EL1000-2021-F-1554 (“Biological Opinion”), Accession 20210920-5077.</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 60</i> <i>May 23, 2022</i></p>	

CO3-80 See response to CO1-1.

CO3-80

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>2. FERC’s Reliance on a Flawed Biological Opinion Violates Section 7(a)(2) of the ESA.</p> <p>Even after the procedural requirements of a consultation are complete, the ultimate duty to ensure that an activity does not jeopardize a listed species lies with the action agency. 16 U.S.C. § 1533 (a)(2). An action agency’s reliance on an inadequate, incomplete, or flawed biological opinion cannot satisfy its duty to avoid the likelihood of jeopardy to listed species. <i>See, e.g., Florida Key Deer v. Paulson</i>, 522 F.3d 1133, 1145 (11th Cir. 2008); <i>Pyramid Lake Tribe of Indians v. U.S. Navy</i>, 898 F.2d 1410, 1415 (9th Cir. 1990); <i>Stop H-3 Ass’n. v. Dole</i>, 740 F.2d 1442, 1460 (9th Cir. 1984)(action agency must independently ensure that its actions are not likely to cause jeopardy). Thus, the substantive duty to insure against jeopardy to listed species remains in effect regardless of the status of the consultation.</p> <p>FERC therefore has an independent duty to comply with Section 7’s substantive mandate and thus cannot merely rubber-stamp compliance with a Biological Opinion that it has reason to believe is unlawful, including because it is not consistent with the ESA’s best available science standard. As we have detailed in our comments, the Biological Opinion is a deeply flawed document on which FERC may not reasonably rely and FERC has therefore violated and remains in violation of Section 7(a)(2) of the ESA.</p>		CO3-80	
<p>B. The DEIS Fails to Analyze the Project’s Impacts to the Rice’s Whale and Sperm Whale</p> <p>The DEIS includes a cursory and incomplete discussion of the direct, indirect, and cumulative effects to the Rice’s whale and sperm whale. These species are threatened by vessel strikes, underwater noise within shipping routes, and contaminants from spills and other releases. As explained below, FERC must take a “hard look” at these impacts and not rely on the NMFS’ determination that the project is not likely to adversely affect these species. The agencies must also initiate formal consultation to comply with the Endangered Species Act.</p>		CO3-81	
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 61</i> <i>May 23, 2022</i></p>	

CO3-81 NMFS is a cooperating agency in the NEPA review of the Commonwealth Project and FERC consulted appropriately with NMFS regarding potential impacts on these whale species in accordance with ESA Section 7 procedures. Text has been updated to provide greater detail regarding MMPA requirements.

CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Filed Date: 05/23/2022

a) Rice's Whale

NMFS acknowledges that the Rice's whale's very small population size and limited distribution makes it particularly vulnerable to threats like energy exploration and development, oil spills and spill response,¹⁴⁴ vessel strikes, and ocean noise.¹⁴⁵ Because the population is so small, "the death of a single whale due to any of these stressors could have devastating consequences for the population's recovery."¹⁴⁶ The species can only afford to lose one

146 *Id.*

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>individual every fifteen years as a result of human impacts if it is to recover.¹⁴⁷ Comparatively, NMFS has previously stated that the loss of a single North Atlantic right whale, with a population that numbers in the low hundreds, could contribute to species extinction. NMFS then followed with a vessel-speed regulation for the right whale on that basis.¹⁴⁸</p> <p>Rice’s whales are especially vulnerable to ship strikes because the northern Gulf experiences a high amount of vessel traffic where several commercial shipping lanes cross through their habitat.¹⁴⁹ Because Rice’s whales spend most of their time within 50 feet of the water’s surface, “the risk of vessel strikes is significant given the location of commercial shipping lanes and other transiting vessel traffic and the whale’s swimming behavior.”¹⁵⁰ Contrary to what is stated in the DEIS, the last documented vessel strike was <u>not</u> in 2006. In 2009, a female Rice’s whale was found dead in Tampa Bay and a necropsy determined that it was the result of being struck by a vessel.¹⁵¹ The whale was nursing a calf and it is likely that the calf died as it was still dependent on the mother.¹⁵² Most recently in 2019, a free-swimming whale was observed in the northeastern Gulf of Mexico with a severely deformed spine posterior to the dorsal fin consistent with a vessel strike.¹⁵³</p>		CO3-82	
<p>¹⁴⁷ Natural Resources Defense Council, Healthy Gulf, Center for Biological Diversity, Defenders of Wildlife, Earthjustice, and New England Aquarium, Petition to Establish a Mandatory 10-Knot Speed Limit and Other Vessel-Related Mitigation Measures for Vessel Traffic Within the Core Habitat of the Gulf of Mexico Whale (<i>Balaenoptera Ricei</i>) 2 (May 11, 2021) (hereinafter “NRDC 10 Knot Limit”), attached.</p> <p>¹⁴⁸ NRDC, A petition to list the Gulf of Mexico Bryde’s whale (<i>Balaenoptera edeni</i>) as endangered under the Endangered Species Act, 11 (Sep. 18, 2014), attached (citing 69 Fed. Reg. 30,857, 30,858 (June 1, 2004); 73 Fed. Reg. 60,173, 60,172 (Oct. 10, 2008); 72 Fed. Reg. 34,632, 34,632 (June 25, 2007); 66 Fed. Reg. 50,390, 50,392 (Oct. 3, 2021)).</p> <p>¹⁴⁹ <i>Id.</i></p> <p>¹⁵⁰ <i>Id.</i></p> <p>¹⁵¹ <i>Id.</i></p> <p>¹⁵² NOAA, Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde’s Whale, Final Rule, 84 Fed. Reg. 15446, 15479 (Apr. 15, 2019).</p> <p>¹⁵³ NRDC 10 Knot Limit, at 11 (citing Rose, P.E., Wilcox, L. A., Yamada, T.K. and Mullin, K.D., “A new species of baleen whale (<i>Balaenoptera</i>) from the Gulf of Mexico, with a review of its geographic distribution.” <i>Marine Mammal Science</i>. (Published online: Jan. 10, 2021)).</p>		CO3-82	Section 4.7.1.1 has been expanded to included additional information pertaining to the risk of vessel strikes on whales during LNG vessel transits in the Gulf of Mexico.
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 63 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>The number of reported vessel collisions with Rice’s whales in the Gulf are likely underestimated because they are an offshore species and have low carcass detection and recovery rates compared to more coastal species.¹⁵⁴ In the southern hemisphere, they are the third most commonly reported species struck by ships.¹⁵⁵ In listing the species, NMFS stated “[g]iven the location of commercial shipping lanes, the difficulty of sighting a whale at the surface at night, and the low ability of large ships to change course quickly enough to avoid a whale, the [status review team’s] scoring indicates that ship strikes pose a “high” severity threat to the GOMx Bryde’s whale with “high” certainty.”¹⁵⁶</p> <p>Further, underwater noise from shipping traffic creates low frequency noise that overlaps with the hearing range of these whales.¹⁵⁷ Whales rely on their hearing for communication, navigation, finding a mate, locating prey and to avoid predators. Increased noise levels can cause adverse physical and behavioral effects.¹⁵⁸ Over the past 50 years, there has been an estimated 32-fold increase in the low frequency noise presence along major shipping routes.¹⁵⁹</p> <p>b) Sperm Whale</p> <p>Sperm whales are the largest of the toothed whales and have been listed as endangered under the ESA since 1970.¹⁶⁰ Sperm whales, like Rice’s whales commonly occur in the Gulf of</p>		CO3-83	
<p>¹⁵⁴ The 2009 incident was readily documented because the animal was struck, pinned across the ship’s bow, and transported on the bow for tens or possibly hundreds of miles before it was detected in Tampa Bay. NOAA, Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde’s Whale, Final Rule, 84 Fed. Reg. 15446, 15479 (Apr. 15, 2019).</p> <p>¹⁵⁵ <i>Id.</i></p> <p>¹⁵⁶ <i>Id.</i> at 15480.</p> <p>¹⁵⁷ NOAA Fisheries, Rice’s Whale.</p> <p>¹⁵⁸ <i>Id.</i></p> <p>¹⁵⁹ NRDC 10 Knot Limit (citing Duarte, C.M., Chapuis, L., Collin, S.P., Costa, D.P., Devassy, R.P., Eguiluz, V.M., Erbe, C., Gordon, T.A., Halpern, B.S., Harding, H.R. and Havlik, M.N., “The soundscape of the Anthropocene ocean,” <i>Science</i>, vol. 371, art. Eaba4658 (2021), and citations therein).</p> <p>¹⁶⁰ See NOAA Fisheries, Sperm Whale, at https://www.fisheries.noaa.gov/species/sperm-whale#conservation-management, attached.</p>		CO3-83	
<p>Sections 4.7.1.1 and 4.13.2.5 discuss the potential vulnerability of whales to vessel strikes and further note that the Project would account for a less than 0.5 percent increase in annual vessel traffic within the Gulf of Mexico and therefore the risk to whales due to vessel strikes or vessel noise would not increase significantly due to the Project.</p>			
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		<p>Page 64 May 23, 2022</p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>Mexico. DEIS at 4-135. They are present in the northern Gulf of Mexico year-round but are more common during the summer months.¹⁶¹ The species is listed as endangered and the best abundance estimate for the northern Gulf of Mexico sperm whale is 1,180.¹⁶²</p> <p>Sperm whales make vocalizations called “codas” that have distinct patterns.¹⁶³</p> <p>Recordings from mixed groups in the Gulf of Mexico compared to other groups in the Atlantic indicated that Gulf sperm whales constitute a distinct acoustic clan that is rarely encountered outside the Gulf.¹⁶⁴</p> <p>Sperm whales hunt for food during deep dives that can reach depths of 2,000 feet and after long, deep dives they come to the surface to breathe and recover for several minutes before initiating their next dive.¹⁶⁵ Vessel strikes can injure or kill sperm whales and while few vessel strikes have been documented, vessel traffic is increasing worldwide, which increases the risk of collisions.¹⁶⁶</p> <p>2. The DEIS Does Not Adequately Examine the Risk of Vessel Strikes.</p> <p>The DEIS recognizes that increased LNG carrier traffic during operation of the project and other projects considered, could increase the potential for vessel strikes on whales. DEIS at 4-342. However, the DEIS goes on to discount these impacts because LNG carriers use “established and well-traveled shipping lanes that do not overlap with the biologically important area in the northeastern Gulf of Mexico where Rice’s whales are known to concentrate.” DEIS at 4-342.</p> <p>FERC’s analysis is deficient because the agency fails to examine the risk posed to Rice’s whales outside these shipping lanes. FERC recognizes that “suitable habitat for these species is</p>			
		CO3-84	CO3-84
<hr/> <p>¹⁶¹ <i>Id.</i></p> <p>¹⁶² NOAA, Sperm Whale (<i>Physeter macrocephalus</i>): Northern Gulf of Mexico Stock, 149 (Apr. 2021), attached.</p> <p>¹⁶³ <i>Id.</i></p> <p>¹⁶⁴ <i>Id.</i></p> <p>¹⁶⁵ <i>Id.</i></p> <p>¹⁶⁶ <i>Id.</i></p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Page 65 <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i> May 23, 2022</p>			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>outside the 300-m isobath, NMFS subsequently identified a “core distribution area” for the species in 2019 that is based on visual sightings and tag data.¹⁷² This map extends the area to the 410 m isobath.¹⁷³</p> <p>The DEIS, however, makes no mention of these well documented occurrences from the 100-m to 500 m isobath, nor does it mention the larger “core distribution area” established by NMFS in 2019. This is extremely concerning because it appears the “core distribution area” also does not appear in the 2020 concurrence letter from NMFS despite it predating FERC’s consultation with NMFS. By not considering this information, FERC and NMFS have failed to use the best available science and their determination that the project is “not likely to adversely affect the species,” is arbitrary and capricious because it ignores relevant factors that are integral to the decision-making process.</p> <p>With respect to the sperm whale, FERC’s analysis is also flawed because it assumes an average of 2 sperm whales are struck by vessels per year (DEIS at 4-136, 4-342) but does not account for a cumulative increase in vessel traffic resulting from not only this project, but other LNG projects and oil and gas activities stemming from the lifting of the moratorium this year. It is also not clear from the DEIS and NMFS’ concurrence letter whether these calculations are based on the current baseline of activities in the Gulf (which should be based on the past and present impacts of all Federal, State, or private actions and other human activities in the action area pursuant to 50 C.F.R. § 402.02). Rather, it appears the IWC Ship Strike Database and the supplemental data from Carrillo and Ritter, are from 2010.¹⁷⁴ Shipping has increased significantly in the Gulf in recent years and there is no indication that either the 2 strikes per year statistic or the figure of 964,316 total annual trips is based on current conditions. Further, there is no discussion of how a loss of two (or potentially more) sperm whales per year from ship strikes affects the population and the prospects for species recovery.</p> <p>¹⁷² <i>Id.</i>; NOAA Fisheries, Rice’s Whale Core Distribution Area Map & GIS Data, at Rice's Whale Core Distribution Area Map & GIS Data NOAA Fisheries.</p> <p>¹⁷³ <i>Id.</i></p> <p>¹⁷⁴ See Letter from Karla Reece, NMFS to Kevin Wolfe, TRC Companies, Inc. (October 19, 2020) at 16, Accession 20210319-5269, Appendix C Correspondence Log.PDF.</p>	CO3-84		
	CO3-85	CO3-85	Section 4.7.1.1 has been expanded to include discussion of the noted occurrences within the 100-meter to 500-meter isobaths and the "core distribution area.", which encompasses the biologically important area. We note that MMPA consultation is not yet complete, as noted in section 4.6.2.1. However, neither the occurrences within the 100-meter to 500-meter isobaths nor the core distribution area overlap with the shipping lanes that would be used by the Project vessels and the Project would account for a less than 0.5 percent increase in annual vessel traffic and would therefore not pose a significant threat to whales in the Gulf of Mexico.
	CO3-86	CO3-86	As noted in the response to comment CO3-83, the Project would account for a less than 0.5 percent increase in annual vessel traffic within the Gulf of Mexico. This percentage would be even smaller with an increased number of total annual vessel transits in the Gulf of Mexico. Consequently, the increase in vessel traffic in the Gulf of Mexico resulting from operation of the Project would not pose a significant threat to whales or contribute significantly to cumulative impacts on whales in the Gulf of Mexico.
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 67 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173 Filed Date: 05/23/2022

