APPENDIX L
Responses to Comments

Golden Pass LNG Export Project
Comments on the Draft EIS and Responses
Index

Document Number	Commentor
FEDERAL AGENCIES	
FA1	U.S. Department of the Interior
FA2	U.S. Senators John Cornyn and Bill Cassidy
FA3	U.S. Congressman Gene Green
FA4	U.S. Environmental Protection Agency
FA5	U.S. Army Corps of Engineers – Galveston District
FA6	U.S. Congressman Randy K. Weber
STATE AGENCIES	
SA1	Louisiana Department of Wildlife and Fisheries
SA2	Texas Senator Brandon Creighton
SA3	Texas Parks and Wildlife Department
SA4	Texas Senator Brandon Creighton
SA5	Texas Representative Gene Wu
COMPANIES AND ORGANIZATIONS	
CO1	Black Pearl Exploration
CO2	Consumer Energy Alliance
CO3	Sealark Investments, Inc.
CO4	Southgate Resources, LLC
CO5	Sterling Integrated Solutions, LLC
CO6	American Petroleum Institute
CO7	Industrial Energy Consumers of America
CO8	Sierra Club
PUBLIC MEETINGS	
PM1	VFW Post 4159, Starks, Louisiana
PM2	Sabine Pass High School, Sabine Pass, Texas
APPLICANT	
AP1	Golden Pass Products

FEDERAL AGENCIES

FA1 – U.S. Department of the Interior

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1001 Indian School Road NW, Suite 348
Albuquerque, New Mexico 87104

ER 16/0174
File 9043.1

May 11, 2016

VIA ELECTRONIC MAIL ONLY

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Subject: COMMENTS and RECOMMENDATIONS – Draft Environmental Impact Statement (DEIS) for the Proposed Golden Pass LNG Project; FERC Nos. CP14-517-000 and CP14-518-000; Louisiana and Texas

Dear Ms. Bose:

The U. S. Department of the Interior has reviewed the subject Draft Environmental Impact Statement for the Proposed Golden Pass Liquefied Natural Gas Project located Louisiana and Texas. The U. S. Fish and Wildlife Service (FWS) Louisiana Ecological Services Office offers the following comments and recommendations in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

FA1-1 As the proposed project is located in both Louisiana and Texas, FERC should require the Final EIS to include provisions stating that mitigation for impacts on jurisdictional wetlands be implemented in the state in which they occur.

We appreciate the opportunity to review this DEIS and provide these COMMENTS and RECOMMENDATIONS. If you have any questions, please contact Joshua Marceaux, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Southwest Louisiana National Wildlife Refuge Complex at (337) 774-5923.

Sincerely,

Stephen Spencer, Ph.D.
Regional Environmental Officer

cc: FERC Service List

FA1-1 See response to comment FA4-9 regarding Golden Pass' wetland mitigation plans.

FEDERAL AGENCIES

FA1 – U.S. Department of the Interior (cont'd)

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Draft Environmental Impact Statement;	) Project No. CP14-517-000
Golden Pass Liquefied Natural Gas Project;	) Project No. CP14-518-000
Louisiana and Texas	)

Certificate of Service

I hereby certify that I have this day caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated on this 11th day of May, 2016.

Stephen R. Spencer
Regional Environmental Officer
U.S. Department of the Interior
1001 Indian School Road NW, Suite 348
Albuquerque, NM 87104

2

FEDERAL AGENCIES

FA2 – U.S. Senators John Cornyn and Bill Cassidy

20160517-5046 FERC PDF (Unofficial) 5/16/2016 9:57:09 PM

United States Senate
WASHINGTON, DC 20510

May 16, 2016

Secretary Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street Northeast
Washington, DC 20426

Re: Golden Pass Products LLC and Golden Pass Pipeline, LLC
Docket Nos: CP14-517-000 and CP14-518-000

Dear Secretary Bose:

FA2-1 We are writing to express our support for the Golden Pass Products, LLC and Golden Pass Pipeline, LLC (collectively, "Golden Pass") project applications in light of the recent draft Environmental Impact Statement (EIS) issued by the Federal Energy Regulatory Commission (FERC) on March 25, 2016. As you know, Golden Pass is seeking approval to site, construct, and operate its proposed liquefied natural gas (LNG) export facility in Sabine Pass, Texas, and for modifications to its existing interstate pipeline. The draft EIS represents a critical milestone in the FERC permitting process. We appreciate FERC's thorough assessment of the potential impacts of this critical project and support the conclusion of the draft EIS that, with the proposed mitigation efforts, the construction of the new facility will not result in significant environmental impacts.

The proposed Golden Pass LNG export project will greatly benefit both Texas and Louisiana, as well as the entire United States. Specifically, the five-year construction phase could generate as many as 45,000 direct and indirect jobs nationwide. The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation. Further, over the life of the project, this $10 billion investment could generate more than $30 billion in economic gains and $4.6 billion in tax revenues at local, state, and national levels.

As you continue to review the proposed Golden Pass LNG export project, we urge you to support the draft EIS and to publish the final EIS on schedule.

Sincerely,

John Cornyn
United States Senator

Bill Cassidy, M.D.
United States Senator

FA2-1 The commentors' support of the Project is noted.

FEDERAL AGENCIES

FA3 – U.S. Congressman Gene Green

GENE GREEN
29TH DISTRICT, TEXAS

2470 RAYBURN
WASHINGTON, DC 20515
(202) 225-1688

256 N. SAM HOUSTON PKWY. E.
SUITE 29
HOUSTON, TEXAS 77060
(281) 999-5879

11811 I-10 EAST
SUITE 430
HOUSTON, TEXAS 77029
(713) 330-0761

WWW.HOUSE.GOV/GREEN

Congress of the United States
House of Representatives
Washington, DC 20515-4329

COMMITTEE ON ENERGY AND COMMERCE
- SUBCOMMITTEE ON ENERGY AND POWER
- SUBCOMMITTEE ON ENVIRONMENT AND THE ECONOMY
- SUBCOMMITTEE ON HEALTH RANKING MEMBER
- SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

DEMOCRATIC SENIOR WHIP

May 16, 2016

Acting Chairman Cheryl A. LaFleur
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Chairman LaFleur:

FA3-1 We are writing to express our strong support for the Golden Pass LNG project in Sabine Pass, Texas. This project, proposed by ExxonMobil and its partner, presents a significant economic development opportunity for the State of Texas and the entire country. It will maintain and strengthen the energy producers in Texas's oil and gas fields and promoting our national energy security. Therefore, we encourage you to move forward on the Golden Pass LNG Draft Environment Impact Statement as expeditiously as possible.

Golden Pass' investment will have dramatic economic impacts on a local, state, and national level. The construction will expand economic activity in South Texas by as much as $31 billion, with the construction activity generating up to 45,000 jobs over the same period. Golden Pass has proven its commitment to maintaining the natural resources, and the Golden Pass facility has been designed to meet or exceed all the applicable federal and state regulations. Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project.

Promoting exports of natural gas produced within our borders will help to secure our long-standing allies across the globe, while reducing dependence on energy supplies from energy markets not aligned with our national interests. Expanding markets for U.S. natural gas is consistent with U.S. trade and national security interests.

PRINTED ON RECYCLED PAPER

FA3-1 The commentor's support of the Project is noted.

FEDERAL AGENCIES

FA3 – U.S. Congressman Gene Green (cont'd)

FA3-1 (cont.) In addition to extensive support within the State, the Golden Pass project's positive impacts extend well beyond Texas' borders, and I believe that the permitting of the facility is in the best interests of the country. I therefore ask the Federal Energy Regulatory Commission to provide a both expeditious and favorable review of the Golden Pass application and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

Gene Green
Member of Congress

FEDERAL AGENCIES

FA4 – U.S. Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

May 16, 2016

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

Re: OEP/DG2E/Gas 2; Golden Pass Products LLC and Golden Pass Pipeline LLC; Docket Nos. CP14-517-000 and CP14-518-000

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Federal Energy Regulatory Commission (FERC) Draft Environmental Impact Statement (DEIS) for the Golden Pass LNG Export Project (Project). The purpose of the Project is to expand the existing terminal and pipeline in order to liquefy and export domestic natural gas to global markets.

EPA's review identified a number of potential adverse impacts to wetlands and aquatic resources. In addition, we request additional information regarding environmental justice communities, air quality, indirect effects, greenhouse gas emissions, and wetlands to provide a more complete analysis. For these reasons we have rated the Draft EIS as "Environmental Concerns – Insufficient Information" (EC-2). The EPA's Rating System Criteria can be found at http:/www.epa.gov/compliance/nepa/comments/ratings.html. EPA recommends that these issues be addressed in the Final EIS. We have enclosed detailed comments which clarify our concerns.

EPA appreciates the opportunity to review the Draft EIS. Please send our office one copy of the Final EIS when it is electronically filed with the Office of Federal Activities. If you have any questions or concerns, I can be reached at 214-665-8565, or contact Stephanie Meyers of my staff at meyers.stephanie@epa.gov or 214-665-6496, or Keith Hayden at hayden.keith@epa.gov or 214-665-2133.

Sincerely,

Robert Houston
Chief, Special Projects Section

Enclosures

DETAILED COMMENTS ON THE FEDERAL ENERGY REGULATORY COMMISSION DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE GOLDEN PASS LNG EXPORT PROJECT

BACKGROUND: The Golden Pass LNG Export Project consists of the Golden Pass Export Terminal Expansion and the Golden Pass Export Pipeline Expansion. These expansions will involve adding liquefaction facilities at the existing Golden Pass Import Terminal and modifying the existing Golden Pass Pipeline by constructing approximately 2.6 miles of new 24-inch diameter pipeline, associated compressor stations, and appurtenant facilities in order to liquefy and export domestic natural gas to global markets.

ENVIRONMENTAL JUSTICE

FA4-1 The DEIS provides county, parish and state level population demographics. It does not provide analysis of the surrounding communities within a 5 mile radius of the project to determine whether there are potentially affected low-income or minority populations. Therefore, based on the information provided, it is difficult to determine whether there may be disproportionate high and adverse human health or environmental effects on the surrounding population.

Recommendation:

- Utilize EPA's EJSCREEN, NEPAssist and/or other applicable tools to determine population demographics within 5 miles of the Project's location.
- Analyze the potential for Environmental Justice issues within 5 miles of the project area, using the methods outlined in the Council on Environmental Quality's guidance ("Environmental Justice: Guidance under the National Environmental Policy Act," December 1977), available at http://energy.gov/nepa/downloads/environmental-justice-guidance-under-nepa.
- Consider "Promising Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice and NEPA Committee, March 2016, available at http://epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews.
- Determine whether minority and low-income populations are present that have the potential to be affected by the proposed project. As part of that analysis, for example, we recommend that the Final EIS include a comparison of the demographics of the project area and suitable reference areas.
- Determine whether there may be disproportionate high and adverse human health or environmental impacts on the surrounding population, and list measures to address and mitigate those impacts.
- Develop a community engagement and outreach plan; state how outreach was conducted; and document community concerns. Include a discussion on how the concerns will be addressed, and include any agreed mitigation activities.

FA4-1 Section 4.9.7 has been updated to include a discussion of communities within 5 miles of the Project.

FA4-1 (cont.)

- Briefly discuss the potential scenarios associated with the project that could adversely impact the Environmental Justice community.
- Provide a brief discussion of the thermal radiation distance relative to Environmental Justice population of all applicable sources, including all sumps.

AIR QUALITY

FA4-2 The DEIS contains outdated information regarding the National Ambient Air Quality Standards (NAAQS). On October 1, 2015, EPA revised the ozone standard to 70 parts per billion. Please revise Section 4.0 – Environmental Impact Analysis and any modeling analysis that was based on the 2008 ozone standard to reflect the new standard.

INDIRECT EFFECTS

FA4-3 The DEIS did not fully consider the potential for increased natural gas production as a result of the proposed terminal and the potential for environmental impacts associated with these potential increases. Both FERC and the Department of Energy (DOE) have recognized that an increase in natural gas exports will result in increased production.[1] DOE has released a draft study that provides the kind of conceptual level analysis of the types of impacts that are likely to occur from increased production: "Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States."[2] DOE's work also recognizes that many of the potential impacts will vary considerably by the production location due to differences in local environment, regulatory structure, and other factors. We recommend that this study be considered as part of the analysis for this project.

CLIMATE

Greenhouse Gas Emissions:

FA4-4 The DEIS included analysis of the greenhouse gas (GHG) emissions associated with construction of the project, and annual emissions from the operation of the liquefaction facility, but did not include estimates of the GHG emissions associated with the production, transport, and combustion of the natural gas proposed to be exported. Because of the global nature of climate change, even where the ultimate end use of the natural gas occurs outside the US, these additional greenhouse gas emissions attributable to the project would affect the U.S. Because of these impacts, it is appropriate and consistent with NEPA and CEQ regulations to consider and disclose these types of emissions in NEPA analyses. We also note that FERC's DEIS for the Jordan Cove Energy and Pacific Connector Gas Pipeline project included useful calculations of

[1] Effect of Increased Natural Gas Exports on Domestic Energy Markets, as requested by the Office of Fossil Energy. US Energy Information Administration. January 2012 (http://energy.gov/sites/prod/files/2013/04/f0/fe_eia_lng.pdf) and Cameron LNG EIS, Appendix L (Response to Comments), p. L-36 (http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13530753)

[2] Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States. DOE. (http://energy.gov/sites/prod/files/2014/05/f16/Addendum_0.pdf)

FA4-2 Section 4.11 has been updated with EPA's revised ozone standard.

FA4-3 The commentor contends that the proposed Project and other planned LNG export projects, if constructed and operated, will cause an increase in environmental impacts from induced gas production and pipeline transportation. While it is reasonable to assume that export of natural gas could result in increased natural gas production, where this gas would come from is speculative and would likely change throughout the operation of the project. Further, the development of natural gas is not the subject of this EIS nor is the issue directly related to the proposed Project. Production and gathering activities, and the pipelines and facilities used for these activities, are not regulated by FERC, but are overseen by the affected region's state and local agencies with jurisdiction over the management and extraction of the resource. Determining the well and gathering line locations and the environmental impacts associated with their development and operation is not feasible as the market and gas availability at any given time would determine the source of the natural gas.

As part of its National Environmental Policy Act (NEPA) analysis of proposed projects, the FERC often considers the potential environmental impacts of natural gas production and development occurring in the project area as part of the cumulative impacts analysis to the extent that there is meaningful information available to assist the FERC's decision-making process in a particular proceeding (as indicated in our cumulative impacts discussion [section 4.13]). With respect to production and development activities that are not within a project area, the FERC determines whether such activities should be included EIS based upon a fact-specific analysis.

FA4-4 The 'life-cycle' cumulative environmental impacts of exploration, production, transportation to the proposed Golden Pass Project, shipment of LNG overseas, and ultimate combustion of the gas in foreign nations are far beyond the jurisdictional authority of the FERC (and much of it is beyond the authority of any federal or state government entity in the United States). Nor can those impacts be easily or reasonably calculated given the unknown elements in the chain. Golden Pass has not identified specific LNG vessels that would ship the LNG abroad or the exact customers for the gas. Without knowing the final destination(s) of the LNG or ultimate use of the subsequent natural gas, it would not be possible to calculate the environmental impacts associated with its overseas shipping.

FA4-4 (cont.) GHG emissions from end use of the gas exported by the facility, and we recommend that similar calculations be considered as part of the analysis and decision making for this project.

DOE has issued two documents that are informative in assessing the GHG emissions implications of the project. In addition to the Addendum mentioned above, the NETL's report, entitled "Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States"[3] is relevant. Together, these reports provide a helpful overview of GHG emissions from all stages of a project, from production through transmission and combustion. The NETL report includes comparative analysis of GHG emissions associated with other domestic fuel sources and LNG exports as they relate to other possible fuel sources in receiving regions. This information can help decision makers review foreseeable GHG emissions associated with the increased production and export of natural gas compared to other possible fuels. EPA recommends that both DOE reports be considered as part of the decision making process for this project and incorporated by reference in future NEPA documents. FERC may also want to consider adapting DOE's analysis to more specifically consider the GHG implications of projects.

The FERC states no standard methodology exists to determine the proposed Project's incremental contribution to GHGs that would have physical effects on the global environment. Peer-reviewed methodologies exist for measuring incremental contributions to the effects of climate change; we recommend removing this language in the Final EIS. For purposes of informing decision makers and the public, we recommend using estimated direct and indirect GHG emissions levels as a general proxy to compare emissions levels from the proposal, alternatives, and potential mitigation.

CONSULTATION AND COORDINATION

Table 1.5-1, on page 1-10, lists the consultations FERC must complete. In addition to the consultations listed, EPA continues to recommend that the following be added to the table:

FA4-5

- EPA – section 1424(e) of the Safe Drinking Water Act of 1974 – The DEIS states "The Chicot Aquifer in Louisiana has been designated by EPA as a sole-source aquifer (EPA 2008). The Pipeline Expansion, MP 66 Compressor Station, TGP Interconnect, TETCO Interconnect, and Transco Interconnect in Louisiana would overlie a sole-source aquifer". Please consult EPA for potential impacts to the Chicot SSA.
- FEMA – Executive Order (EO) 11988 – Many project components will be built inside FEMA designated 100-year flood zones. While levee and other protections are in place, development inside a floodplain still requires consultation with FEMA or a designated county Floodplain Administrator.
- NRCS – Farmland Protection Policy Act (FPPA) – Temporary and permanent impacts to prime farmland soils are described in the DEIS. Regardless of the amount of soils impacted, consultation with the National Resource Conservation Service, or their designated local representative, needs to occur.

[3] Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States. DOE/NETL-2014/1649 (http://energy.gov/fe/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states)

L-11

FA4-5 The U.S. Environmental Protection Agency's (EPA's) request is noted. However, table 1.5-1 lists all major permits and consultations required for construction and operation of the Project. Golden Pass is still coordinating with federal, state, and local agencies regarding impacts from the Project and any additional measures recommended by these agencies.

FA4-5 (cont'd)

- RRC – Please file documentation of the coastal consistency determination from the Texas Railroad Commission prior to construction.

The opinions of resource agencies tasked with the duty to carry out consultation are important and should be included in the FEIS. Without these opinions, interested parties are not able to fully assess the impacts of the project.

GENERAL COMMENTS

FA4-6

- Page 4-158 classifies daytime hours as 7:00am – 10:00pm, and says construction will take place between these hours when feasible. We recommend not defining 10:00 p.m. as daytime. The vast majority of construction projects with noise sensitive receptors adhere to a 7:00am – 7:00pm construction schedule. Please modify the description of daytime hours and adhere to a 7:00am – 7:00pm construction schedule as much as possible.

FA4-7

- Page ES-2 of both the Administrative Draft EIS and DEIS contain information under the paragraph titled "Terminal Expansion" regarding the facilities that would be included in the expansion. Please clarify any changes made to the facilities included in the expansion, and potential changes in impacts due to these changes.

FA4-6 No update to the designated daytime hours is necessary. For purposes of the noise analysis, the daytime hours comply with the city of Port Arthur's noise ordinance requirements.

FA4-7 The Executive Summary is provided to give a general overview of the Project and the associated impacts. Section 2.2.1 describes the facilities proposed as part of the Terminal Expansion.

ATTACHMENT 1

Golden Pass LNG Export Project
Draft Environmental Impact Statement
General and Specific Section 404 CWA Comments

Draft Resource Reports – previous comments

FA4-8

- Comment: EPA previously commented on the draft Resource Reports for this project, and Golden Pass responded to our comments. However, the Draft EIS does not appear to incorporate many of the issues we raised or recommendations we made. Specifically, EPA made the following comment in regards to wetlands impacts and water dependency.

  > "While Golden Pass explains why the project needs to have shipping access, and thus why it is water-dependent in that respect, it doesn't explain why other aspects of the project that will impact waters of the U.S. (facility expansion, laydown areas, pipeline connections, etc.) are water-dependent. Why couldn't these facility components be located in areas that are not waters of the U.S?"

  Recommendation: Address the water-dependency of various aspects of the proposed project that will impact wetlands in the Final EIS and explain why they could not be located in areas that don't impact waters of the U.S.

Draft Mitigation Plan – previous comments

FA4-9

- Comment: EPA provided extensive comments to Golden Pass on the draft mitigation plan, and posted comments on the FERC docket. However, our comments were not addressed in the DEIS.

  Recommendation: Provide a detailed response to our comments on the draft mitigation plan in the Final EIS.

Alternatives Analysis

FA4-10

- Comment: While the Port Arthur Liquefaction alternative may impact largely un-impacted habitat, it is not clear to us that this means it would impact more wetland habitat, than the proposed alternative.

  Recommendation: Provide the details of any analysis done to arrive at this conclusion. In particular, discuss potential wetland impacts of this alternative versus those of the proposed alternative.

FA4-11

- Comment: One of the criteria used to eliminate alternatives was the permitting and authorization processes for constructing and operating additional facilities would

FA4-8 Not all aspects of the Terminal Expansion Project are water dependent; however, proximity to the existing Terminal results in the ability to use existing facilities and limits the facilities that need to be constructed. See section 3.3.1 for our evaluation of alternative sites for the Terminal Expansion within upland areas in a 4-mile radius of the existing terminal.