CO3-87

FERC's discussion of the impacts of vessel strikes is further deficient because it relies on voluntary measures to minimize the potential for vessel strikes. There is no requirement for mariners to follow these measures and even if LNG carrier captains adhered to the measures outlined in the NMFS' Vessel Strike Avoidance Measures and Reporting for Mariners, these measures were put in place more than a decade before the Rice's whale was listed under the ESA and do not adequately address the risks posed to this highly endangered species. Most notably, there is no requirement that mariners maintain a speed of less than 10 knots, which is one of the best measures for reducing the risk of vessel strikes.¹⁷⁵ Instead, it merely provides that mariners *should* "reduce vessel speed to 10 knots or less when mother/calf pairs, groups, or large assemblages of cetaceans are observed near an underway vessel, when safety permits."¹⁷⁶ Recommending mariners reduce their speed only when more than one whale is observed, provides little protection to the species when the take of a single individual could have significant, deleterious impacts to the recovery of the species. Moreover, there are no restrictions on operating at night, when Rice's whales are closest to the surface and visibility is limited. In the case of the sperm whale, they often spend long periods (typically up to 10 minutes) "rafting" at the surface between deep dives, making them vulnerable to vessel strikes.¹⁷⁷ Further, many voluntary slow speed programs and whale advisories have not had the desired result. For example, mariner compliance with voluntary slow speed programs in Dynamic Management Areas has been limited with only a small percentage of vessels modifying their speed to less than ten knots within active DMAs.¹⁷⁸ Further, NOAA Fisheries advisories regarding the presence of blue whales in the Santa Barbara Channel in California and requests for voluntary ship speed

¹⁷⁵ See NRDC 10 Knot Limit, at 15-16.

¹⁷⁶ NOAA, Vessel Strike Avoidance Measures and Reporting for Mariners NOAA Fisheries Service (hereinafter "NOAA Vessel Strike Avoidance"), Southeast Region, at https://media.fisheries.noaa.gov/dam-migration/vessel_strike_avoidance_february_2008.pdf, and attached.

¹⁷⁷ NOAA Fisheries, Sperm Whale, at <https://www.fisheries.noaa.gov/species/sperm-whale>.

¹⁷⁸ NRDC 10 Knot Limit, at 15-16 (May 11, 2021) (citing NMFS, "North Atlantic Right Whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment," National Marine Fisheries Service, Office of Protected Resources, Silver Spring, MD (Jun. 2020)).

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>reductions went almost entirely unheeded.¹⁷⁹ Therefore, the agencies' should not rely on these voluntary programs to minimize the risk to the species. Rather, the agencies must initiate formal consultation under the ESA and develop reasonable and prudent alternatives or measures with mandatory terms and conditions that ensure this action will not jeopardize the species.</p>		CO3-88	
<p>3. The DEIS Does Not Examine Noise Impacts from Increased Vessel Traffic.</p> <p>In addition to not adequately examining the impacts of vessel strikes, the DEIS does not adequately examine the project's noise impacts on the species. FERC concludes that "given the offshore habitat in which these species are found, the noise and vessel traffic associated with construction of the LNG terminal would not affect these species." DEIS at 4-135. Yet there is no consideration of the noise impacts from increased vessel traffic during the operation of this facility. <i>See</i> DEIS at 4-135-4-136; 4-342.</p> <p>This is a glaring oversight as noise from large ships can have significant impacts on the species. Whales can experience temporary and permanent hearing loss when exposed to high sound levels.¹⁸⁰ Shipping noise can mask the calls of baleen whales and has been associated with indicators of chronic stress in these species.¹⁸¹ Rice's whale vocalizations overlap strongly with commercial shipping and seismic airgun noise, leaving the species very vulnerable to masking and other deleterious effects.¹⁸² With respect to the sperm whale, NOAA has stated that "disturbance by anthropogenic noise may prove to be an important habitat issue in some areas of this population's range, notably in areas of oil and gas activities and/or where shipping activity is</p>		CO3-89	
<hr/> <p>¹⁷⁹ <i>Id.</i> at 16.</p> <p>¹⁸⁰ NRDC ESA Bryde's Whale ESA Report.</p> <p>¹⁸¹ <i>Id.</i></p> <p>¹⁸² <i>Id.</i></p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<i>Page 69</i> <i>May 23, 2022</i>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>high.¹⁸³ Simulations have suggested that frequent and severe disruptions could lead to terminal starvation.¹⁸⁴</p> <p>The Gulf of Mexico is one of the world’s noisiest seas at low frequencies due to oil and gas energy exploration and shipping.¹⁸⁵ Outside the De Soto Canyon, deep-water sites in the Gulf have high sound-pressure spectrum levels caused by seismic exploration, shipping, fishing, and other activities.¹⁸⁶ A federal moratorium on new leases sales in the Gulf is also set to expire this year, which could result in a further increase in noise from additional oil and gas activities.¹⁸⁷</p> <p>FERC must consider these indirect and cumulative noise effects across the species’ range and examine the risk increased vessel traffic poses to these whales.</p> <p>4. FERC Must Engage in Formal Consultation with NMFS under the ESA</p> <p>The threshold for triggering formal consultation under the ESA is “very low” and “any possible effect...triggers formal consultation requirements.” 51 Fed. Reg. 19,926, 19,949 (June 3, 1986). This includes effects that are beneficial, benign, adverse, or of an undetermined character. <i>Fla. Key Deer v. Stickney</i>, 864 F.Supp. at 1228-29. “The threshold for formal consultation must be set sufficiently low to allow Federal agencies to satisfy their duty to “insure” under Section 7(a)(2).” <i>Id.</i> (quoting 51 Fed. Reg. at 19,949-950 and supplying emphasis).</p> <p>The DEIS states that the project “would contribute to a long-term cumulative increase in risk to whales in the Gulf of Mexico.” DEIS at 4-342. This alone is enough to trigger formal consultation despite FERC’s refusal to analyze the impacts of vessel strikes outside the BIA and reliance on voluntary measures to reduce the risk of vessel strikes. Further, the documented</p>			
CO3-90	CO3-90	See response to comment CO3-81.	
CO3-91	CO3-91	See responses to comments CO3-85, 86, and 88.	
<p>¹⁸³ NOAA, <i>Sperm Whale (Physeter macrocephalus): Northern Gulf of Mexico Stock</i>, 153 (Apr. 2021).</p> <p>¹⁸⁴ <i>Id.</i></p> <p>¹⁸⁵ Natural Resources Defense Council, <i>A report on designating critical habitat for the Gulf of Mexico Byrde’s whale (Balaenoptera edeni) under the Endangered Species Act</i> (Apr. 6, 2020), (citing Rosel et al. 2016).</p> <p>¹⁸⁶ <i>Id.</i></p> <p>¹⁸⁷ <i>Id.</i></p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p>Page 70 May 23, 2022</p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>occurrence of Rice's whales outside the BIA in areas that overlap the shipping channels, further supports a determination that the project will have negative effects on the species.</p> <p>Therefore, it is improper for FERC to conclude that the project is not likely to adversely affect these species and for NMFS to concur with that determination. The agencies need to engage in formal consultation and NMFS must prepare a Biological Opinion for this project.</p> <p>C. The EIS Fails to Account for All Forms of Take Prohibited by the Marine Mammal Protection Act and Commonwealth LNG Should Obtain Pre-Construction Incidental Take Authorization from NMFS for All Forms of MMPA Take that May Occur, Including Level B Harassment</p> <p>The DEIS states that "Commonwealth is consulting with NMFS to submit an application for an Incidental Harassment Authorization (IHA) under the MMPA prior to the beginning of construction of the Terminal."¹⁸⁸ FERC should require that Commonwealth obtain the IHA, or else an express determination from NMFS that no form of MMPA take is likely to occur, <i>see</i> 50 C.F.R. 216.104(a), prior to the commencement of marine activities, particularly for dolphin stocks. In a May 2019 letter to NMFS styled as a "Request for Review under the Endangered Species Act and the Marine Mammal Protection Act," Commonwealth failed to examine Level B harassment of dolphins from pile driving activities, and, seemingly ignoring that form of Marine Mammal Protection Act (MMPA) take, concluded that "it is expected that construction and operation of the LNG Facility will not result in a 'take' of marine mammals" under the MMPA.¹⁸⁹ Commonwealth's letter then asked NMFS to "review the recommended effects determinations for the species described above and provide concurrence under Section 7 of the</p>	CO3-91		
		CO3-92	
<p>¹⁸⁸ DEIS at 4-103.</p> <p>¹⁸⁹ Letter from TRC Companies to NOAA Fisheries Protected Resources Division Re: Commonwealth LNG Export Terminal Request for Review under the Endangered Species Act and the Marine Mammal Protection Act, May 13, 2019, at 11-12 of 16 (record obtained by Sierra Club from NMFS in response to FOIA request #DOC-NOAA-2022-000822 as record titled "2022-000822-11R-UR-0068.pdf") (hereinafter "TRC Letter to NOAA") (attached). <i>See also</i> Commonwealth LNG, LLC Application for Authorization under Section 3 of the Natural Gas Act under CP19-502, Aug. 20, 2019, Appendix 3-PUB.pdf, at 99 of 549, Accession 20190820-5125 (copy of May 13, 2019 letter to NMFS).</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 71</i> <i>May 23, 2022</i></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173	Filed Date: 05/23/2022
<p>ESA and MMPA.”¹⁹⁰ Although NMFS issued an ESA concurrence letter concurring with the conclusion that the project, with additional mitigation sought by NMFS, was “not likely to adversely affect” ESA-listed species in light of the ESA’s definition of take, NMFS’s concurrence letter did not evaluate whether incidental take, as defined under the MMPA, is likely to occur for species not listed under the ESA, such as bottlenose dolphins.¹⁹¹</p> <p>Documents in the docket show that Commonwealth has told FERC that it intends to file an application for an MMPA permit (i.e., an IHA) in the first quarter of 2022 so that the MMPA authorization may be finalized by June 2023.¹⁹² In a filing dated March 19, 2021, Commonwealth stated that it would “provide a draft application for the Incidental Harassment Authorization approximately two months prior to submittal of the final application, which will take place approximately nine months prior to commencement of in-water pile driving. Commonwealth will provide a copy of the draft application to FERC at that time.”¹⁹³</p> <p>Subsequent e-mails between Commonwealth and NMFS show that Commonwealth intended to file its draft application for an IHA with NMFS four months prior October 6, 2022, the date by which Commonwealth hoped NMFS would deem the application complete.¹⁹⁴ The proposed schedule for NMFS review of the IHA indicates that the proposed IHA would be published on</p>	CO3-92
<p>¹⁹⁰ TRC Letter to NOAA, at 13.</p> <p>¹⁹¹ NMFS Commonwealth Concurrence Letter, October 19, 2020, at 15 (hereinafter, “NMFS Commonwealth Concurrence Letter”) (attached) (digitally signed version obtained by Sierra Club from NMFS in response to FOIA request #DOC-NOAA-2022-000822 as record titled “2022-000822-IIR-UR-0012.pdf”). See also Commonwealth LNG, LLC submits its responses to the March 4 Environmental Information Request under CP19-502, Appendix C Correspondence Log.pdf, March 19, 2021, at 119 through 137 of 306, Accession 20210319-5269 (Commonwealth providing the October 19, 2020 NMFS Concurrence Letter to FERC).</p> <p>¹⁹² Commonwealth Response to Environmental Information Request Dated December 6, 2021, Dec. 16, 2021, Commonwealth LNG-EIR-11_Responses-2021-12-16 (PUB).pdf, at 5, Table 1.10-1 (revised), Accession 20211217-5015.</p> <p>¹⁹³ Response to Environmental Information Request Dated March 4, 2021, March 19, 2021, at 3, Accession 20210319-5269.</p> <p>¹⁹⁴ E-mails from Keith Suderman to Brian Rosegger, October 21, 2021, in Commonwealth LNG, LLC submits response to the October 18, 2021, Environmental Information Request for Commonwealth LNG Project under CP19-502, App_A-Commonwealth-Correspondence-2021-10-25.pdf, at 228, Accession 20211025-5106.</p>	
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>	<p>Page 72 May 23, 2022</p>