FA4-9 Golden Pass is continuing to coordinate with the Army Corp of Engineers (COE), EPA, and state agencies on its Wetland Mitigation Plan. Incorporation of any comments received from agencies into Golden Pass' final mitigation plans would be coordinated as part of its Section 404 permit with the COE.

FA4-10 As of the filing of this EIS, the applicant for the Port Arthur Project had not yet filed impact acreage numbers for its project. However, given the proposed location of the project as well as the current land use of the land in that area, which is mainly wetlands, we estimated that the Port Arthur Project would result in similar or larger wetland impacts.

FA4-11 The Commission's policy is to ensure that all proposed projects are environmentally sound and consistent with public safety and then leaves it to the market to determine which projects are constructed. We therefore review applications for gas projects as they are filed, based on individual merits. The Energy Policy Act of 2005 directs the Commission to establish a schedule for the regulatory review by the Commission and relevant federal and state agencies that ensures "expeditious completion" of proceedings. Therefore, requiring expansion of existing or proposed facilities to meet the needs of the Golden Pass Expansion Project would delay Commission review of the Project significantly and would be inconsistent with the Energy Policy Act of 2005.

FA4-11 (cont.) substantially delay meeting the anticipated timeline for the Terminal Expansion. While logistical constraints can be used to eliminate alternatives, there needs to be an adequate justification as to why the meeting the timeline for terminal expansion is crucial to the project.

Recommendation: Provide a detailed justification as to why meeting the timeline for terminal expansion is crucial to the project.

FA4-12
- Comment: The Draft EIS states that the surrounding areas at many of the existing LNG terminals contain wetlands and would have impacts similar to, or greater than, the preferred alternative. It is unclear what information was used to make this determination.

  Recommendation: Explain in detail the information used and analysis conducted to determine the amount of wetlands or environmental impacts at existing LNG facilities would be greater than, or equal to, the preferred alternative.

FA4-13
- Comment: Section 5.1.13 describes an alternative expansion site comprised of upland habitat 0.3 miles from the existing facility. The old spoil bank upland habitat at this site are largely lower quality wetlands that have developed on the spoil bank. The proximity of this site to the existing facility suggests that a facility design using this site may well be possible. Wetland impacts could potentially be less than the proposed alternative when considering wetland quality and function.

  Recommendation: Analyze the alternative site while factoring in wetland quality and function when determining impacts to wetlands. Include this analysis in the Final EIS.

Wetlands Impacts and Mitigation

FA4-14
- Comment: The Draft EIS does not explain why the proposed location of the facility expansion laydown area is the best alternative.

  Recommendation: The Draft EIS should include detailed arguments for why the laydown area proposed is the best alternative.

FA4-15
- Comment: There are 8.9 acres of wetlands impacts associated with the terminal expansion that will be allowed to revert to preconstruction conditions. There is not a detailed explanation of how the impacted wetlands are expected to regenerate naturally, or what steps will be taken if the wetlands do not regenerate.

  Recommendation: EPA recommends the 8.9 acres of impacted wetlands be actively restored by planting all areas with appropriate species and density, and monitor restoration success based on preconstruction conditions. If fully successful mitigation cannot be accomplished, EPA recommends mitigating for any loss of wetland function.

FA4-12 Our assessment of impacts related to expansion of existing terminal facilities was based on our knowledge of each of the existing facility locations as described in their applications. Additionally, given that we can reliably estimate the footprint of a single train, we are able to estimate impacts from expansion of the existing facilities.

FA4-13 Section 5.1.13 is a summary of our conclusions. The full assessment of the alternative site can be found in section 3.3.1. Section 3.3.1 of the EIS has been updated to include additional details regarding our conclusions of the upland site 0.3 mile away. Although the quality of wetlands surrounding TEA-1 may be lower than the proposed site, relocating the terminal expansion to TEA-1 would move the facility closer to and abutting the town of Sabine Pass. This could result in increased impacts to the residents, including visual, air, and noise.

FA4-14 Since the uses associated with the laydown area would require the area to be located adjacent to the Project area, and the surrounding area is also wetland, we determined that no viable alternative was available.

FA4-15 Golden Pass would adhere to our Procedures for restoration of wetlands impacted during construction. This would include consultation with federal and state agencies to develop a project-specific wetland restoration plan.

FA4-16

- Comment: The Draft Mitigation Plan does not meet the requirements of 40 CFR Part 230 Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (the 2008 Mitigation Rule), and therefore, it does not meet the requirements of the Guidelines either. Specifically, the proposed mitigation is "out of kind." While it can be argued that trading low quality, invasive, Chinese tallow scrub-shrub wetlands and high palustrine emergent marsh (*Spartina spartinae*) located on old dredged material disposal areas, for relatively high quality brackish, tidal marsh, is a good trade, we don't believe the same can be said for trading palustrine emergent marsh, not located on the dredged material disposal sites.

  Recommendation: Propose alternate, in-kind compensatory mitigation for impacts to palustrine emergent wetlands that are not located on the former dredged material disposal area.

- Comment: The wetlands that would be impacted, and those proposed to be created with dredged material as mitigation, will not have the same land loss rates in the future. Impacted wetlands will have considerably lower land loss rates than will the created marshes. While this is not significant over relatively short time scales (i.e. 1-10 years), it will become more significant over longer time scales (20 years and beyond).

  Recommendation: Develop a solution to the problem of the proposed mitigation declining in acreage, over time, at a higher rate than the impacted wetlands. We recommend monitoring the created mitigation marsh acreage, and to consider periodic additions of new created marsh to compensate for conversion to water over time. Estimates of future additional marsh mitigation needs could be adjusted for any land loss that would otherwise occur at the impact wetlands.

- Comment: It is not clear whether the mitigation acreage proposed is acres of wetland only, or a mix of wetland and water. While an appropriate mix of wetland and water, interspersed in appropriate patterns, is probably more ecologically desirable than a solid marsh, it is important that acres of wetland aren't being exchanged for mixed wetland/water acres. In other words, if the mitigation wetland is a mix of marsh and water, the acreage necessary for full compensation will be higher than if it was solid wetland, regardless of other possible multipliers based on function.

  Recommendation: Clarify whether the acreage of proposed restored mitigation marsh is based on wetlands only, or whether it is intended to explicitly include a mix of wetlands and water. If the latter, clarify whether the number of acres of mitigation was increased to account for this. Regardless of whether the mitigation is a mix of wetland and water, the actual acreage of wetland proposed as mitigation should be a multiplier that is a function of the actual acreage of wetland to be impacted, and implications of any functional assessment done.

FA4-16 See response to comment FA4-9 regarding Golden Pass' wetland mitigation plans.

FA4-17

- Comment: The proposed standard approach to restoring wetland impacts from pipeline construction, includes only allowing natural revegetation, or perhaps seeding with an unidentified plant species, presumably for erosion control. This approach may not be very effective in some wetlands.

  Recommendation: We recommend monitoring natural vegetative recruitment into wetlands impacted by pipeline construction, and if natural vegetative recruitment does not result in an appropriate plant community after 1 year, we recommend planting the area with appropriate species of transplants at an appropriate planting density.

FA4-18

- Comment: The proposed approach of managing pipeline right of ways by mowing and/or application of herbicides, results in impacts to wetlands that were crossed by the pipeline. It is not clear if areas that are to be mowed are being counted as impacted wetland, or if mitigation for these impacts was proposed.

  Recommendation: Mitigate for lost wetland functions resulting from right of way management practices.

FA4-19

- Comment: It is unclear how much time will elapse between wetland impacts resulting from project construction (either facility or pipeline) and mitigation completion.

  Recommendation: If necessary, mitigate for any temporal losses in wetland function due to project wetland impacts.

- Comment: It does not appear that mitigation is proposed for permanent loss of trees and shrubs, or for temporary impacts to herbaceous vegetation.

  Recommendation: Mitigate for all permanent impacts to forested or shrub wetland habitat, as well as for temporal impacts to herbaceous wetlands.

FA4-20

- Comment: It is possible that impacts to PEM wetlands will not be of short duration. It is reasonably likely that at least some PSS wetlands will not be restored without planting within 2-4 years. Conversion of forested wetlands (PFO) to herbaceous wetlands is a major change, and should be mitigated.

  Recommendation: Plant impacted PEM and PFO wetlands with appropriate plant species at an appropriate density, and fully mitigate for conversion of PFO to PEM (bank credits). Alternately, monitor natural restoration of PEM wetlands to preconstruction conditions, plant PSS wetlands, fully mitigate for conversion of PFO wetlands to PEM wetlands, and mitigate for temporal losses due to lags in restoration of PEM and PSS wetlands.

FA4-17 See response to comment FA4-15 regarding post-construction restoration of wetlands.

FA4-18 Golden Pass is still developing its wetland mitigation plan for wetlands within Louisiana. See response to comment FA4-9 regarding Golden Pass' wetland mitigation plan.

FA4-19 See response to comment FA4-9 regarding Golden Pass' wetland mitigation plan.

FA4-20 See response to comment FA4-9 regarding Golden Pass' wetland mitigation plan.

FA4-21

- Comment: Section 4.4.3 states direct and long-term impacts to wetlands will be mitigated, but does not mention mitigation for indirect impacts to wetlands.

  Recommendation: Change the statement in Section 4.4.3 to reflect that indirect impacts also require mitigation.

Dredged Material Management Plan and Sediment Testing

FA4-22

- Comment: The Dredged Material Management Plan concludes that dredged material from the Material Offloading Facility and the access channels is not suitable for marsh creation or nourishment at J.D. Murphree Refuge.

  Recommendation: Provide a detailed explanation for the conclusion that this sediment is not suitable for marsh creation or nourishment. With containment, even highly unconsolidated clays and sediments with high organic content can effectively be used to nourish degraded marshes. Beneficial use of dredged material for marsh creation is encouraged as long as the material is of sufficiently high quality and is free of unacceptable levels of contaminants. If the sediment quality is unknown, EPA recommends testing to determine potential contamination.

- Comment: The sediments from the vicinity of the proposed Supply Dock and the flotation/access channels have not been tested for contaminants. We believe there is sufficient uncertainty to support the need for testing.

  Recommendation: We recommend testing the dredged material from these locations, and providing the data for review prior to issuance of the Corps' 404 permit.

- Comment: While the most recent data does not suggest sediment from the ship slip is contaminated, 2010 testing appeared to indicate the sediments contained a number of chlorinated pesticides in concentrations above ERM values.

  Recommendation: In light of the conflicting data presented in the 2010 and 2015 testing, EPA recommends testing maintenance dredged material from the Ship Slip annually, or before each dredging event. This testing frequency could be reduced to every three years, if after three testing events, no exceedances of water quality criteria in the elutriate samples, and no exceedances of ERM concentrations have occurred, and data quality is acceptable for making such determinations.

Cumulative Impacts

FA4-23

- Comment: Table 4.13.1-1 lists past, present, and reasonably foreseeable actions considered in the cumulative impact analysis but does not include a number of actions

FA4-21 Section 4.4.3 has been revised to remove reference to direct impacts on wetlands. Mitigation for impacts on wetlands would be coordinated as part of Golden Pass' COE permit.

FA4-22 Golden Pass is continuing to coordinate with COE, EPA, and appropriate state agencies regarding its Dredge Material Management Plan and sediment testing needs. Requirements for sediment testing and beneficial use of dredged material would be assessed as part of Golden Pass' 404 permit.

FA4-23 The cumulative impacts analysis assesses historical actions as part of the baseline; therefore, the temporal extent of cumulative actions would start in the recent past and extend out for the expected physical operational service life of the projects considered. Additionally, we assess impacts for various spatial scales depending on the resource.

FA4-23 (cont.)

that we believe should be listed for their impacts to coastal wetlands. Examples include the Gulf Intracoastal Waterway, the railroad that affected the wetlands in the vicinity of the facility, the spoil bank at the facility site, Keith Lake Fish Pass, oil and gas production (fluid withdrawal induced subsidence), and impoundment for wildlife management.

Recommendations: EPA recommends that FERC include the above historic actions in their cumulative impacts analysis. In addition, we recommend that FERC analyze cumulative impacts to wetlands at multiple spatial scales, including Sabine Lake estuary, the Texas coast, and the northwestern Gulf of Mexico coast.

FEDERAL AGENCIES

FA5 – U.S. Army Corps of Engineers – Galveston District

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON TX 77553-1229

May 16, 2016

REPLY TO
ATTENTION OF:

Policy Analysis Branch

SUBJECT: Permit Application SWG-2004-02118 (formerly 23260), FERC Docket # CP14-517-000 and CP14-518-000; USACE Comments regarding Draft Environmental Impact Statement for Golden Pass Products' proposed Liquefaction and Pipeline Expansion

Kimberly D. Bose
Federal Energy Regulatory Commission (FERC)
888 First Street, NE, Room 1A
Washington, DC 20426

Dear Ms. Bose:

This is in reference to Golden Pass Products' (GPP) proposed Liquefied Natural Gas (LNG) Liquefaction and Pipeline Expansion Project (FERC Docket # CP14-517-000 and CP14-518-000). GPP is requesting permission to modify their permitted facilities to construct a Liquefaction facility (referred to herein as the Liquefaction Facility) and to construct a new segment of pipeline to transport domestically produced natural gas (referred to herein as the Pipeline Expansion). The Liquefaction Facility is located adjacent to the existing GPP LNG Terminal, in Jefferson County, Texas. The Pipeline Expansion originates at the Liquefaction Facility site, located adjacent to the Sabine Neches Waterway (SNWW), 10 miles south of Port Arthur, in Jefferson County, Texas, and includes work at multiple locations extending into Calcasieu Parish, Louisiana.

Pursuant to our ongoing coordination, the Galveston District Corps of Engineers (CESWG) submits the below comments regarding the Draft Environmental Impact Statement (DEIS) for Golden Pass Products' proposed Liquefaction and Pipeline Expansion Project.

General Comments on entire document:

FA5-1 The DEIS Executive Summary indicates that 381.4 acres of wetlands would be temporarily or permanently impacted by the proposed project. Table 4.4.2-1 indicates 383.9 acres will be permanently impacted. Updates to the DA Permit application, submitted to the Corps on July 7, 2104, indicates that 383.53 acres of wetlands will be permanently affected, and 15.71 acres will be temporarily affected, by construction. This information does not match and should be consistent throughout all sections of the DEIS, and the DA permit application.

FA5-1 The EIS has been updated with the most recent acreage numbers provided by Golden Pass.

-2-

Section 4.4, Wetlands:

FA5-2 1. Paragraph 2 of this section addresses Corps jurisdiction under Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act should also be discussed. This is because wetlands will also be affected by the proposed dredging of the Materials Offloading Facility. The Corps recommends adding a new paragraph, to include a discussion of Section 10 impacted wetlands. Thee Section 10 language in Section 1.2.2, can be used to explain this component of Corps jurisdiction and project impacts.

FA5-3 2. Section 4.4.3, Compensatory Mitigation, states that Golden Pass should submit a final Wetland Compensatory Mitigation Plan (CMP) to FERC by 16 May 2016. This timeline does not follow the Corps process, as the Corps may request revisions to the CMP after reviewing comments received during the Corps Public Notice Period. Our comment period closes on June 3, 2016, provided it is not extended. Therefore, the CMP could still be edited up 60 days or more, following June 3, 2016. The Corps recommends that this deadline be extended, so that Golden Pass may coordination their response to capture edits required by the Corps.

CESWG appreciates the opportunity to comment on the DEIS. Please reference the CESWG file number, SWG-2004-02118, in any future correspondence pertaining to this project. Please call me at 409-766-3105, or email me at felicity.a.dodson@usace.army.mil, if you have any questions.

Sincerely,

Felicity Dodson
Regulatory Project Manager

Copy Furnish:

Eric Howard
Federal Energy Regulatory Commission (FERC)
888 First Street, NE, Room 1A
Washington, DC 20426

Richard Smith
Golden Pass Products LLC
Golden Pass Pipeline LLC
333 Clay Street, Suite 802
Houston, Texas 77002

FA5-2 Section 4.4 of the EIS has been updated to include a description of the Section 10 permit.

FA5-3 The recommendation in section 4.4.3 regarding the compensatory mitigation plan has been updated to recommend that the final plans be submitted prior to the start of construction.

Mark Burley
Golden Pass Products LLC
Golden Pass Pipeline LLC
333 Clay Street, Suite 802
Houston, Texas 77002

FEDERAL AGENCIES

FA6 – U.S. Congressman Randy K. Weber

20160526-5219 FERC PDF (Unofficial) 5/26/2016 3:30:57 PM

Congressman Randy K. Weber, Washington, DC.
May 16, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

FA6-1 On March 25, 2016, the Federal Energy Regulatory Commission (FERC) issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project. I am submitting these comments in strong support of this $10 billion investment in the 14th Congressional District of Texas.

The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this investment in our community. I agree with the statement's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

This project would create thousands of jobs and billions of dollars of investment in our economy. Specifically, the five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, including approximately 9,000 in construction. The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation. Over the life of the project, this $10 billion of private investment could drive about $31 billion in U.S. economic gains and $4.6 billion in total tax revenue for our nation at local, state and national levels.

Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate this new export facility. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours - more than 5 years - without a lost-time injury.

Without a doubt, this important investment in my community will yield lasting economic benefits for my state and the nation with an existing industrial footprint that minimizes the impact on our environment. The positive economic and community benefits of this major infusion of new private capital cannot be overstated. I urge the FERC to look favorably

FA6-1 The commentor's support of the Project is noted.

FEDERAL AGENCIES

FA6 – U.S. Congressman Randy K. Weber (cont'd)

20160526-5219 FERC PDF (Unofficial) 5/26/2016 3:30:57 PM

FA6-1 on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

Randy K. Weber
Member of Congress

STATE AGENCIES

SA1 – Louisiana Department of Wildlife and Fisheries

JOHN BEL EDWARDS
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES

CHARLES J. MELANCON
SECRETARY

April 19, 2016

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

RE: *Docket Number: CP14-517-000 and CP14-518-000*
Applicant: Golden Pass Products, LLC and Golden Pass Pipeline, LLC
Notice Date: March 25, 2016

Dear Ms. Bose:

The professional staff of the Louisiana Department of Wildlife and Fisheries has reviewed the above referenced notice for the proposed Golden Pass Liquefied Natural Gas Export Project, impacting approximately 2 acres of wetlands through the installation of a new pipeline and compressor stations, in Calcasieu Parish, Louisiana. Based upon this review, the following has been determined:

SA1-1 In an effort to reduce impacts, LDWF recommends that temporary pipeline right-of-ways not exceed 75-feet in width and that permanent pipeline right-of-ways not exceed 30-feet in width within wetlands.

SA1-2 The applicant shall implement adequate erosion/sediment control measures to insure that no sediments or other activity related debris are allowed to enter any adjacent wetlands. Accepted measures include the proper use of silt fences, straw bales, seeding or sodding of exposed soils or other Environmental Protection Agency construction site storm water runoff control best management practices. These measures shall be installed prior to the commencement of construction activities and maintained until the project is complete.

SA1-3 LDWF recommends that all forested vegetation cleared during construction activities be hauled to a non-wetland disposal location, or chipped and spread on site in a manner that is beneficial to the surrounding environment (i.e., placed in thin layers not to exceed 4 inches).

SA1-4 Ensure that the applicant provides adequate and appropriate mitigation for impacts to wetland functions.

P.O. BOX 98000 • BATON ROUGE, LOUISIANA 70898-9000 • PHONE (225) 765-2800
AN EQUAL OPPORTUNITY EMPLOYER

SA1-1 Golden Pass would maintain a 75-foot-wide right-of-way through wetlands except where they have requested a variance (see table 4.3-4 in the EIS). Based on Golden Pass' justifications, we determined that the variances requested were acceptable.

SA1-2 Golden Pass would follow the measures outlined in our Plan and Procedures, including slope breakers, trench plugs, and sediment barriers.

SA1-3 Golden Pass would dispose of cleared vegetation in accordance with our Plan and application of federal, state, and local regulations.

SA1-4 See response to comment FA4-9 regarding Golden Pass' wetland mitigation plans.

STATE AGENCIES

SA1 – Louisiana Department of Wildlife and Fisheries (cont'd)

Page 2
Application Number: CP14-517-000 and CP14-518-000
April 19, 2016

The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact Habitat Section biologist Zachary Chain at 225-763-3587 should you need further assistance.

Sincerely,

Kyle F. Balkum
Biologist Director

zc

c: EPA Marine & Wetlands Section
USFWS Ecological Services

STATE AGENCIES

SA2 – Texas Senator Brandon Creighton

20160517-5000 FERC PDF (Unofficial) 5/16/2016 5:24:14 PM

Senator Creighton, Beaumont, TX.
May 16, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

SA2-1 On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments in support of the proposed $10B project.

The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours - more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

Brandon Creighton

SA2-1 The commentor's support for the Project is noted.