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>February 13, 2023, and that the final IHA would be published June 27, 2023.¹⁹⁵ The e-mails from Commonwealth to NMFS indicate that Commonwealth intended in-water pile driving activities to commence in August 2023 and to be complete in June 2024.¹⁹⁶</p> <p>For reasons detailed below, FERC should not assume that Commonwealth's application for an IHA will be approved.</p> <p>Furthermore, FERC should closely scrutinize the information in this DEIS for inconsistency with determinations already made by NMFS regarding the extent of the impacted zone for pile driving activities, even with mitigation. The information in this DEIS appears to be inconsistent with the results of calculations by NMFS summarized in its October 19, 2020 ESA concurrence letter, and to underestimate the size of the area that will be subject to sound levels constituting Level B harassment of mid-frequency cetaceans (such as bottlenose dolphins). Based on the information in the NMFS concurrence, the proposed mitigation measures seemingly will not be sufficient to preclude Level B harassment of bottlenose dolphins. Level B harassment of bottlenose dolphins would be unlawful without authorization from NMFS via an IHA or other express authorization from NMFS under the MMPA.</p>			
<p>1. The MMPA Prohibits All Forms of Take of Marine Mammals, Including Level B Harassment, Absent Authorization from the Services</p> <p>"The MMPA was enacted to protect marine mammal species and population stocks in the wild that are or may be 'in danger of extinction or depletion as a result of man's activities.'" <i>Georgia Aquarium, Inc. v. Pritzker</i>, 135 F. Supp. 3d 1280, 1291–92 (N.D. Ga. 2015) (quoting 16 U.S.C. § 1361(1)). The stated purposes of the MMPA are:</p> <p>(a) to prevent marine mammals species and population stocks from "diminish[ing] beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, [and] below their optimum sustainable population," and</p> <p>(b) to protect and encourage development of the species and stocks "to the greatest extent feasible commensurate with sound policies</p>			
<p>¹⁹⁵ <i>Id.</i></p> <p>¹⁹⁶ <i>Id.</i></p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 73</i> <i>May 23, 2022</i></p>	

CO3-93

CO3-93

Section 4.6.2 has been updated using the most recent NMFS Pile Driving Calculator tool. See response to comment CO3-92.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173

Filed Date: 05/23/2022

Fishermen's Ass'n v. Sec'y of Commerce, 839 F.2d 795, 801 (D.C. Cir. 1988) (discussing inability of Secretary to make findings to authorize incidental take in light of information gaps and disputes regarding baseline status of population); *Nat. Res. Def. Council, Inc. v. Evans*, 232 F. Supp. 2d 1003, 1027 (N.D. Cal. 2002) ("small numbers" restriction on issuance of incidental take regulation under section 1371(a)(5)(A) must be interpreted against the background that "[t]he intent of Congress is that the taking of even a single marine mammal is to be avoided.").

2. The EIS Should Clearly Identify the Radius of Impact for All Forms of MMPA Take, Including Level B Harassment

a) Calcasieu Lake Stock Bottlenose Dolphins are Likely to Occur in the Project Area Affected by Pile Driving

In the DEIS and other documents, Commonwealth LNG concedes that bottlenose dolphins are likely to occur near the project area. *See* DEIS at 4-103, Table 4.6.2-2 (listing Atlantic spotted dolphin, Bottlenose dolphin, and West Indian manatee as "Likely to Occur in Project Vicinity."); *see also id.* at 4-102 to 4-103 ("There is potential for the bottlenose dolphin, Atlantic spotted dolphin, and West Indian manatee to occur in the Project vicinity."). A May 13, 2019 letter to NMFS from TRC Companies stated: "Two marine mammal species, the Atlantic spotted dolphin and common bottlenose dolphin, occur within the Calcasieu Ship Channel."²⁰²

Indeed, there is ample evidence that at least one pod of bottlenose dolphins frequents the narrow Calcasieu Ship Channel, which connects Lake Calcasieu to the Gulf, and which is the area that would be ensonified above the thresholds for Level B harassment by pile driving activities for the marine construction associated with Commonwealth LNG. Information from recent news reports indicates that there is at least one pod of dolphins, including two extremely rare pink dolphins, inhabiting the Calcasieu Lake and Calcasieu Shipping Channel area. The dolphins in the Calcasieu Shipping Channel are part of the Calcasieu Lake stock of bottlenose dolphins; the stock area includes Calcasieu Lake and the Calcasieu Shipping Channel, which

²⁰² TRC Letter to NOAA at 12.

Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network

Page 77
May 23, 2022

CO3-94

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>dolphins are frequently present in the Channel. Resource Report 3 prepared for the CP2 LNG project, and dated December 2021, states: “Bottlenose dolphins are frequently observed riding the bow waves of passing vessels in the Calcasieu Ship Channel.”²⁰⁸</p> <p>b) Calculations by NMFS Show that <u>Even with Mitigation</u>, Level B Harassment of Bottlenose Dolphins is Not Precluded, and Contradict the Data Presented in the DEIS</p> <p>The width of the Calcasieu Shipping Channel in the area that would be ensounded by pile driving activities is only 1440 feet.²⁰⁹ As NMFS noted with regard to its analysis of ESA-listed species in the channel (sea turtles), ensounding the entire width of the channel to sound levels causing behavioral impacts results in “potentially creating a temporary behavioral blockage of the channel” preventing affected species from passing up or down stream.²¹⁰ Although NMFS concluded that this would not result in ESA take by harassment of sea turtles because the take ostensibly could not result in injury, it did not apparently evaluate whether such impacts would constitute MMPA Level B harassment of dolphins, which does not require the potential for injury, but rather turns on potential disturbance.</p> <p>For mid-frequency cetaceans such as bottlenose dolphins, NMFS considers 120 dB rms to be the threshold for Level B harassment from a continuous noise source like vibratory pile driving and 160 dB rms to be the threshold from an intermittent noise source like impact pile</p> <p><u>https://www.katc.com/news/around-acadiana/calcasieu-parish/2019/04/06/another-pinky-the-dolphin-sighting/</u> and attached (“... Pinky and a dolphin companion swam alongside the Randolph John in the Calcasieu Ship Channel in Cameron at 1:30 p.m. today.”) (“KATC Pink Dolphin”); Landry, Sophia, KPLC News, Aug. 21, 2018, Two ‘pink’ dolphins spotted in Calcasieu Ship Channel, (“KPLC Pink Dolphin”), available at <u>https://www.kplctv.com/story/38933635/two-pink-dolphins-spotted-in-calcasieu-ship-channel/</u> and attached (“Pinky the dolphin is back in the Calcasieu Ship Channel, this time with a look-alike... The two dolphins were spotted by Thomas Adams with Fishing Tom’s Guide Service on Aug. 21.”).</p> <p>²⁰⁸ CP2 Resource Report 3, Dec. 2021, at 3, Accession 20211202-5104 (“CP2 Volume II Part 32 RR 3”) <u>https://eflibrary.ferc.gov/eLibrary/filedownload?fileid=748567CC-905F-C456-9A2F-7D7C31E00000</u> (emphasis added), attached.</p> <p>²⁰⁹ NMFS Commonwealth Concurrence Letter, at 15.</p> <p>²¹⁰ <i>Id.</i></p>			
CO3-95	CO3-95	See response to comment CO3-92.	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 79 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173	Filed Date: 05/23/2022
<p>driving. <i>See, e.g.</i>, 85 Fed. Reg. at 27380 (“Based on what the available science indicates and the practical need to use a threshold based on a factor that is both predictable and measurable for most activities, NMFS uses a generalized acoustic threshold based on received level to estimate the onset of behavioral harassment. NMFS predicts that marine mammals are likely to be behaviorally harassed in a manner we consider Level B harassment when exposed to underwater anthropogenic noise above received levels of 120 dB re 1 μPa (rms) for continuous (e.g., vibratory pile-driving, drilling) and above 160 dB re 1 μPa (rms) for intermittent (e.g., impact pile driving) sources...Both Rio Grande and Annova’s activities include the use of continuous (vibratory pile driving and removal) and intermittent (impact pile driving) sound sources; therefore, the 120 and 160 dB re: 1 μPa (rms) are applicable.”). When background noise levels are higher than the continuous noise threshold of 120 dB rms, NMFS may adjust this threshold upward “slightly.”²¹¹ The adjusted threshold should be determined by NMFS during consultation.²¹² NMFS’s ESA concurrence letter mentions that background noise levels in the channel are 130 dB rms, but it does not include any discussion of adjusting the continuous source Level B harassment level for mid-frequency cetaceans (such as bottlenose dolphins) of 120 dB rms upward to account for background levels.²¹³ Again, with regard to marine mammals, the ESA concurrence letter only evaluated impacts to ESA-listed species, none of which were expected to be in or near the channel, where in-water pile driving activities would occur. Since bottlenose dolphins are not ESA-listed, impacts to them, and the potential for harassment of dolphins, were not evaluated in the ESA concurrence letter.</p> <p>Although NMFS’s ESA concurrence letter did not calculate the radius for impacts with regard to dolphins, it did calculate the impacts with regard to sea turtles, which share a</p> <p>²¹¹ <i>See</i> NOAA Fisheries, ESA Section 7 Consultation Tools for Marine Mammals on the West Coast, https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/esa-section-7-consultation-tools-marine-mammals-west (“*The 120 dB threshold may be slightly adjusted if background noise levels are at or above this level.”).</p> <p>²¹² <i>See id.</i> (“Through consultation with NOAA Fisheries staff, the 120 dB rms threshold may be adjusted if background sound is at or above this level.”).</p> <p>²¹³ <i>See</i> NMFS Commonwealth Concurrence Letter, at 3 (“Based on ambient noise levels measured in comparable waterbodies, the Calcasieu Ship Channel is anticipated to have a representative ambient noise level of about 130 dB RMS.”).</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>	<p>CO3-96</p> <p>CO3-96</p> <p>See response to comment CO3-92.</p>
<p>Page 80 May 23, 2022</p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>behavioral effects threshold of 160 dB rms for pulse/intermittent sounds, such as impact pile driving. NMFS thus calculated the radius that would be ensonified to 160 dB rms by impact driving, <u>even with the application of both cushion blocks and bubble curtains</u> to mitigate the sound impacts.²¹⁴ NMFS's analysis concluded that the area ensonified to 160 dB rms from impact driving, even with mitigation, would be as follows:</p> <ul style="list-style-type: none">• 42-inch diameter steel: 1,523 feet• 48-inch diameter steel: 1,523 feet• 54-inch diameter steel: 1,523 feet• 96-inch diameter steel: 3,281 feet <p>Thus, even with cushion blocks and bubble curtains, the entire width of the channel would be ensonified to the threshold of 160 dB rms, the threshold NMFS recognizes as Level B harassment for mid-frequency cetaceans such as dolphins from pulse sources such as impact driving.</p> <p><u>Notably, the values presented in the DEIS are not consistent with the radii above from the NMFS ESA concurrence letter, and are vastly lower than the corresponding radii calculated by NMFS.</u>²¹⁵ The DEIS asserts that with the same mitigation measures (cushion blocks and bubble curtains), the corresponding radii for the area ensonified to 160 dB rms by impact driving are only:</p> <ul style="list-style-type: none">• 42-inch diameter steel: 10 feet• 48-inch diameter steel: 10 feet• 54-inch diameter steel: 23 feet• 96-inch diameter steel: 112 feet.²¹⁶ <p>This difference does not appear to be the result of a change in the number of piles, piles per day, impact hammer strikes, or amount of vibratory driving to start installation of the piles,</p>		CO3-97	
<p>²¹⁴ See NMFS Commonwealth Concurrence Letter, at 13–14, Table 5 (stating that radius of behavioral effects threshold area was “*Based on 10-15 dB noise reduction resulting from use of cushion blocks and bubble curtains.”).</p> <p>²¹⁵ See DEIS at 4-111, Table 4.6 2-5.</p> <p>²¹⁶ DEIS at 4-111, Table 4.6 2-5.</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 81</i> <i>May 23, 2022</i></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>as those values are all unchanged between the NMFS ESA concurrence letter and the DEIS.²¹⁷ Moreover, in March of 2021, Commonwealth's consultant contacted NMFS because his calculations of the impacts with mitigation showed radii of impact for behavioral effects an order of magnitude smaller than the values NMFS had calculated in the October 2020 FSA concurrence letter.²¹⁸ NMFS staff informed Commonwealth's consultant that the numbers in the concurrence letter were correct, and already took into account the mitigation measures, and, further, indicated that the spreadsheet tool the consultant was using may contain an error that caused the discrepancy.²¹⁹ Commonwealth's consultant responded, "we will use the values you provided in the [concurrence] letter and proceed accordingly unless we hear otherwise from you."²²⁰ The May 4, 2021 Biological Assessment transmitted from FERC to FWS shows radii for behavioral effects that are identical to the values in the October 2020 NMFS concurrence letter and, again, makes clear that those numbers already take into account noise reduction from the use of cushion blocks and bubble curtains.²²¹ The public docket does not appear to contain any documents that explain why the numbers presented in the DEIS for the radii for the 160 dB rms threshold are inconsistent with the October 2020 concurrence and the May 4, 2021 Biological Assessment.</p>			
<p>Further, it is plain from the radii calculated by NMFS in the October 2020 concurrence letter that the 330 ft (100 meter) wildlife observer buffer proposed by Commonwealth will not preclude Level B harassment of dolphins, and that a vast area in this narrow portion of the</p>			
		CO3-98	
		CO3-99	
<p>²¹⁷ Compare DEIS at 4-109, Table 4.6 2-4 with NMFS Commonwealth Concurrence Letter, at 7, Table 3.</p> <p>²¹⁸ See E-mail exchange between John Brewer (Cardno) and Mike Tucker (NMFS) (hereinafter, "Cardno-NMFS emails") (attached), at 2-3 (email dated March 5, 2021 at 4:58 PM) (comparing radius of 1523 ft from concurrence letter to value of 152.28 ft generated by consultant's use of spreadsheet model, inter alia). document was obtained by Sierra Club from NMFS in response to FOIA request #DOC-NOAA-2022-000822 as record titled "2022-000822-1IR-UR-0099.pdf."</p> <p>²¹⁹ See <i>id.</i> at 1-2 (email dated March 9, 2021 at 9:43 AM).</p> <p>²²⁰ See <i>id.</i> at 1 (email dated March 9, 2021 at 10:37 AM).</p> <p>²²¹ Letter to U.S. Fish and Wildlife discussing the request to initiate formal consultation for the Commonwealth Project under CP19-502 (May 4, 2021 Biological Assessment), Table 2.2-2 (21-22 of BA), Accession 20210504-3050.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 82 May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>channel will subjected to sound levels resulting in Level B harassment. Indeed, as long as the dolphins are over 330 ft from the pile location, Commonwealth seemingly would proceed with pile driving, even though the result is that <u>the entire width of the shipping channel</u> will be ensonified to levels causing Level B harassment of dolphins (160 dB rms from impact sources).²²² Moreover, the DEIS states that Commonwealth actually only intends to stop operations of equipment that is within 50 ft of the marine mammal, not all equipment within the 330 ft observation buffer.²²³ Again, this apparently means that as long as the dolphins are more than 50 ft from the operating pile driving equipment, pile driving activities will commence, ensonifying the entire width of the channel to Level B harassment sound levels. Commonwealth also proposes to mitigate impacts by the use of a “soft-start” approach to pile driving, which entails gradually increasing the intensity of pile driving to allow free-swimming aquatic life to leave the area.²²⁴ But the “soft start” approach seemingly does not eliminate Level B harassment. Ostensibly, increasing the noise level until the marine animals are so disturbed by the noise that they interrupt their normal behavior to flee the area <i>is</i> Level B harassment.²²⁵ Although this</p>	CO3-99	CO3-99	See response to comment CO3-92.
	CO3-100	CO3-100	See response to comment CO3-92.
<p>²²² See DEIS at 4-112 (“Furthermore, the trained wildlife observer ceasing operations if any protected species is observed within 330 feet of active construction, operation, or vessel movement, would minimize impacts on these species.”).</p> <p>²²³ DEIS at 4-110 (“if a protected species is seen within 330 feet of active construction, operation, or vessel movement, implement all appropriate precautions to ensure its protection, including ceasing operation of any moving or mechanical construction equipment <i>closer than 50 feet</i> from the species and remaining on operational stand-down until it has departed the Project area of its own volition.”) (emphasis added); <i>see also</i> DEIS at 4-134 (“Commonwealth stated that a buffer zone of 50 feet around pile-driving areas would be monitored prior to and during pile driving. If a manatee is spotted in the buffer zone, work would not begin or would be halted until the manatee has left the area or has not been observed in the buffer for 30 minutes.”).</p> <p>²²⁴ See DEIS at 4-112 (“If fish, sea turtles, or marine mammals are in the vicinity of the Project at the beginning of construction activities, we would expect them to move away from the noise disturbances, beginning with the soft start of the pile driver, and continue their normal behavior beyond the affected zone and return once construction activities are completed.”).</p> <p>²²⁵ An act that “has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering” but which does not have the potential to injure a marine mammal is “Level B harassment.” 16 U.S.C. § 1362(18)(D); 50 C.F.R. § 216.3.</p> <p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> Page 83 <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i> May 23, 2022</p>			

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>measure might avoid more severe forms of take, such as Level A harassment or injury, there is no indication that it would preclude Level B harassment, or render it unlikely.</p>			
<p>The DEIS attempts to dismiss the behavioral disturbances to marine mammals as not significant, failing to address the plain fact that absent authorization from NMFS, Level B harassment is prohibited by the MMPA and therefore unlawful. Dismissing these impacts as not significant cannot be squared with the text and purpose of the MMPA, which was to provide stringent protections to marine mammals, even from disturbance. Authorization of such take requires not only that it have no more than a negligible impact on the stock, but also that it affects no more than a “small number” of the stock, which NMFS currently evaluates based on the proportion of the stock’s population that would be subject to the forms of take in question.²²⁶ For a stock such as the Calcasieu Lake bottlenose dolphin stock, which may have a population limited to only a few dolphins traveling in a single pod (as prior estimates were 0-6 dolphins), it is by no means clear that Level B harassment could be authorized.</p>			
CO3-101			
<p>The DEIS also <u>entirely fails</u> to show the radii for the area ensonified to the Level B harassment threshold from non-impulse sources (i.e. vibratory driving) for mid-frequency cetaceans.²²⁷ The only reason proffered for failing to report the area ensonified by the vibratory pile driving is that the NMFS [2018b] model “does not provide calculations for vibratory pile driving using noise attenuation[.]”²²⁸ In other words, the DEIS asserts that because the model it chose to use was not set up to account for the reduction in the radii for the ensonified area that would result from the use of bubble curtains, it chose to present no information at all about the extent of the area ensonified to Level B harassment thresholds by the vibratory driving. Furthermore, the DEIS fails to evaluate whether there is any other way to estimate the mitigated</p>			
CO3-102			
<p>²²⁶ See Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Construction of Two Liquefied Natural Gas Terminals, Texas, 85 Fed. Reg. 27365, at 27386, May 8, 2020 (explaining NMFS’s interpretation of “small numbers” requirement). NMFS asserts that it considers the take to affect only “small numbers” if the proportion of the stock or species population subjected to taking is under a third). <i>See id.</i></p>			
<p>²²⁷ 120 dB rms, or some adjusted threshold that should be determined by NMFS through consultation with that agency.</p>			
<p>²²⁸ DEIS at 4-110.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502		Page 84	
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,			
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>impact radii using any other analytical method. For example, the DEIS does not explain why it cannot reduce the source sound level by the reduction amount associated with bubble curtain use, and then use that reduced sound level as the starting input to calculate the radii through which noise will exceed the Level B harassment threshold.²²⁹ Consequently, the DEIS fails to provide the data necessary to evaluate whether Level B harassment will occur due to vibratory driving impacts that exceed the relevant threshold²³⁰ at distances from the piles that are greater than the buffer that Commonwealth has proposed to maintain between pile driving and any observed marine mammal. The reasons proffered for this failure are arbitrary and capricious, and constitute a failure to take a hard look at the impacts.</p>		CO3-103	CO3-103 See response to comment CO3-92.
<p>c) The DEIS Fails to Take a Hard Look at the Cumulative Impacts of Harassment on Bottlenose Dolphins from Pile Driving Noise in the Shipping Channel</p> <p>With regard to the cumulative impacts from pile-driving, the DEIS states:</p> <p>Only pile driving at the CP2 LNG project would have the potential to add cumulative effects with the Project. In filings with the FERC, CP2 LNG has indicated in-water pile driving associated with construction of the CP2 LNG marine facility would likely include the same noise mitigation techniques that Commonwealth would implement. Cumulative impacts on aquatic species from underwater noise associated with pile driving could occur if both projects conduct pile driving activities concurrently; however, if the geographic scope for underwater noise for the CP2 LNG project is reduced to the same distance as that of Commonwealth's, the areas in which impacts on aquatic species could occur would be limited in geographic scope and readily avoidable by most species.²³¹</p>			
<p>²²⁹ See, e.g., <i>Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Construction of Two Liquefied Natural Gas Terminals, Texas</i>, 85 Fed. Reg. 40250, 40252, 40252, Table 1, Notes 1-3 (July 1, 2020) (explaining that NMFS reduced source sound levels for vibratory pile driving by 7 dB to account for the use of a double bubble curtain); <i>id.</i> at 40259 (using a practical spreading loss model to estimate Level B harassment distances for the vibratory sources).</p>			
<p>²³⁰ 120 dB rms, or some adjusted threshold that should be determined by NMFS.</p>			
<p>²³¹ DEIS at 4-336.</p>			
<p><i>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502</i> <i>Filed by Sierra Club, Audubon Society, Center for Biological Diversity,</i> <i>Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</i></p>		<p><i>Page 85</i> <i>May 23, 2022</i></p>	