STATE AGENCIES

SA3 – Texas Parks and Wildlife Department

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

TEXAS PARKS & WILDLIFE

Life's better outside.®

Commissioners

T. Dan Friedkin
Chairman
Houston

Ralph H. Duggins
Vice-Chairman
Fort Worth

Anna B. Galo
Laredo

Bill Jones
Austin

Jeanne W. Latimer
San Antonio

James H. Lee
Houston

S. Reed Morian
Houston

Dick Scott
Wimberley

Kelcy L. Warren
Dallas

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

May 16, 2016

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: OEP/DG2E/GAS 2
Golden Pass Products LLC and Golden Pass Pipeline LLC;
Draft Environmental Impact Statement for the Proposed Golden Pass LNG Export Project
Docket Nos. CP14-517-000 and CP14-518-000

Dear Secretary Bose:

Texas Parks and Wildlife Department (TPWD) has reviewed the Draft Environmental Impact Statement (DEIS) dated March 2016, for the Proposed Golden Pass LNG Export Project for activities within Jefferson and Orange Counties, Texas. The purpose of this project is to export liquefied natural gas (LNG). Golden Pass proposes to construct and operate onshore natural gas liquefaction and associated facilities to allow the export of LNG in Texas, and to expand, own, operate and maintain a new interstate natural gas pipeline, three new compressor stations and ancillary facilities in Texas and Louisiana.

Below is the list of proposed actions listed within the DEIS:

1. Enable bi-directional flow of natural gas along the Golden Pass Pipeline system and allow natural gas to be received from domestic sources.
2. Expand the existing Golden Pass Import Terminal to receive, treat, and liquefy domestic natural gas for export from the existing marine facility and
3. Load LNG into vessels berthed at the existing marine facility to transport LNG worldwide.

The proposed pipeline expansion consists of constructing approximately 2.6 miles of new pipeline between milepost (MP) 63 and MP 66 within Louisiana, constructing three new compressor stations at MP 1 and MP 33 in Texas and a compressor station at MP 66 in Louisiana. The proposed Terminal Expansion is located on a 919-acre site along State Highway 87 and the Sabine Neches Waterway (SNWW), about 2 miles north of the community of Sabine Pass, Texas.

TPWD has reviewed information in the DEIS for possible impacts to fish and wildlife resources of the State and offers the following comments regarding the proposed impacts.

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

4.4 Wetlands

SA3-1 Wetland habitat exists within the proposed project area including palustrine emergent marsh (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine emergent wetland (EEM) as described in the DEIS. Emergent, forested, and shrub-scrub wetlands provide high-quality habitat for a variety of small and medium-sized mammals, amphibians and avian species. These wetlands also serve to reduce erosion and intercept rainwater runoff, removing excess nutrients and bacteria from surface waters and filtering and collecting sediment from runoff thereby improving water quality.

Golden Pass proposes to permanently impact 382.3 acres of PEM, 1.2 acres of PSS, 0.4-acre of PFO, and 0.1-acre of EEM wetland habitat for all construction activities related to the proposed project within Texas and Louisiana. All but 2.3 acres of PEM and 0.1-acre of EEM wetland habitat will be in Jefferson and Orange Counties in Texas.

Golden Pass proposes to mitigate for impacts to PEM wetland habitat by developing a Permittee Responsible Mitigation Plan which includes restoration of approximately 721 acres of marsh through the beneficial use of dredged material at the Salt Bayou Unit of the J.D. Murphree Wildlife Management Area (WMA) in Jefferson County. In addition, Golden Pass proposes to mitigate for the remaining 1.4 acres of PSS and 0.4-acre of PFO habitat by purchasing credits at the Pineywoods Mitigation Bank in Polk County, Texas.

Recommendations: Continue coordination with TPWD, United States Fish and Wildlife Service (USFWS), the U.S. Army of Corps of Engineers, and other resource agencies regarding the Draft Mitigation Plans for both the Facility Expansion and the Compressor Station at MP 33 in Jefferson and Orange Counties, Texas.

4.6 Wildlife and Aquatic Resources

SA3-2 The Terminal Expansion would include the construction of a Supply Dock along the western bank of the SNWW, about 2,000 feet east of the existing Ship Slip. The Supply Dock would consist of a barge slip extending about 400 feet into the current shoreline, with a width of about 240 feet, including a 350-foot-long bulkhead parallel to the shoreline, extending to the east of the barge slip. Golden Pass estimates the construction of the Supply Dock and access channels would require dredging of about 455,450 cubic yards of sediments.

Golden Pass has coordinated with TPWD regarding the majority of the project plans and associated impacts, including 1) Alternatives Analysis, 2) Draft Compensatory Mitigation Plans for both the Terminal Expansion and the

SA3-1 Golden Pass is continuing to coordinate with the appropriate federal and state agencies regarding its wetland mitigation plan. We have updated our recommendation in section 4.4 to recommend that the final mitigation plans be submitted prior to the start of construction.

SA3-2 See response to comment FA4-22 regarding the Dredged Material Management Plan and sediment sampling.

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

SA3-2 (cont.)

Compressor Station at MP 33, and 3) Sediment sampling and analysis results for the existing Ship Slip conducted in 2010 and 2015.

Although TPWD has reviewed the 2010 sediment sampling results from the original dredging of the Ship Slip and the 2015 sediment sampling and analysis results from the maintenance dredging within the existing Ship Slip, Golden Pass has not provided TPWD with results or analysis for any sediment sampling the newly proposed dredging areas within the SNWW associated with the construction of the Supply Dock and float channels.

Recommendations: Golden Pass should conduct and prepare a Sediment Sampling and Analysis Report for the newly proposed Supply Dock and float channel areas similar in effort to the *2015 Golden Pass Sediment Sampling and Analysis Report for the Golden Pass Product LNG Terminal Ship Slip*. Golden Pass should provide the report to TPWD and other resource agencies for review and comment prior to issuance of the Final EIS (FEIS).

4.6.2.1 Migratory Birds

SA3-3

Migratory Bird Treaty Act (MBTA)

The MBTA prohibits taking, attempting to take, capturing, killing, selling/purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts and nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The USFWS Migratory Bird Office can be contacted at (505) 248-7882 for information on potential impacts to migratory birds.

The DEIS states that Golden Pass will continue to consult with the USFWS regarding the project's impacts on migratory birds.

Recommendations: The measures that follow should be included in the FEIS. Any removal of vegetation (including both construction and subsequent right-of-way (ROW) maintenance activities) should be avoided during the primary migratory bird nesting season, March through August, to avoid adverse impacts to this group. If clearing vegetation during the nesting season is unavoidable, the construction area should be surveyed to ensure that no nests with eggs or young will be disturbed by construction. If nests are observed during surveys, an area of buffer vegetation no less than 25-feet in all directions should remain around the nest until young have fledged. Any vegetation (trees, shrubs, and grasses) where occupied nests are located should not be disturbed until the eggs have hatched and the young have fledged. If there are abandoned nests in the area these nests should be removed to prevent reoccupation. Raptor nesting occurs late winter through early spring; construction activities should be excluded from a minimum zone of 300 feet surrounding any raptor nest during the period of February 1 through July 15.

SA3-3 As discussed in section 4.6.2.1, due to the lack of migratory birds or nests during surveys conducted in 2013, Golden Pass is not planning on limiting vegetation clearing to outside of the recommended windows. However, Golden Pass would conduct pre-construction surveys during nesting season to identify any migratory bird nests or rookeries. If migratory birds are present, Golden Pass would contact the U.S. Fish and Wildlife Service (FWS) for guidance as to the appropriate next steps.

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

4.6.2.3 Colonial Nesting Waterbirds

SA3-4 In general, nesting dates for herons and egrets range from early February to late August in Texas, depending on the species. Great Blue Herons (GBHE) are usually the first to nest. If nesting GBHE are disrupted and abandon nesting, other species of herons and egrets may not attempt to nest at the rookery that year. A reference that indicates nesting dates for Texas species within rookeries can be found in *Nuisance Heronries in Texas*: http://www.tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_w7000_0134.pdf.

The DEIS states that Golden Pass has not identified any rookeries within the project area during its survey efforts. However, should a rookery be identified during surveys, Golden Pass should minimize impacts to the rookery. TPWD strongly encourages the measures outlined below be included in the FEIS.

Recommendation: The measures that follow should be included in the FEIS.
1. If rookeries are encountered, Golden Pass should avoid/minimize disturbance during nesting. A primary buffer area of 300 meters (984 feet) from the rookery periphery to avoid any vegetation clearing as a protection measure to protect the rookery species and their habitat. Pipeline construction and permanent easements that would encroach within this buffer area should be re-routed, adjusted, or narrowed to avoid clearing within this buffer area. Utilizing areas that have already been cleared within this buffer area may be acceptable depending on site-specific characteristics. Additionally, human foot traffic or machinery use should not occur within this buffer area during the nesting season.

2. During the breeding season, Golden Pass should allow a secondary buffer area to avoid clearing activities or construction using heavy machinery during the breeding season (courting and nesting). If rookeries are identified in the project area and details regarding the rookeries are provided, TPWD staff can discuss the ability to feasibly meet the recommended setback distances. Details to aid in decision making include 1) the size of the rookery (number of nests and area of rookery), 2) species utilizing the rookery, 3) distance of rookery periphery from the construction area, and 4) characteristics regarding the habitat within and surrounding the rookery.

4.6.2.4 Bald Eagle

SA3-5 *Bald and Golden Eagle Protection Act (BGEPA)*

Although the Bald Eagle (*Haliaeetus leucocephalus*) is no longer federally-listed threatened, this species remains state-listed threatened and receives protection under the BGEPA. The BGEPA prohibits anyone, without a permit issued by the

SA3-4 As discussed in section 4.6.2.3, Golden Pass would conduct pre-construction surveys and maintain a 1,000-foot buffer around any rookeries identified. Golden Pass would continue to coordinate with FWS and Texas Parks and Wildlife Department (TPWD) if any rookeries are found during pre-construction surveys to identify any additional mitigation measures that may be needed.

SA3-5 Golden Pass would continue to coordinate with FWS and TPWD if any rookeries are found during pre-construction surveys to identify any additional mitigation measures that may be needed.

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

SA3-5 (cont.)

Secretary of the Interior, from "taking" Bald Eagles, including their parts, nests, or eggs. The BGEPA provides criminal penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any Bald Eagle ... [or any Golden Eagle], alive or dead, or any part, nest, or egg thereof. The BGEPA defines "take" as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.

In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment. Should a Bald Eagle or a Bald Eagle nest be observed in the project area, Golden Pass should adhere to buffer requirements established in USFWS National Bald Eagle Management Guidelines.

Recommendation: TPWD supports Golden Pass's commitment to follow the National Bald Eagle Management Guidelines and recommends that project work sites, including temporary work spaces, in the vicinity of lakes and rivers be assessed for nesting, foraging, or roosting habitat for this species. If potential impacts to the Bald Eagle are anticipated, TPWD recommends consultation with USFWS – Houston Ecological Services at (281) 286-8282 regarding compliance with the BGEPA and the TPWD Wildlife Office (361) 576-0022 because the Bald Eagle is state-listed threatened species.

4.7 Threatened and Endangered Species

4.7.1 Federal Listed Threatened and Endangered Species

SA3-6

Endangered Species Act (ESA)

Federally-listed animal species and their habitat are protected from "take" on any property by the ESA. Take of a federally-listed species can be allowed if it is "incidental" to an otherwise lawful activity and must be permitted in accordance with Section 7 or 10 of the ESA. Federally-listed plants are not protected from take except on lands under federal/state jurisdiction or for which a federal/state nexus (i.e., permits or funding) exists. Any take of a federally-listed species or its habitat without the required allowance from USFWS is a violation of the ESA.

In section 4.7 in the DEIS it states that the proposed project would have "*no effect*" or "*not likely to adversely affect*" any federal- or state-listed threatened or endangered species. TPWD notes that, although the whooping crane is not listed in Texas Natural Diversity Database (TXNDD) for Jefferson and Orange Counties as a federal- or state-listed endangered or threatened species, the proposed project site occurs within a migration corridor and includes potential stopover habitat for whooping crane (*Grus americana*).

SA3-6 Golden Pass is continuing to coordinate with FWS and TPWD regarding any potential impacts to Bald Eagles.

STATE AGENCIES

SA3 – Texas Parks and Wildlife Department (cont'd)

SA3-6 (cont.)

Recommendation: Disturbance to whooping cranes should be avoided. Golden Pass should inform employees and contractors of the potential for the federally-listed endangered whooping crane to occur in the area. Any work should immediately cease and coordination with the USFWS should occur if whooping cranes are observed.

4.7.1.4 Sea Turtles

SA3-7

Five species of federally endangered sea turtles could possibly inhabit the waters near the Terminal Expansion within the SNWW. Although nesting habitat is currently not present within the project area, impacts to these species could occur due to vessel strikes in the SNWW. TPWD supports commitments to adhere to the NOAA's Fisheries Vessel Strike Avoidance Measures and Reporting for Mariners.

Recommendations: Any observation of these species should be reported to the Sea Turtle Hotline at 866-Turtle-5 (866-887-8535)

4.7.2 State-listed and Other Special-status Species

SA3-8

Section 68.015, Parks and Wildlife Code – State-listed Species

Section 68.015 of the Parks and Wildlife Code regulates state-listed species. Please note that there is no provision for the capture, trap, take, or kill (incidental or otherwise) of state-listed species. A copy of *TPWD Guidelines for Protection of State-Listed Species* can be found at http://www.tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/media/tpwd_statelisted_species.pdf. This document includes a list of penalties for take of state-listed species. For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Office (also http://www.tpwd.state.tx.us/business/permits/land/wildlife/research/). For the above-listed activities that involve aquatic species please contact TPWD (Mr. Winston Denton, 281-534-0138).

Based on a review of the project area, the following state-listed threatened species could be impacted by the project:

- Bald Eagle (see BGEPA above)
- Reddish Egret
- White-faced ibis
- Alligator snapping turtle
- Texas diamondback terrapin
- Northern Scarlet snake
- Timber rattlesnake
- Texas Horned Lizard

SA3-7 Golden Pass is continuing to coordinate with federal, state, and local agencies regarding any species of concern and associated mitigation measures.

SA3-8 Golden Pass is continuing to coordinate with federal, state, and local agencies regarding any additional mitigation measures that may be required.

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

SA3-8 (cont.)

Recommendations:

- An on-the-ground survey by a qualified biologist should be performed in areas of suitable habitat to determine if state-listed species are present during construction activities. If present, Golden Pass should incorporate actions into the project to avoid impacts to these species. If the presence of a biological monitor during construction is not feasible, state-listed threatened species observed during construction should be allowed to safely leave the site or be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed during construction.
- For state-listed bird species TPWD recommends employing strategies outlined above regarding MBTA compliance and rookeries. Please be aware that species not occurring during site surveys may utilize the habitat within the project area at times beyond those during which the survey was conducted, such as seasonally or nocturnally. Additional information regarding BMPs is available at http://www.tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/tools.html.
- Because snakes are generally perceived as a threat and killed when encountered during clearing or construction, TPWD recommends Golden Pass inform employees and contractors of the potential for snakes to occur in the study area. Contractors should be advised to avoid impacts to snakes and allow all native snakes to safely leave the premises.
- Any translocations of reptiles be the minimum distance possible no greater than one mile and preferably within 100-200 yards from the initial encounter location. As a reminder, for purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Office, http://www.tpwd. texas.gov/business/permits/land/wildlife/research/.

Rare Resources

SA3-9

Although not listed in the DEIS, special features, natural communities, and rare species that are not listed as threatened or endangered are tracked in the TXNDD. Although not afforded protection by the ESA or Parks and Wildlife Code Section 68.015, TPWD actively promotes rare species conservation. TPWD considers it important to evaluate and if necessary, minimize impacts to rare species and their habitat to reduce the likelihood of endangerment.

The TPWD county lists for rare species may be obtained from the website: http://www.tpwd.texas.gov/landwater/land/maps/gis/ris/endangered species. These lists provide information regarding rare species that have potential to occur within each county. Rare species could potentially be impacted if suitable habitat is present at or near the project site.

SA3-9 Golden Pass is continuing to coordinate with state-agencies regarding state-listed species and any appropriate mitigation measures.

STATE AGENCIES

SA3 – Texas Parks and Wildlife Department (cont'd)

20160517-5039 FERC PDF (Unofficial) 5/16/2016 6:25:24 PM

SA3-9 (cont.)

The TXNDD revealed the following known occurrences of species of concern, special features, and natural communities within five miles of the project area in Texas:

- Texas windmill-grass (*Chloris texensis*)
- Texas screwstem (*Bartonia texana*)
- Threeflower broomweed (*Thurovia triflora*)
- Colonial Waterbird Rookery
- Coastal Live Oak-Pecan Series (*Quercus virginiana-Carya illnoensis* Series)
- Gammagrass-Switchgrass Series (*Tripsacum dactyloides- Panicum virgatum* Series)
- Little-Bluestem- Brownseed Paspalum Series (*Schizachyrium scoparium-Paspalum plicatulum* Series)
- Vertisol Coastal Prairie Series

Recommendation: Potential adverse impacts should be identified and conservation measures to offset harm should be incorporated into the project mitigation plan. If rare, threatened, and endangered species or special features are to be adversely affected, TPWD should be contacted for further coordination.

Thank you for consideration of our comments. Questions can be directed to Ms. Heather Biggs (281-534-0133) in Dickinson, Texas.

Sincerely,

Rebecca Hensley
Regional Director, Ecosystem Resources Program
Coastal Fisheries Division

RH:HB:RL

STATE AGENCIES

SA4 – Texas Senator Brandon Creighton

20160524-0011 FERC PDF (Unofficial) 05/24/2016

BRANDON CREIGHTON

STATE SENATOR
DISTRICT 4

OFFICE OF
EXTERNAL AFFAIRS
2016 MAY 24 A 9:24
FEDERAL ENERGY
REGULATORY COMMISSION

May 16, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

SA4-1 On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments in support of the proposed $10B project.

The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

BEAUMONT OFFICE:
350 PINE ST., SUITE 1450
BEAUMONT, TEXAS 77701
(409) 838-9861

CAPITOL OFFICE:
P.O. BOX 12068
AUSTIN, TEXAS 78711
(512) 463-0104 • FAX (512) 463-6373

THE WOODLANDS OFFICE:
2829 TECHNOLOGY FOREST, STE. 240
THE WOODLANDS, TEXAS 77381
(936) 539-0028

E-MAIL: BRANDON.CREIGHTON@SENATE.STATE.TX.US

COMMITTEES:
BUSINESS & COMMERCE, VICE-CHAIR • AGRICULTURE, WATER & RURAL AFFAIRS • CRIMINAL JUSTICE • STATE AFFAIRS

SA4-1 The commentor's support for the Project is noted.

STATE AGENCIES

SA5 – Texas Representative Gene Wu

20160524-0014 FERC PDF (Unofficial) 05/24/2016

TEXAS HOUSE OF REPRESENTATIVES

GENE WU
DISTRICT 137

May 16, 2016

OFFICE OF
EXTERNAL AFFAIRS
2016 MAY 24 A 9:24
FEDERAL ENERGY
REGULATORY COMMISSION

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

SA5-1 On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project, referenced above. I would like to submit these comments in support of the proposed $10B project.

The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

CAPITOL: P.O. BOX 2910 • AUSTIN, TX 78768-2910 • (512) 463-0492 • FAX: (512) 463-1182
DISTRICT: 6500 ROOKIN, BLDG. C • HOUSTON, TX 77074 • (713) 271-3900

SA5-1 The commentor's support for the Project is noted.

STATE AGENCIES

SA5 – Texas Representative Gene Wu (cont'd)

20160524-0014 FERC PDF (Unofficial) 05/24/2016

SA5-1 (cont.)

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

COMPANY AND ORGANIZATIONS

CO1 – Black Pearl Exploration

BLACK PEARL
EXPLORATION

14531 FM 529, Suite 150, Houston, Texas 77095
PH: 281-855-4755

5/10/16

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments in support of the proposed $10B project.

CO1-1 The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

CO1-1 The commentor's support for the Project is noted.

BLACK PEARL
EXPLORATION

14531 FM 529, Suite 150, Houston, Texas 77095
PH: 281-855-4755

CO1-1 (cont.)

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

Mike Looney
President
Black Pearl Exploration

COMPANY AND ORGANIZATIONS

CO2 – Consumer Energy Alliance

CONSUMER ENERGY ALLIANCE
THE VOICE OF THE ENERGY CONSUMER

May 9, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

The Federal Energy Regulatory Commission (FERC) issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) on March 25, 2016 for the proposed Golden Pass LNG Export Project referenced above. I would like to submit these comments on behalf of the Consumer Energy Alliance (CEA) in support of the proposed $10B project.

Founded in 2006, CEA is a nonpartisan, nonprofit organization advocating for a balanced energy policy and responsible access to resources. CEA represents virtually every sector of the U.S. economy – from the iron and steel industry to truckers, airlines, agriculture, restaurants, chemicals, small business and every day consumers – each of which has a vested interest in North American energy policies, energy security and long-term price and supply stability. CEA has almost 300 affiliate members and more than 400,000 individual members throughout the United States.

CO2-1 CEA supports responsible development, transportation and utilization of domestic energy resources, including natural gas. CEA believes that the Golden Pass LNG project will be good for the long-term viability and sustainability of America's natural gas resources.