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>As detailed above, NMFS's October 2020 concurrence letter shows that, <u>even with mitigation</u>, the pile driving activities for the Commonwealth project will ensonify the entire width of the shipping channel to Level B harassment levels for bottlenose dolphins. The EIS should evaluate whether both of these projects, even with mitigation, will be ensonifying the entire width of the shipping channel to Level B harassment levels concurrently, creating a situation where dolphins could be caught between two large areas of Level B harassment causing "behavioral blockage" of the channel, preventing them from either moving north toward Lake Calcasieu or southward to return to the Gulf. FERC should evaluate the need to impose restrictions on the pile-driving activities for these projects to prevent noise impacts that would create a behavioral blockage in two portions of the channel at the same time. This evaluation should be based on calculations of what the radii for the Level B harassment thresholds are for both projects with the proposed mitigation.</p>		CO3-104	
<p>Notably, CP2 may be underestimating the extent of impacts from pile driving activities. The calculations that CP2 transmitted to NMFS on February 25, 2022 to initiate consultation show that CP2 used data for 96-inch piles in calculations of the radii affected by impact driving 120-inch and 144-inch piles, and used data for 72-inch piles to calculate the radii affected by vibratory driving of 120-inch and 144-inch piles.²³² The spreadsheets appear to indicate that CP2 simply used the values for the smaller piles, because those were the largest sizes for which data was available in the Caltrans compendium, and do not state that CP2 made any attempt to account for the reality that the piles they are using are much, much larger than the top size in the Caltrans data set (e.g., by extrapolating values based on trends in the Caltrans data set related to pile size). If CP2 is simply using the sound data for the much smaller piles without any adjustment to account for its use of much larger pile sizes, then CP2 may be underestimating the area of impacts that would constitute MMPA harassment.</p>		CO3-105	
<p>²³² See Letter from Peter G. Bell (Venture Global) to David Bernhart (NMFS) Re: Request for Initiation of Expedited Informal Consultation under Section 7(a)(2) of the Endangered Species Act for the Venture Global CP2 LNG and CP Express Project, Feb. 25, 2022 ("CP2 request for consultation"), at 3A-2, 3A-4, 3A-5, and 3A-7 (attached). This document was obtained by Sierra Club from NMFS in response to FOIA request #DOC-NOAA-2022-000822 as record titled "2022-000822-1IR-UR-0007.pdf."</p>			
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 86	May 23, 2022

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>However, the DEIS does not provide an opportunity for meaningful review of FERC's Required EFH Assessment because it is only in its initial stage. FERC only includes an initial EFH Assessment in the DEIS and the dates of the initial communications between the Applicant and NMFS. DEIS at 4-117. The Applicant's communications as outlined in the DEIS notably do not include data on formal EFH consultation, as the Applicant only initiated on the same day as the publication of this DEIS.²³⁴ The next crucial steps in the EFH process – the EFH Conservation Recommendations by NMFS and FERC's response to those recommendations – have not occurred yet, and thus will not be available during the public comment period for the public to review and provide feedback. For example, FERC states that "After reviewing the EFH Assessment, NMFS will provide recommendations to the action agency regarding measures that can be taken by that agency to conserve EFH." DEIS at 4-116. Thus, the public does not have a meaningful opportunity to review possible future recommendations to conserve EFH. Furthermore, NMFS recommends consolidated EFH consultations with interagency coordination procedures required by other statutes, such as NEPA and the ESA, to reduce duplication and improve efficiency. <i>Id.</i></p>		CO3-106	
<p>In this initial step of the EFH consultation in the DEIS,²³⁵ FERC has not adequately considered or provided mitigation for the demonstrated harmful impacts of other LNG facilities on fishers. Several National Oceanic and Atmospheric Administration (NOAA) documents demonstrate the high level of concern about the impacts of LNG facilities on fisheries in the Gulf of Mexico, but none of those impacts were considered as part of FERC's DEIS. First, in a 2017 Report from the National Essential Fish Habitat Summit, LNG was identified as one of three "emerging issues" in the Southwest Region:²³⁶</p> <p style="padding-left: 40px;">"In many Gulf of Mexico LNG facilities, seawater is used to reheat liquid natural gas and is then discharged back into the ocean at</p>		CO3-107	
<p>²³⁴ Accession 20220331-3034.</p> <p>²³⁵ FERC requests initiation of EFH consultation with NMFS and request that NMFS consider this draft EIS its EFH Assessment. DEIS at 4-117.</p> <p>²³⁶ NOAA Technical Memorandum NMFS-OHC-3, August 2017 ("NOAA Technical Memorandum"), available at https://spo.nmfs.noaa.gov/sites/default/files/TM-OHC3.pdf, and attached.</p>			
<p>Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network</p>		Page 89	May 23, 2022

Section 4.6.3 describes the revised EFH assessment reflecting Commonwealth's most recently proposed Project details. The EFH Assessment is included as appendix D.

See response to comment CO3-106.

Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
on an assessment of LNG facilities, the NOAA Fisheries Southeast Fisheries Science Center recommended that flow-through LNG systems in the Gulf of Mexico should be avoided in favor of closed loop systems. The negative impacts to fishery species and living marine resources in the Gulf from a single flow-through facility could be potentially severe, and cumulative impacts from multiple facilities were considered a threat to fishery resources.”			
The only mitigation proposed for impacts to fisheries and EFH is the Applicant’s wetlands mitigation proposal (<i>see Section V for wetlands discussion of these comments</i>). Additional mitigation should be included to minimize impacts to fisheries from the impacts discussed above.			
A. Impacts on Fishing and Recreational Vessel Travel in the Ship Channel			
The proposed Terminal site for the Project is at the southernmost extent of the Calcasieu Ship Channel, approximately 500 feet from its confluence with the Gulf of Mexico, on the eastern shoreline of the ship channel. DEIS at 4-167. During operations, security zones for LNG carriers in transit would impact recreational and commercial fishing vessels within the Calcasieu Ship Channel because they would be required to exit the security zone while the LNG carrier passes. DEIS at 4-168. FERC concludes that these delays would be temporary, and that security zone closures would be expected to last no more than one hour and are not expected to significantly impact recreational or commercial fishermen. <i>Id.</i> However, FERC later concludes that the moving security zone around LNG carriers has the potential to close the channel to traffic and recreation, and that, if all LNG export terminals proposed for Calcasieu Pass and Lake Calcasieu are constructed, this could occur more frequently. DEIS 4-345. According to the Calcasieu Ship Channel Traffic Study referenced in the DEIS, traffic in the channel is projected to double to 2,183 vessel calls in 2023. DEIS at 4-167. Approximately 800 of these new vessel calls are projected to involve LNG carriers. <i>Id.</i> During Commonwealth operations, up to 156 LNG carriers would call at the Terminal per year. <i>Id.</i> Due to the location of Commonwealth LNG at the mouth of Calcasieu Pass, FERC must assess whether the moving security zones around the LNG carriers calling upon Commonwealth will impact access to and from Calcasieu Pass and the Gulf of Mexico.		CO3-108	Security zones are addressed in sections 4.9.7, 4.9.11.2, and 4.13.2.6.
		CO3-108	
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502 Filed by Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		Page 91 May 23, 2022	


Non-Governmental Organizations
CO3 – Sierra Club, Audubon Society, Center for Biological Diversity, Louisiana
Bucket Brigade, Micah 6:8, RESTORE, and Turtle Island Restoration Network

Document Accession #: 20220523-5173		Filed Date: 05/23/2022	
<p>The increased vessel traffic to and from the export terminal, in tandem with the destruction of essential fish habitats, would further interfere with commercial fishing operations. This is one of the primary effects expected to result from similar LNG projects.²³⁸ For instance, experts commenting on Oregon's Jordan Cove Energy Project said the project would have undermined "decades of work to protect fishing opportunities" off the coast of Oregon, which risks undoing the advances that came about after "billions of dollars" were invested to restore salmon habitat in the region.²³⁹</p>	CO3-109		
<p>The DEIS also fails to consider the interplay between the tourism and commercial fishing and shrimping industries. Damage to the commercial shrimping industry could also lead to a decrease in the number of tourists, which in turn could decrease the number of customers available to local shrimpers. Not to mention, tourists may be dissuaded from buying locally-caught shrimp in an area dominated by petrochemical industry. While studies about this form of "seafood tourism" are not readily available about Louisiana, LNG-friendly coastal areas such as New South Wales in Australia find that domestic tourists expect to eat local seafood when</p>	CO3-110		
<p>²³⁸ A Briefing Paper from the Guide to Commercial Frameworks for LNG in North America, (November 7, 2006), available at https://www.beg.utexas.edu/files/energyecon/global-gas-and-lng/CEE_offshore_LNG.pdf, ("Commercial Frameworks for LNG"), available at https://www.beg.utexas.edu/files/energyecon/global-gas-and-lng/CEE_offshore_LNG.pdf and attached.</p>			
<p>²³⁹ "Science Shows Vital Fish Habitat Threatened by Proposed Oregon LNG Terminal," Columbia Riverkeeper (February 5, 2015) ("Fish Habitat Threatened by LNG"), available at https://www.columbiariverkeeper.org/news/2015/2/science-shows-vital-fish-habitat-threatened-proposed-oregon-lng-terminal, attached; see also Eric de Place and Paelina DeStephano, "Jordan Cove Energy Project, LNG Facility May Harm Water Quality, Salmon Runs," Sightline Institute (August 1, 2018) ("LNG May Harm Salmon Runs"), available at https://www.sightline.org/2018/08/01/jordan-cove-energy-project-oregon-could-harm-water-quality-salmon-runs/ and attached.</p>			
Comments on the Draft EIS for the Commonwealth LNG Project, CP19-502		Page 92	
Filed by Sierra Club, Audubon Society, Center for Biological Diversity,			
Louisiana Bucket Brigade, Micah 6:8 Mission, RESTORE, and Turtle Island Restoration Network		May 23, 2022	

Non-Governmental Organizations
CO4 – Healthy Gulf

Document Accession #: 20220523-5175		Filed Date: 05/23/2022	
		P.O. Box 66226 Houston, TX 77266 healthygulf.org	
23 May 2022			
Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street NE, Room 1A Washington, DC 20426			
RE: CP19-502 Commonwealth LNG Fossil Gas Export Terminal and associated facilities			
Dear Commissioners and Ms. Bose, I am writing on behalf of Healthy Gulf ¹ to incorporate the comments and content submitted by Sierra Club et al., regarding the Draft Environmental Impact Statement ("DEIS") prepared for the Commonwealth LNG fossil gas export terminal project. ² We advocate the "No Action" alternative. We also wish to clarify the Healthy Gulf position on carbon capture and sequestration ("CCS"), in partial reference to the Sierra Club et al., comments. CCS is not a solution for the climate crisis. While CCS may be feasible, or may be found to be feasible in the future by regulating agencies, Healthy Gulf maintains that CCS is a false solution that entrenches the fossil fuel industry even further at a time when we need to be transitioning to renewable energy.		CO4-1	
While Healthy Gulf agrees that there is inconsistency in the way other agencies have handled CCS proposals versus FERC, we maintain that CCS is ineffective, inefficient, unproven and entirely not in the public interest. Below, we summarize several ways the public is not served by CCS.		CO4-1	
CCS is prohibitively expensive, energy-intensive, unproven at scale, and does not reduce carbon in the atmosphere. ³ Of particular importance to targeted environmental justice and climate justice communities in Louisiana and Texas, the technology also poses environmental, safety, and health risks. ⁴ CCS technology entrenches reliance on fossil fuels rather than accelerating the needed transition to			
¹ Healthy Gulf is a diverse coalition of individual citizens and local, regional, and national organizations committed to uniting and empowering people to protect and restore the natural resources of the Gulf of Mexico. ² https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20220523-5151&optimized=false ³ Center for International Environmental Law, <i>Confronting the Myth of Carbon-Free Fossil Fuels: Why Carbon Capture Is Not a Climate Solution</i> , available at https://www.ciel.org/reports/carbon-capture-is-not-a-climate-solution/ ⁴ Center for International Environmental Law, <i>Carbon Capture and Storage: An Expensive and Dangerous Proposition for Louisiana Communities</i> , available at https://www.ciel.org/carbon-capture-and-storage-an-expensive-and-dangerous-proposition-for-louisiana-communities/			