The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this expansion. We agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

This project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

2211 Norfolk Street | Suite 410 | Houston, TX 77098 | 713.337.8800
consumerenergyalliance.org

CO2-1 The commentor's support for the Project is noted.

CONSUMER ENERGY ALLIANCE
THE VOICE OF THE ENERGY CONSUMER

CO2-1 (cont.) This project provides many positive economic and community benefits through a major infusion of new private capital into the region and to our country. We believe it will be beneficial to our economy and to consumers large and small.

Golden Pass has an excellent track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration.

And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

David Holt
President
Consumer Energy Alliance

2211 Norfolk Street | Suite 410 | Houston, TX 77098 | 713.337.8800
consumerenergyalliance.org

COMPANY AND ORGANIZATIONS

CO3 – Sealark Investments, Inc.

Sealark Investments, Inc.
4900 Woodway, Suite 800
Houston, Texas 77056-1809
713-552-9192

March 9, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

I am writing in support of the Golden Pass project. On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments in support of the proposed $10B project.

CO3-1 The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create economic opportunity, thousands of jobs, and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

Additionally, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

CO3-1 The commentor's support for the Project is noted.

CO3-1 (cont.)

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

John F. Schwarz, Jr.,
President

COMPANY AND ORGANIZATIONS

CO4 – Southgate Resources, LLC

SOUTHGATE RESOURCES, LLC

May 9, 2016

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments on behalf of Southgate Resources, LLC in support of the proposed $10B project.

As a small consulting company to the energy industry, our company is feeling the impacts of the current downturn in the oil and gas sectors. The continued viability of domestic oil and gas production is absolutely critical to the future of our business. The Golden Pass LNG project will be good for the long-term viability and sustainability of America's natural gas resources.

CO4-1 The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

CO4-1 The commentor's support for the Project is noted.

CO4-1 (cont.)

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible. Thank you for your attention.

Sincerely,

Jack Belcher
President
Southgate Resources, LLC
2213 Devonshire
Houston, TX 77019

COMPANY AND ORGANIZATIONS

CO5 – Sterling Integrated Solutions, LLC

STERLING INTEGRATED SOLUTIONS, LLC
2211 Portwest Drive, Suite 100, Houston, Texas 77024/Phone: 713-444-8282

5/9/16

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

Re: Golden Pass Products LLC and Golden Pass Pipeline LLC,
Docket Nos. CP14-517-000 and CP14-518-000

Dear Ms. Bose:

On March 25, 2016, the FERC issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the proposed Golden Pass LNG Export Project (referenced above). I would like to submit these comments in support of the proposed $10B project.

CO5-1 The DEIS represents a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of this welcomed expansion to our area. I agree with the report's conclusion that, with the proposed mitigation efforts, the construction of the new facility would not result in significant environmental impacts.

Simply put, this project would create opportunity- thousands of jobs and billions of dollars of investment in local, state and U.S. economies:

- The five-year construction phase could generate the equivalent of 45,000 direct and indirect jobs nationwide, some 9,000 in construction.
- The decades-long operations phase could create some 3,800 direct and indirect permanent jobs for a generation.
- Over the life of the project, this $10B investment could drive about $31 billion in U.S. economic gains (gross product) and $4.6 billion in taxes for the U.S at local, state and national levels.

The positive economic and community benefits of this major infusion of new private capital cannot be overstated.

What's more, Golden Pass' track record of unwavering commitment to safety, environment, and community is a strong indicator of how they will build and operate the new project. During Hurricane Ike, Golden Pass stood firm with Sabine Pass, helping rebuild the community. Golden Pass has made lasting investments in the conservation of local habitat by donating more than 800 acres of forested wetlands in Texas and Louisiana for wildlife protection and ecosystem restoration. And Golden Pass has a

CO5-1 The commentor's support for the Project is noted.

STERLING INTEGRATED SOLUTIONS, LLC

2211 Portwest Drive, Suite 100, Houston, Texas 77024/Phone: 713-441-8282

CO5-1 (cont.)

central culture of safety, with more than 6 million work-hours – more than 5 years - without a lost-time injury.

In closing, I urge the FERC to look favorably on the Golden Pass DEIS and publish the Final EIS as scheduled and issue the final order as soon as possible.

Sincerely,

Romeo Pulikatthara
President
Sterling Integrated Solutions, LLC

COMPANY AND ORGANIZATIONS

CO6 – American Petroleum Institute

20160516-5229 FERC PDF (Unofficial) 5/16/2016 12:10:24 PM

May 16, 2016

energy API
AMERICAN PETROLEUM INSTITUTE

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

RE: The Draft Environmental Impact Statement for the Golden Pass LNG Export Project proposed by Golden Pass Products LLC and Golden Pass Pipeline LLC (Docket Nos. CP14-517-000 and CP14-518-000)

Dear Ms. Bose:

On behalf of the American Petroleum Institute (API), I write in support of the draft Environmental Impact Statement (DEIS) for the Golden Pass LNG Export Project. The economic and environmental benefits of exporting U.S. liquefied natural gas (LNG), including those to be gained by the approval of the Golden Pass LNG Export Project, are considerable, and the DEIS is appropriately tailored to facilitate these benefits at a critical time for the U.S. natural gas industry.

I. Statement of Interest

API is a national trade association that represents over 650 companies involved in all aspects of the oil and natural gas industry. API's members include owners and operators of LNG import and export facilities in the United States and around the world, as well as owners and operators of LNG vessels, global LNG traders, and manufacturers of essential technology and equipment used all along the LNG value chain. Our members also have extensive experience with the drilling and completion techniques used in shale gas development and in producing America's natural gas resources in a safe and environmentally responsible manner.

II. Benefits of Increased LNG Exports

The continued safe and environmentally responsible development of domestic natural gas is an important component of America's energy security and economic strength. Since 2007, U.S. natural gas imports have decreased by 41 percent.[1] The U.S. is expected to become a net exporter of natural gas by 2017 and LNG facilities once used for imports are being converted to export facilities.[2] Natural gas supply is abundant and capable of sustaining substantial increases in domestic consumption as well as exports. The volume of natural gas consumed in 2015 in the U.S. was 27.5 trillion cubic feet.[3] The most recent projections show a range of technically recoverable gas using today's technology from 2,200 to 3,900 trillion cubic feet. Importantly, using today's technology, approximately 1,400 Tcf of natural gas is recoverable at a current break-even Henry Hub price of $4/MMBtu or less in the United States and

[1] EIA, U.S. Natural Gas Imports By Country, accessed August 11, 2015, http://www.eia.gov/dnav/ng/ng_move_impc_s1_a.htm.
[2] EIA, Annual Energy Review 2015, April 2015, ES-4, http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf.
[3] "Natural Gas Consumption by End Use," U.S. Energy Information Administration, last modified April 29, 2016, http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm.

1220 L Street, NW • Washington, DC 20005-4070 • www.api.org

20160516-5229 FERC PDF (Unofficial) 5/16/2016 12:10:24 PM

Canada (in real terms), a 66 percent increase over 2010 estimates.[4] As technology continues to advance in unconventional drilling, recoverable gas estimates will continue to grow.

Increased LNG exports will have domestic benefits for the United States, including jobs created by the construction and operation of the facilities themselves. For instance, the Golden Pass LNG Export Project has the potential to create 45,000 direct and indirect jobs nationally during the 5-year construction phase, and 3,800 permanent direct and indirect jobs for the 25+ year operating phase of the facility. In all, the $10 billion investment is projected to generate $31 billion in economic gains for the country, with much needed opportunity in Southeast Texas.[5]

In addition to the economic benefits of LNG exports, natural gas also advances environmental goals. The increased use of natural gas in electricity generation accounted for 45% of total global greenhouse gas (GHG) reductions between 2005 and 2014.[6] Natural gas is the cleanest burning fossil fuel and exporting U.S. LNG would help reduce GHG emissions. ICF International estimates that GHG emissions from exported LNG would be 43 to 52 percent lower than if coal was being used.[7] Further, DOE's own study concluded that U.S. exported LNG has lower life-cycle GHG emissions than power generation from other Asian and European regional fossil fuels.[8] Encouraging the use of natural gas around the world will have an important effect on our climate change goals.

III. Scope of NEPA Review

CO6-1 API also believes the scope of the DEIS is appropriately tailored to mitigate the environmental impacts of construction and operation of the Golden Pass LNG Export Project. Specifically, API believes that the DEIS is fully compliant with FERC's responsibilities under the National Environmental Policy Act (NEPA), and that a final EIS need not consider either the alleged impacts of supposed "induced" upstream natural gas production to meet increased export demand, or the impacts of "downstream" combustion or other use of natural gas once it is shipped, re-gasified, and put to use in any number of ways in any number of export destinations. API has already provided extensive comment and analysis to FERC[9] and the U.S. Department of Energy[10] (DOE) on the proper scope of NEPA review for LNG export facilities and related DOE export authorizations, respectively, and we encourage the Commission to review these comments when finalizing the EIS. In sum, because FERC is not the legal cause of upstream natural gas production or downstream consumption of gas, it is not required under NEPA to consider alleged or actual impacts of these activities. Moreover, environmental impacts of upstream natural gas production are already extensively regulated by numerous federal and state agencies (and are the subject of hundreds of consensus-based industry standards); and DOE has already reviewed and analyzed downstream impacts of LNG exports, concluding that on a lifecycle basis, increased exports will lower global GHG emissions.[11]

---

[4] IHS, "Shale Gas Reloaded: The Evolving View of North American Natural Gas Resources and Costs," February 2016, http://press.ihs.com/press-release/north-americas-unconventional-natural-gas-resource-base-continues-expand-volume-and-de.
[5] "A Golden Opportunity," Golden Pass Products, accessed May 9, 2016, http://www.goldenpassproducts.com/assets/docs/FactSheets/GPPFS2016.pdf.
[6] EIA, "U.S. Energy-Related Carbon Dioxide Emissions, 2014," November 23, 2015, http://www.eia.gov/environment/emissions/carbon/.
EPA, "U.S. Greenhouse Gas Inventory Report: 1990-2014," April 2016, https://www3.epa.gov/climatechange/ghgemissions/usinventoryreport.html.
[7] ICF International, "Lifecycle GHG Emissions from LNG Exports," February 2014, 1.
[8] U.S. Department of Energy, "Life Cycle Greenhouse Gas perspective on Exporting Liquefied Natural Gas form the United States," May 29, 2014, 9.
[9] *See, e.g.*, American Petroleum Institute, "Application for Cove Point Liquefaction Project of Dominion Cove Point LNG, LP, Docket No. CP13-113," June 16, 2014.
[10] *See, e.g.*, American Petroleum Institute, "2012 LNG Export Study – Reply Comments of the American Petroleum Institute," February 25, 3013, http://www.api.org/~/media/files/policy/lng-exports/api-reply-comments-doe-2012-lng-export-study-2013.pdf.
[11] U.S. Department of Energy, "Life Cycle Greenhouse Gas perspective on Exporting Liquefied Natural Gas form the United States," May 29, 2014, 9.