Non-Governmental Organizations
CO4 – Healthy Gulf

Document Accession #: 20220523-5175	Filed Date: 05/23/2022
<p>cheaper and cleaner renewable energy.⁵ CCS masks the carbon emissions from an underlying source, which enables that source to continue operating rather than being replaced altogether. Adding carbon capture to coal- or gas-fired power plants makes them more expensive, less efficient, and less competitive than renewable energy projects, which are already the cheapest source of electricity for most of the country and most of the world.</p> <p>At every stage of their lifecycle – extraction, refining, transport, use and disposal – fossil fuels release a wide array of pollutants, many of which pose a known or suspected hazard to humans and the environment. For example, a recent study found that burning fossil fuels produces fine Particulate Matter (“PM”) pollution, and is responsible for millions of deaths worldwide.⁶ The study found that in 2018, approximately one in five deaths globally, or 8.7 million premature deaths, were linked to PM pollution from fossil fuels. Indeed, by requiring greater use of fossil fuels to power the CCS process itself, CCS may actually exacerbate these harms.</p> <p>In conclusion, Healthy Gulf remains opposed to CCS as a climate solution or a mitigation for carbon emissions. Despite any feasibility that could be determined by any agency, CCS serves as a tool to justify the continuation of the fossil fuel industry. In order to address the climate crisis, we must address the fossil fuel industry.</p> <p>Best regards,</p> <p></p> <p>Naomi Yoder, Staff Scientist Healthy Gulf PO Box 66226 Houston, TX 77266 {504} 525-1528 x 213 naomi@healthygulf.org</p>	CO4-1
<p>⁵ Greenpeace, <i>False Hope Why carbon capture and storage won't save the climate</i>, https://www.greenpeace.org/usa/wp-content/uploads/legacy/Global/usa/report/2008/5/false-hope-why-carbon-capture.pdf</p> <p>⁶ Kam Voltra et al., <i>Global mortality from outdoor fine particulate pollution generated by fossil fuel combustion: Results from GEOS-Chem</i>, 195 <i>Envtl. Research</i> 110734 (2021).</p>	
2	

Non-Governmental Organizations
CO5 – RESTORE

Document Accession #: 20220519-5031

Filed Date: 05/19/2022

RESTORE

P.O. BOX 233

LONGVILLE, LA 70652

(337)-725-3690

michaeltritico@yahoo.com

Kimberly D. Bose

Secretary

Federal Energy Regulatory Commission

888 First Street NE, Room 1A

Washington, D.C. 20426

Filing of Comments on Commonwealth LNG DEIS

Docket Nos. CP19-502-000 and CP19-502-001

Dear Secretary Bose,

Thank you for making the Draft Environmental Impact Statement available and giving the public an opportunity to submit comments.

As I said during the Scoping period, RESTORE’s primary concern is public safety.

I was very glad to see that the National Fire Protection Association Standard 59A for LNG projects has been extensively-incorporated into the DEIS.

However, it seems premature for FERC to conclude that your recommended mitigation measures intended to provide adequate fire protection for the offsite public are actually adequate before you get the Letter of Determination from a cooperating agency: the USDOTD Pipeline and Hazardous Materials Safety Administration

Furthermore, I have been unable to find the U.S. Coast Guard’s WSA (Waterway Suitability Assessment) which should have been included at least as an appendix so that the public could determine whether or not that basic component of your decision-making process resulted from a comprehensive study by the Coast Guard and whether or not that WSA is entirely relevant and adequate.

According to the Coast Guard document NVIC 01-2011“The WSA should go into as much detail as possible. Key assumptions should be identified and a sensitivity analysis performed to determine how much the outcome of the risk assessment is impacted by a slight change in any of the key assumptions.” Without that WSA being included in the DEIS it is impossible for the public to know if the Coast Guard performed that sensitivity analysis for the Calcasieu WSA.

On that topic of the suitability of the Calcasieu Ship Channel for safe LNG operations, there should have been extensive modeling of conditions now and if the Commonwealth and Venture Global CP2/CP Express tanker berths are ever built.

May 19, 2022

CO5-1

CO5-2

CO5-1

CO5-2

CO5-1 Safety of the Terminal is discussed in section 4.12. The project would not be allowed to be constructed without the PHMSA Letter of Determination, which was issued by PHMSA on August 2, 2022.

CO5-2 As noted in section 1.2.3, the USCG conducted an extensive review of Commonwealth's WSA and issued an LOR for the Project on March 7, 2019. The WSA report contains Sensitive Security Information (SSI) that is controlled under 49 Code of Federal Regulations (CFR) parts 15 and 1520. No part of the WSA report or record may be disclosed to persons without a “need to know,” as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. On April 19, 2022, Commonwealth provided a Waterway Suitability Assessment Update to the USCG, as requested in the LOR to be conducted once the Venture Global Calcasieu Pass Project was operational.

Non-Governmental Organizations
CO5 – RESTORE

Document Accession #: 20220519-5031 Filed Date: 05/19/2022	
The American Association of Port Authorities’ Facilities Engineering Committee once did a PowerPoint presentation: “Predicting and Mitigating Passing Ship Surge Effects in Harbors.” Surely the technologies known to that committee are precisely what should have been employed by FERC and its cooperating agencies, including the USCG, before issuing the DEIS.	CO5-2
At least FERC does, on PDF Pages 116 and 121 recognize that there are strong currents at the location of the proposed Commonwealth ship berths. How a Commonwealth tankership rotating in the proposed turning basin during a strong incoming or outgoing tide might affect the cryogenic hose connections and secure mooring of a CP2/CP Express tankership being loaded right across the Ship Channel should have been modeled by the Coast Guard. The information, if it really exists, should have been provided in the Draft Environmental Impact Statement. If the Coast Guard did not do such simulations its WSA is meaningless.	CO5-3
I am pleased, meanwhile, to see that FERC has at least begun to contemplate the big fire possibility: PDF Page 277: “The 37.5kW/m2 (approximately 12,000 Btu/ft2-hr) flux level is associated with producing pain in less than 1 seconds, first degree burns in 1 seconds, second degree burns in approximately 3 seconds, 1 percent mortality in less than 10 seconds, and 100 percent mortality in approximately 30 seconds , assuming no shielding from the heat, and is typically the critical heat flux for unpiloted ignition of common building materials (e.g., wood, PVC, fiberglass) and degradation of unprotected process equipment after approximate 10 minute exposure and to reinforced concrete after prolonged exposure.”	CO5-4
PDF Page 331: “The infrastructure and communities that could be impacted by a fire with 10,000 BTU/ft2-hr radiant heats extending offsite, include a residence , the John W. Stone Oil distribution center, and a portion of Louisiana Highway 27 (LA 27). The infrastructure and communities that could be impacted by a fire with 1,600 BTU/ft2-hr radiant heats <i>extending offsite, including the Calcasieu Pass LNG facility, the Monkey Island Pilot’s Dormitory</i> and the previously mentioned infrastructure and communities within the 10,000 BTU/ft2-hr radiant heats. The unignited vapor dispersion is extremely unlikely but, if it occurred, could extend <i>farther offsite</i> and could impact the following critical infrastructure: the Calcasieu shipping channel <i>ferry</i> , LA 27 on both sides of the Calcasieu Shipping Channel; <i>numerous local government buildings</i> including the Cameron Parish Health Unit, Court House, Police Jury Building, Cameron Parish Sheriff’s department, Cameron Fire Department, Cameron Parish School District Offices, the Cameron Parish Branch Library, and the Post Office. The following communities within the extent of the unignited vapor release from a catastrophic failure of one of the LNG storage tanks could also impact the following communities: <i>multiple residential homes, multiple RV parks, several places of worship, and the Cameron Parish Jail</i> . FERC staff did not locate any schools, daycare facilities, boarding and care facilities, or hospitals within the hazard footprints.”	CO5-4
However, FERC, you are shifting much of the burden for addressing the problem to other agencies AFTER the project gets your approval. That is an inherent signal for those cooperating agencies to simply take an easy way out thinking they can pass all bucks back to you. Every duty that any of those	

CO5-3	Safety of the Terminal and LNG vessels is discussed in section 4.12.1. As discussed in section 1.2.3, the U.S. Coast Guard (USCG), conducted an extensive review of Commonwealth's Waterway Suitability Analysis (WSA) and issued a Letter of Recommendation for the Project on March 7, 2019 noting the suitability of the Calcasieu Ship Channel to safely handle vessel traffic related to the Project in addition to the vessel traffic of other companies present on the Calcasieu Ship Channel. On April 19, 2022, Commonwealth provided a Waterway Suitability Assessment Update to the USCG, as requested in the LOR to be conducted once the Venture Global Calcasieu Pass Project was operational.
CO5-4	Comment noted.

Non-Governmental Organizations
CO5 – RESTORE

Document Accession #: 20220519-5031 Filed Date: 05/19/2022	
other agencies have should have been fully-completed BEFORE you issued the DEIS with your conclusion that your recommendations mitigate the fire tragedies that could happen.	CO5-4
Getting back to the incorporation of the NFPA Standard 59A, there should be in the DEIS an understandable explanation of the FERC statement that there will be “regulatory pre-emption in the event of a conflict.” Does that mean that if the NFPA Standard 59A is too stringent for the company to attain that FERC will allow the company to slide by with something less protective of its workers and the public?	CO5-5
Who will confirm that the applicant actually, if permitted, attains each of the requirements of NFPA 59A?	
On PDF Page 287-289 of the DEIS it was very interesting to see that FERC properly put “on hold” approval for issues related to flare design and emergency shutdown procedures and requested additional information. It really would have been even more proper to delay issuing the DEIS until all the information had been provided.	
Similarly, the HAZOP (Hazard and Operability Review) should have been made adequate and provided to FERC as requested, but before the DEIS was released.	CO5-6
Still in that section of the DEIS it does appear that pressure vessel issues and the company’s Hazard Mitigation Plan are not yet resolved which again should have been done before release of the DEIS.	
PDF Page 293 raised an issue that I could not confirm by looking at diagrams available and that is the allowance of the outer concrete shell of each big storage tank to be considered the 59A-required impoundment capable of containing the entire volume of spillage from the internal shell. I do not see how that full containment can happen since a split in the internal shell would allow liquefied methane to escape the cooling system somewhat and begin expanding. Even if the expansion did not occur it is hard to visualize the narrow space between the inner tank and the concrete shell being large enough to impound 50 thousand cubic meters. There should be a diagram in the DEIS proving, with the dimensions involved, how much the intraspace could hold.	CO5-7
Page-after-page shows that FERC is leaving until LATER various points of compliance with 59A.	
On PDF Page 314 FERC disagrees that the Commonwealth plan to protect the site from a 500-year storm surge is adequate. Pages 338, 339, and 439 justifiably require Commonwealth to prepare and file better information on floodwalls as well as seismic considerations. That is good news.	
FERC on PDF Page 335 seems to revert back to an attitude of over optimism when it addresses the threat to nearby people with “access and functional needs” and the 27% of the people with household income less than \$15,000 per year.	CO5-8
Certainly one thing that could be done to make sure that the elderly and disabled people within the zone of concern do not get burned up in their homes would be to require Commonwealth/Venture Global/CP2/CP Express to install throughout the region, a siren/speaker system such as exists in Calcasieu Parish, giving immediate public notification when an emergency first begins. Sheltering-in-place would not be an appropriate message, however. Instead the message would have to be “immediate evacuation.”	
Naturally, given the configuration of roads and the likelihood that a stampede of LNG facility employee vehicles trying to get away from spilling LNG would create almost immediate gridlock, the people covered in the environmental justice section of the DEIS likely would, as mentioned on PDF Page 335	

- CO5-5 Section 4.12.1.2 explains that 49 CFR 193 requirements prevail over NFPA 59 if there is a conflict. NFPA 59A is required by federal code to be followed. USDOT PHSMA is responsible for enforcing 49 CFR 193 and the incorporation of NFPA 59A. FERC staff has an interagency agreement for coordinating inspections and findings, including any possible violations of federal regulations or other unsafe practices.
- CO5-6 Safety of the Terminal is discussed in section 4.12. The notice to proceed with construction would be pending all appropriate permits and approvals of design being obtained by Commonwealth.
- CO5-7 Per section 4.12.1.5, 49 CFR 193 requires the impoundment capacity to be 110 percent of the liquid capacity which FERC staff verified. Vapor formed from a spill of the inner tank into the outer tank would vent through the tank relief valves, which FERC staff also verified.
- CO5-8 Emergency response, including public sheltering in place and evacuation are discussed in section 4.12. Commonwealth’s Emergency Response Plans will discuss communication methods with the public, including how local emergency planners will contact community members. Nearly all persons living nearby the proposed Commonwealth facility live on the opposite side of the Calcasieu river; therefore, any evacuation by Commonwealth facility personnel are unlikely to interfere with any evacuations of persons in the town of Cameron

Non-Governmental Organizations

CO5 – RESTORE

Document Accession #: 20220519-5031 Filed Date: 05/19/2022

suffer “disproportionally high and adverse” impacts, in other words, in a cascading conflagration scenario there would be no escape, just deaths.

CO5-8

The DEIS mentions on PDF Page 427 the “security zone” and exclusion zone for boats on the Ship Channel but the main impact seems to be, not what would happen with an actual fire, but the inconvenience of everyone else afloat having to wait for the LNG tanker to come in, get moored, or get unmoored and 12 miles past the end of the jetties. All of that needs to be made more clear and public.

CO5-9

On PDF Page 393 there is talk of “convoys” of LNG tankers coming and going. Before any further decision is made about convoys, the U.S. Coast Guard should have a Public Hearing or at least an active “outreach” to notify and get input from the shrimpers, commercial and sport fishermen, offshore oil company support vessels, petrochemical tankers, cargo ship and barge enterprises. During the Coast Guard outreach there should be full disclosure that the possibility of a very widespread fire is the real reason for inconveniencing everyone else.

Blisters and burns are terrible things. Please do not ignore or minimize that reality in your deliberations.

Thank you again for allowing comments.

Sincerely,

Michael Tritico, Biologist and President of RESTORE
Restore Explicit Symmetry To Our Ravaged Earth

CO5-9 The comment refers to text that describes the current operations of the Calcasieu Ship Channel. The situations discussed (i.e., security zones and vessel convoys) would not be caused by the Commonwealth project; rather vessels calling on the Commonwealth facility would be a part of the current standard operating procedures of the Calcasieu Ship Channel.

Non-Governmental Organizations
CO6 – RESTORE

Document Accession #: 20220523-5007

Filed Date: 05/23/2022

RESTORE
P.O. BOX 233
LONGVILLE, LA 70652
(337)-725-3690
michaeltritico@yahoo.com

May 20, 2022

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, D.C. 20426

Filing of Comments on Commonwealth LNG DEIS Pile Driving Issues
Docket Nos. CP19-502-000 and CP19-502-001

Dear Secretary Bose,

In the comments I filed during the Scoping opportunity I talked about the adverse impacts of noise. Pile driving is a major part of the noise pollution that will be caused if you allow this Project. Not only will it affect the humans nearby, but also the newly-discovered species of whale that swims offshore, the manatees that long to return to the Calcasieu ecosystem when it is restored, the sea turtles, fish, crabs, shrimp, other aquatic organisms, birds, and terrestrial wildlife. For you to repeatedly shift the responsibility for the issue to the National Marine Fisheries Service and for them to repeatedly downplay it to give you cover for your conclusions that all will be okay if the NMFS recommendations are followed - just sets up permitted noise mayhem which will cause sufferings so that a corporation can make money. That is not what the public trusted to be the outcome of the Environmental Impact Statement process.

CO6-1

Giving the company until the last second so that the public cannot see before the end of the comment deadline Monday whatever plan Commonwealth has for dredging noise impacts (PDF Page 26 and PDF Page 262) is not fair to us.

CO6-2

Waiting for the Project to be completed (PDF Page 28) to verify that the 55 dBA noise limit will be attained at the neighbors' locations is setting up a situation which could drag on for years while the company argues about how impossible it will be to modify their operations to quiet them down.

CO6-3

#####

In the DEIS PDF Page 62 says that 6,000 piles will be driven. Page 100 says that 7,000 piles will be driven. Either way that is going to cause an ongoing cacophony imposed on undeserving people and other living things.

CO6-4

- CO6-1

The impacts of noise on aquatic species are discussed in section 4.6.2.
- CO6-2

As detailed in section 4.11.2.4, noise impacts related to dredging would be confined to receptors at NSA 1 only. Commonwealth's proposed dredging sound mitigation plans have been incorporated into the FEIS.
- CO6-3

Section 4.11.2.4 includes our recommendation that Commonwealth modify operation or implement noise controls to ensure noise levels are below the 55 dBA threshold. FERC can only assess predicted noise levels based on modeling prior to operation of the Terminal. Assessment of actual noise levels requires the Terminal to be in operation.
- CO6-4

The 6,000 pile number on page 62 refers only to the Terminal foundations; whereas, the 7,000 pile number on page 100 refers to the Terminal foundations and stormwater protection wall. Section 4.11.2.4 has been revised to reflect that pile driving would be expected to require approximately 6 months to complete. In-water pile driving would require approximately 37 days to complete.

Non-Governmental Organizations
CO6 – RESTORE

Document Accession #: 20220523-5007 Filed Date: 05/23/2022	
PDF Page 157 shows that there will be 268,320 hammer strikes a day and that does not include the droning hum from the separate vibratory pile drivers.	
Page 260 says that the pile driving will last for 21 months. Yet FERC concludes that the cumulative effects of those acoustic insults will be insignificant. That is convenient for FERC and the company but it is, at best, speculative.	CO6-4
*** There is grave uncertainty about the very basis for what government agencies are using to assess adverse effects of noise:	
www.wsdot.wa.gov/research/reports/fullreports/891-1.pdf	CO6-5
“NOAA Fisheries currently uses 150 dB re 1 μPa as the RMS sound pressure level that may result in onset of behavioral effects (Caltrans 2015). The NOAA Fisheries Hydroacoustics Biological Assessment Guidance document25 considers that sound pressure above the 150 dB SPLrms level are expected to cause temporary changes in behavior, which might include startle response (although startle is not defined and has broad meaning to fish biologists), feeding disruption, and area avoidance (see footnote on page 25). There are substantial problems with the 150 dB SPLrms criterion. First, the origin of this criterion is unknown (Hastings 2008). That is, NOAA Fisheries and other agencies use the value but never document the scientific basis for this, or any other, value for the onset of potential behavioral effects...”	
Conversely there are numerous certainities about the great variety of negative effects of noise:	
www.fisheries.noaa.gov/insight/fish-noise	
“Ambient sounds and intra-/inter-species communication are important to fish and invertebrate survival. For many marine animals, sound plays a key role in navigation, finding food and mates, and avoiding predators.”	
royalsocietypublishing.org/doi/10.1098/rspb.2016.0839#:~:text=Noise%20can%20affect%20both%20the,mammals%20%5B28%2C29%5D	
“ We found experimental evidence for negative effects of anthropogenic noise on an individual's development, physiology, and/or behaviour in both invertebrates and vertebrates.”	
www.ncbi.nlm.nih.gov/pmc/articles/PMC4626970/	
“The scope, intensity, and frequency of anthropogenic noise pollution may	

CO6-5 Comment noted.

Document Accession #: 20220523-5007 Filed Date: 05/23/2022			
<p>be much greater than natural acoustic stimuli and, therefore, this type of noise pollution has been shown to have a series of adverse influences on marine species [9]. Current knowledge indicates that anthropogenic noise can directly or indirectly affect many marine organisms, causing auditory masking [7], leading to cochlear damage [37], changing individual and/or social behavior [38], altering body metabolism [35], and hampering embryogenesis [39]. Therefore, noise pollution will not only pose a great threat to individual marine organisms but also may affect the composition, and subsequently the health and service functions of the ecosystem. For instance, some studies have shown that anthropogenic noise caused a reduction in the catch rate of some commercial marine species indicating a decrease in the service function of the ecosystem for providing fishery products.”</p> <p>ore.exeter.ac.uk/repository/bitstream/handle/10871/36001/CorbettWT.pdf?s equance=1&isAllowed=y</p> <p>“This avoidance behavioural response of pelagic fish species to pile-driving noise playback has significant implications for natural populations where real pile-driving would be much more intense over much greater distances. Behaviourally, pile-driving noise playback appears to have caused a degree of avoidance by pelagic fish within an area with food...reduced feeding success.”</p> <p>www.biofund.org.mz/biblioteca_virtual/effects-of-pile-driving-noise-on- the-behaviour-of-marine-fish/</p> <p>“Studies on the effects of offshore wind farm construction on marine life have so far focussed on behavioural reactions in porpoises and seals. The effects on fish have only very recently come into the focus of scientists, regulators and stakeholders. Pile-driving noise during construction is of particular concern as the very high sound pressure levels could potentially prevent fish from reaching breeding or spawning sites, finding food, and acoustically locating mates. This could result in long term effects on reproduction and population parameters.”</p> <p>Although PDF Page 384 acknowledges that the possible CP2 LNG pile driving would add cumulative impacts, that page implies that 518 feet is the maximum distance from Commonwealth that noise could affect aquatic organisms.</p> <p>*** However, the Final Environmental Impact Statement for Venture Global, PDF Page 179 says : “The nearshore habitat area exposed to potential injury and disturbance level impacts on fish using impact hammer pile driving on the largest proposed piles (96-inch) would extend approximately 6.2 and 28.8 miles offshore from the site...” *** FERC should require consistency among all its Environmental Impact Statements. What is known and applied in one Docket proceeding should be known and applied in all similar proceedings. Since Venture Global, CP2/CPEXpress, and</p>	CO6-5	CO6-5	Comment noted.
	CO6-6	CO6-6	The final EIS for the Venture Global Calcasieu Pass Project states the noted impacts are theoretical, worst-case estimates for pile driving conducted without noise attenuation devices (e.g., bubble curtains or cushion blocks) and without accounting for the closely surrounding shorelines and stone jetties at the mouth of the Calcasieu River that would absorb much of the sound energy radiating from the pile driving. As noted in section 4.6.2.2 of the final EIS for the Commonwealth Project, Commonwealth would implement NMFS-recommended noise attenuation method, which would substantially reduce the impacts radii of noise related to pile driving.

Non-Governmental Organizations
CO6 – RESTORE

Document Accession #: 20220523-5007		Filed Date: 05/23/2022	
Commonwealth are all right together, pile driving noise affecting aquatic organisms almost <i>thirty miles</i> offshore must be considered in all those permit deliberations.***		CO6-6	
FERC says that the noise area “would be readily avoidable by most species.” Not all species will be able to avoid the area and even the ones who can avoid it could well see lethal interferences with their life cycles. I have previously submitted to FERC a Migratory Clock Diagram I drew based upon Louisiana Department of Wildlife and Fisheries data. It shows that there are three major pulses of migration involving numerous species of aquatic organisms. <u>21 months of pile driving will turn back six annual attempted migrations even by organisms that swim strongly-enough to avoid the noise.</u> Maybe one of FERC’s too late, after project implementation requirements, should be catch per effort comparisons to historic data at least for the most utilized species of fish, shrimp, and crabs.		CO6-7	CO6-7
##### FERC does recognize the turbidity increases that will result from pile-driving in the river but I will likely have comments on that in a subsequent filing. #####		CO6-8	CO6-8
An issue I have brought up to FERC previously, the potential for soil liquefaction and the catastrophic consequences that could occur should that happen, is also given speculative dismissal as insignificant in this DEIS.			
FERC does acknowledge on PDF Pages 102 and 309 that the soil types at the Project site are prone to “significant liquefactions” but thinks that it would take an earthquake to cause that liquefaction and since there are no major faults nearby, no worries.		CO6-9	CO6-9
When I was a child at College Oaks Elementary in South Lake Charles, sometimes during recess some of us would gather into a little mob and jump up and down in unison at a particular spot in the playground. Within minutes the dirt would turn to jelly and we would have something like a natural trampoline.			
The repetitive pounding caused the liquefaction. FERC should NOT be dismissing the possibility that a quarter of a million hammer strikes plus steady vibrations will liquefy soil, perhaps even across the Ship Channel under the Venture Global facility. The calculations for addressing subsidence and seismic compensations over there also disregarded soil liquefaction but now that the project managed to be finished, it would not take much of a shift beneath a heavy 200,000 cubic meter tank to distort both the inner and outer shells creating a breach and complete spillage.			
FERC should see:			

Section 4.11.2.4 has been updated to reflect that all (i.e., land based and in-water) pile driving is expected to require approximately 6 months to complete. As shown in table 4.6.2-4, in-water pile driving is expected to require a maximum of 37 days to complete.

Comment noted.

The safety of the Terminal is discussed in section 4.12.1. The article cited in the comment refers to the mechanics and dangers of soil liquefaction resulting from earthquakes. Soil liquefaction potential is discussed in section 4.12.1.5.

Document Accession #: 20220523-5007 Filed Date: 05/23/2022

nap.nationalacademies.org/read/25378/
Understanding and Predicting Soil Liquefaction

Soil liquefaction is one of many issues FERC is leaving for later but should have resolved **before** issuing the Draft Environmental Impact Statement. Telling Commonwealth LNG that it “should” file a report on “whether soil improvement is necessary to counteract soil liquefaction” lets the Project gain momentum that will be harder to break when delayed facts appear.

#####

PDF Page 62 raises an interesting issue. Since the stormwater protection wall surrounding the facility will be built on 100 feet long pilings spaced every 15 feet, an actual storm surge will break violently over the wall and slam into the 6 storage tanks full of LNG as well as into the liquefaction trains and all the pipes. There should be calculations of the forces that the breaking wave will exert and whether or not the LNG facilities can withstand them. Keep in mind that atop the storm surge are also wind-driven waves making the actual height of the encroaching water column more than just the number for storm surge depth.

#####

Sincerely,
Michael Tritico, Biologist and President of RESTORE
Restore Explicit Symmetry To Our Ravaged Earth

CO6-9

CO6-10

CO6-10 Safety of the Terminal is discussed in section 4.12.1. The floodwall would be designed to withstand at a minimum a 500-year return storm, rain, and associated storm surge event, with overtopping limited to ensure that internal flooding is of no consequence. The floodwall design would incorporate FEMA National Flood Hazard Layer elevations and the Storm Surge Exclusion Wall Design, which incorporate data from the February 2022 NOAA Global and Regional Sea Level Rise Scenarios for the United States.

Non-Governmental Organizations
CO7 – RESTORE

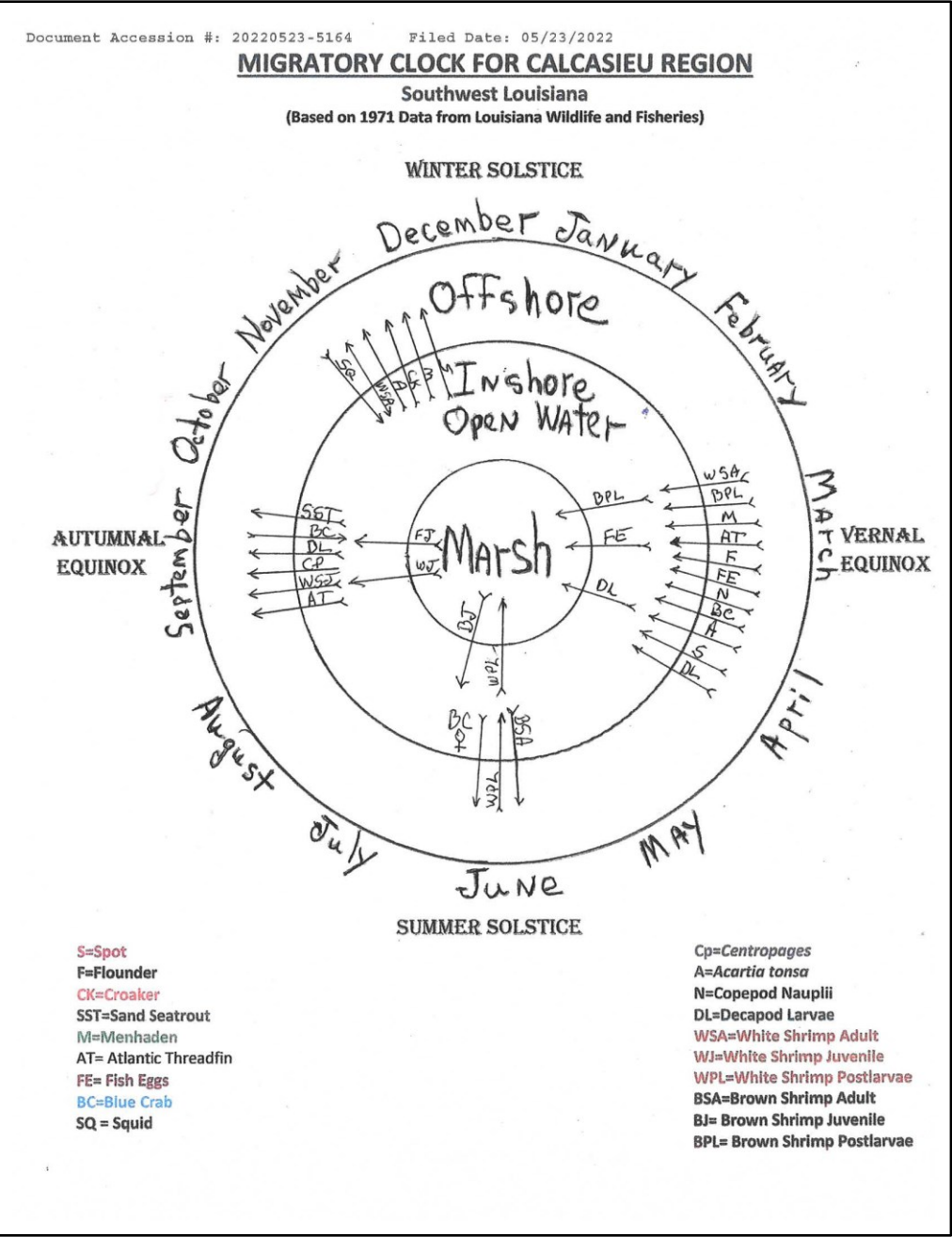
Document Accession #: 20220523-5029		Filed Date: 05/23/2022	
<p>RESTORE P.O. BOX 233 LONGVILLE, LA 70652 (337)-725-3690 michaeltritico@yahoo.com</p>			
Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street NE, Room 1A Washington, D.C. 20426		May 21, 2022	
Filing of Comments on Commonwealth LNG DEIS Light Pollution Docket Nos. CP19-502-000 and CP19-502-001			
Dear Secretary Bose,			
Across the Calcasieu Ship Channel from the proposed Commonwealth LNG Project is one that you have already allowed to go into operation after concluding that the adverse impacts from its lights would be negligible. That Venture Global Facility has more than drastically changed the illumination baseline along the lower Calcasieu River and out into the Gulf of Mexico. Now the place looks like the always-brilliantly-lit-up industrial complex in Calcasieu Parish.			
The Venture Global EIS kept referring to a Facility Lighting Plan that would “mitigate” interference with migratory animals by using diffusers, lenses, shields, having lights pointed downwards, and following the guidance provided in a certain set of guidelines issued by the U.S. Fish and Wildlife Service (Venture Global EIS PDF Page 736.) Some of the guidance was that flaring at night would be avoided and flaring during bird migrations would be avoided.		CO7-1	
FERC may have been naïve a few years ago when it thought that it would be okay to grant Venture Global’s permit, but now the reality is undeniable. What exists there now is an absolutely-unmitigated shining that makes a farce of the EIS and its assurances.			
Meanwhile the aquatic organisms that depend upon being able to see, cannot see because they are blinded by light so intense in their realm as to wash out normal visual cues. Birds cannot see stars they use for navigation and instead fly into barriers or turn and get off course, delayed perhaps so long that they run out of energy before being able to complete a trip over the water to the Yucatan. FERC is obviously incapable of comprehending the realities of adverse effects.		CO7-2	
PDF Page 147 of the Commonwealth LNG DEIS says they have a Facility Lighting Plan. Fantastic! FERC must be comforted and feel like it has been “covered” by that Plan just as it was confident in the Venture Global Facility Lighting Plan. Go look for yourself any night and see how mitigated things are at the mouth of the Calcasieu River.		CO7-3	
It is a subversion of the concept of assessing and addressing environmental impacts for FERC to say as it does on PDF Page 408 that “most wildlife in the area are acclimated to the noise and			

Document Accession #: 20220523-5029 Filed Date: 05/23/2022	
artificial lighting associated with these activities...,” subversion.	
It is an insult to all living things for FERC to use as an excuse for letting things get worse by saying (PDF Page 202) that lighting will be “consistent with nearby industrial/commercial facilities.” You said that, back during the Venture Global proceedings, and now, with that light pollution travesty blazing away your concept of consistency with absurdity is even more meaningful and disgusting.	CO7-4
PLEASE take your duties to the ecosystem more seriously than you perceive your obligation to the corporations. Stop herding your staff and consultants toward finding excuses to minimize adverse impacts. Let good biologists tell you the complete truths and impose correspondingly-appropriate real world constraints on every applicant.	
Get your people to read and think like the following scientists:	
www.nature.com/scitable/knowledge/library/animal-migration-13259533/	
Visible Cues “The most obvious cues used by migrants to find their way are visible cues such as local topography. Some species, including birds, insects and crabs, are able to make use of polarized light patterns, which are formed when light is scattered by airborne particles. As the sun’s position shifts throughout the day, the pattern of polarized light in the sky changes, allowing these species to find their way on cloudy days when the sun is not visible. When travelling at night, some migrants use the position of the stars based on the rotation of the night sky about a fixed point. In the northern hemisphere, this point is the Pole Star.”	
www.darksky.org/light-pollution/wildlife/	
“Plants and animals depend on Earth’s daily cycle of light and dark rhythm to govern life-sustaining behaviors such as reproduction, nourishment, sleep and protection from predators.	
Scientific evidence suggests that artificial light at night has negative and deadly effects on many creatures including amphibians, birds, mammals, insects and plants.”	
www.nature.com/articles/s41598-021-94355-6	
“pelagic organisms in Arctic and temperate regions strongly avoid artificial light”	
www.darksky.org/artificial-light-affects-zooplankton-in-arctic/	
“Light is an important cue for many biological processes. The study notes, ‘the zooplankton community is intimately connected to the ambient light regime.’”	
www.science.org/content/article/artificial-light-may-alter-underwater-ecosystems	
“The good news is that once researchers know how lights affect the behavior of various species, designers will be able to configure LEDs to emit spectrums of light that may be less	

CO7-4

The potential impacts of artificial lighting on wildlife are discussed in section 4.6.

Document Accession #: 20220523-5029		Filed Date: 05/23/2022	
<p>harmful to other organisms, but still provide humans with light where it is needed, according to Longcore. “Species are responding to cues sometimes that are orders of magnitude dimmer than what we can see, and that means that there’s a whole range of variation out there that we just don’t intuitively notice as humans,” he says. “To us it’s just dark, but there are many, many, many shades of dark.””</p> <p>en.wikipedia.org/wiki/Diel_vertical_migration</p> <p>“The phenomenon may be advantageous for a number of reasons, most typically to access food and avoid predators.^[8] It is triggered by various stimuli, the most prominent being response to changes in light intensity.”</p> <p>research-information.bris.ac.uk/ws/portalfiles/portal/259949744/Emelie_Brodrick_PhD_thesis_final_version.pdf</p> <p>“Light, in abundance or absence, can provoke a great variety of photomechanical changes in the compound eyes of crustaceans.”</p> <p>~~~~~</p> <p>Turbidity is something else that interferes with aquatic organisms that depend upon visual cues. Dredging, pile driving, tankerships rotating in a turning basin, ships drawing in and discharging cooling water - all stir up sediments.</p> <p>Dumping dredge spoil just west of the Calcasieu Pass Jetties exacerbates a colloidal mess that swirls in the gyre that the westerly coastal current creates as it tries to re-establish its course after being deflected southward by the rocks. (Venture Global may be facing a penalty for some kind of such activity at that location. FERC should not approve Commonwealth doing any such so-called Beneficial Use of Dredged Material since the “benefit” is never equivalent to the ecosystem cost of the dredging itself.) The jellied mass adds to the famous “Dead Zone” that migrates on past Holly Beach and to Texas. That is not “beneficial.”</p> <p>I will submit separately a Migratory Clock Diagram which I prepared in 1974 using Louisiana Department of Wildlife and Fisheries data. That diagram shows that there are three major migratory pulses of aquatic organisms coming in from the Gulf to the inland waters and wetlands and going back out again. FERC and its “cooperating agencies” showing some respect for those intervals would be a great and welcome change.</p> <p>All the light and noise pollution effects of the existing depletable-resource-based enterprises along the Calcasieu River and Ship Channel are killing the sustainable resources. That should not be encouraged by FERC through exercising a business-subsidizing façade under the guise of environmental protection.</p> <p>Sincerely,</p> <p>Michael Tritico, Biologist and President of RESTORE Restore Explicit Symmetry To Our Ravaged Earth</p>			
CO7-5		Commonwealth no longer proposes to use the DMPA south of Holly Beach. See section 4.4.2.2 for a discussion of Commonwealth’s newly proposed BUDM site.	
CO7-6		Comment noted.	



CO8-1

Filing noted.