CO6-1 The commentor's support for the Project is noted.

20160516-5229 FERC PDF (Unofficial) 5/16/2016 12:10:24 PM

IV. Conclusion

CO6-1 (cont.)

In order to take advantage of the numerous opportunities that LNG exports provide our nation, proper facility permitting must occur without delay in order to boost the competitiveness of the U.S. in this growing market. Enabling U.S. facilities to come online sooner will ensure the U.S. a competitive advantage in serving expected global LNG demand. For the above stated reasons, API writes in support of the Golden Pass LNG Export Project. This abundant, affordable supply can support significant demand growth across several sectors of the economy including power generation, manufacturing, and transportation. The U.S. can increase our natural gas exports and continue to take advantage of this abundant, affordable resource domestically. Approving LNG exports from the Golden Pass LNG Export Project and other export facilities will strengthen our economic growth and environmental goals. Thank you for your consideration in this matter. API is available to address any questions or concerns that the Commission may have.

Sincerely,

Marty Durbin
Executive Director, Market Development
American Petroleum Institute

COMPANY AND ORGANIZATIONS

CO7 – Industrial Energy Consumers of America

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Golden Pass Liquefied Natural Gas (LNG) Export Project	Docket No. CP14-517

I. Summary of FERC Notice of Proposed Rulemaking

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared a draft environmental impact statement (EIS) for the Golden Pass Liquefied Natural Gas (LNG) Export Project, proposed by Golden Pass Products, LLC and Golden Pass Pipeline, LLC (collectively referred to as Golden Pass) in the above-referenced docket. Golden Pass requests authorization to expand and modify the existing Golden Pass LNG Import Terminal to allow the export of LNG, which would require construction and operation of various liquefaction, LNG distribution, and appurtenant facilities. The Project would also include construction of approximately 2.6 miles of 24-inch pipeline, three new compressor stations, and interconnections for bi-directional transport of natural gas to and from the Golden Pass LNG Export terminal.

II. Industrial Energy Consumers of America

The Industrial Energy Consumers of America is a nonpartisan association of leading energy-intensive trade-exposed (EITE) manufacturing companies with $1.0 trillion in annual sales, over 2,900 facilities nationwide, and with more than 1.4 million employees worldwide. IECA membership represents a diverse set of industries including: chemical, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

EITE industries use 75 percent of the natural gas and 73 percent of electricity consumed by the manufacturing sector, and would be negatively impacted if natural gas prices increase as a result of exporting LNG. EITE industries account for over 40 percent of all manufacturing jobs.

III. Comments on the Golden Pass Liquefied Natural Gas (LNG) Export Project

a. Changes to expand and modify the original application and require a new public interest determination.

CO7-1 The FERC and DOE should not approve the expansion/changes to this application request without conducting a new public interest determination which considers the applications' changes in conjunction with the cumulative economic impact of applications and expanded applications that have already been approved nationwide. The Natural Gas Act (NGA) requires that all applications and changes to applications and their volumes of LNG for export to non-free trade countries must be examined to show that such LNG export applications are not in the public interest.

All of the DOE LNG export studies show insignificant net economic gains, higher prices for natural gas, and negative impacts to wages and investment to several manufacturing sectors. All of the gains are concentrated in favor of those entities that own, produce, and export natural gas, and everyone else in the U.S. economy are negatively impacted.

The economic gains are so small that they are within error of the model's capability for a long-term forecast. Economists make clear that any macroeconomic modeling of the U.S. economy for a period of 25 years or more will have outcomes that perform poorly in the long-run and are not encouraged for important decision making. Economists warn that there are even greater errors on studies that evaluate global economic matters as in

CO7-1 As described in section 1.1 of the EIS, the applicants developed the projects in response to customers' demands and then filed applications with the FERC for authorization to construct and operate the proposed facilities. The EIS is limited to assessing the potential environmental impacts of the proposed projects. Although the EIS does consider whether alternative actions might meet the customers' demands, the EIS does not consider or reach a conclusion on whether there is a need for the proposed projects. Section 1502.13 of the Council on Environmental Quality (CEQ) regulations implementing the NEPA requires that an EIS "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." In other words, the EIS states the purpose of and need for a proposed project in order to define the range of alternative actions that the agency can legitimately consider. The determination of whether there is a "need" for the proposed facilities for the purpose of issuing an authorization under Section 7 of the Natural Gas Act (NGA) will be made in the subsequent Commission Order granting or denying the applicants' request for Certificate authorization and is based on a balancing of the benefits of the projects against any adverse impacts.

The Commission makes the determination for whether a project is in the public convenience and necessity. This evaluation and subsequent decision is based on many factors, including the final EIS and associated recommendations, market analysis, ensuring just and reasonable rates, and engineering analyses. The Commission considers the regional benefits of each project against any adverse impacts. This determination has not been made at this time.

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

CO7-1 (cont.)

the case of LNG and the most recent DOE LNG export study entitled, "The Macroeconomic Impact of Increasing U.S. LNG Exports."[1] Despite this, the DOE has used such studies to justify more and more LNG exports.

The domestic and international market for natural gas and LNG has changed so dramatically over the last 18 months that the DOE LNG export studies and their scenarios fail to adequately reflect these structural market changes. Importantly, the DOE studies have failed to account for the impact of the falling price of crude oil in their scenarios and the direct impact that it has had and will continue to have on short- and long-term supply and the price of natural gas domestically.

For example, crude oil and NGL prices are a major determinant of U.S. natural gas supply, yet there is no evaluation of this relationship in the DOE LNG export studies. The fall of crude oil prices globally, and how major OPEC countries responded by maintaining production which will keep prices lower, is reducing oil and gas investment, thereby impacting the U.S. investment in oil and gas production. The studies do not consider crude oil at or below breakeven costs.

Both short- and long-term investment in production of oil and gas in the U.S. has been greatly impacted going forward to a degree with which has not been considered in any DOE LNG export study scenario. The historic fundamentals of investment that had relied on cash flow to incent drilling are gone. Lenders require higher prices to justify lending to the industry. Due to lower prices, the value of companies proven reserves have fallen which reduces what lenders will allow companies to borrow. DOE studies have not considered these significant and structural changes to oil and gas investments and the impacts to the supply and price of natural gas for the LNG public interest determination.

[1] The Macroeconomic Impact of Increasing U.S. LNG Exports" http://energy.gov/sites/prod/files/2015/12/f27/20151113_macro_impact_of_lng_exports_0.pdf.

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

CO7-1 (cont.)

Lastly, existing studies have failed to include the impact of the EPA's Clean Power Plan and the extended production tax credits for renewable energy.

b. Defining the "public interest."

A U.S. Government Accountability Office (GAO) report[2] states that neither Congress, nor the DOE, has defined the "public interest." DOE is using guidelines developed in 1984 for LNG imports to inform LNG export public interest decisions.

The GAO report entitled, "Federal Approval Process for Liquefied Natural Gas Exports," dated September 2014 includes the following statement on page 11.

> In passing the NGA, Congress did not define "public interest;" however, in 1984, DOE developed policy guidelines establishing criteria that the agency uses to evaluate applications for natural gas imports. The guidelines stipulate that, among other things, the market - not the government – should determine the price and other contract terms of imported natural gas. In 1999, DOE began applying these guidelines to natural gas exports."

Criteria used 32 years ago for decision making on LNG ***imports*** should not be used to inform decision making on LNG ***exports***. In 1984, LNG imports were needed and they reduced risks of all kinds to domestic consumers and manufacturers. LNG exports will do the reverse. There is all pain and no gain for consumers.

LNG exports, according to the DOE report, "The Macroeconomic Impact of Increasing US LNG Exports," will reduce the price that Asian countries pay and increase U.S. prices and eventually, our prices will reach parity with Asia. The U.S. will have lost its competitive advantage. Importantly, manufacturers will have lost their competitive advantage, with very serious long-term implications for a viable manufacturing sector, jobs, investment, especially for EITE industries.

[2] "Federal Approval Process for Liquefied Natural Gas Exports," U.S. Government Accountability Office (GAO), September 2014.

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

CO7-1 (cont.)

IECA is not against exports. We are against excessive exports that can occur because the DOE has not developed appropriate consumer-focused "public interest" determination guidelines that will inform appropriate decision making on LNG export applications and changes to applications.

The DOE needs to conduct a rulemaking to establish public interest guidelines for LNG exports. DOE and FERC should not give approval or conditional approval to any LNG export application, or authorize the expansion or changes to an LNG export application/terminal that has already been approved or conditionally approved without having established these guidelines and evaluated each application or changes to an application using the guidelines.

*c. **DOE-sponsored study "The Macroeconomic Impact of Increasing U.S. LNG Exports" should not be used.***

The DOE study "The Macroeconomic Impact of Increasing U.S. LNG Exports" evaluates the economic impact of quantities of LNG exports of 12-20 Bcf/d. The study should not be used in association with the approval of the application request for an increase in export volume of Golden Pass or any other application.

IECA disagrees with the following major conclusions from the study.

- An increase in LNG exports from the United States will generate small declines in output at the margin for some energy-intensive, trade-exposed industries.
- Negative impacts in energy-intensive sectors are offset by positive impacts elsewhere.

Both of the above study conclusions fail to consider the "relative competitive cost impact" to EITE industries of LNG exports. One study bullet point reads: "In every case, greater LNG exports raise domestic prices and lower prices internationally. The majority

20160516-5221 FERC PDF (Unofficial) 5/16/2016 11:34:40 AM

CO7-1 (cont.)

of the price movement (in absolute terms) occurs in Asia." Page 17 of the study says that LNG exports increasing from 12 Bcf/d to 20 Bcf/d during 2026 and 2040, reduces prices in the Asian-Pacific market by 73 cents per million British thermal units, while increasing U.S. prices by 15 cents per million British thermal units – a combined net negative relative impact to competitiveness of 88 cents, or a 40% equivalent increase, as compared to current prices. A 40 percent impact to relative competitiveness is a very significant relative competitive cost impact and is not addressed in the study cost impacts.

Page 76 of the study states, "The largest increase in [LNG] exports occurs in the HRR cases, and it is in these cases where we see the largest increase in Henry Hub (topping out at $0.86 in the late 2030's) and the largest decrease in JKM (approaching $5.50 by 2040)." This means that our global competitors would see a decrease in prices of $5.50, while U.S. prices would rise $0.86, for a total negative competitive impact of $6.36. This would represent a substantial negative impact to U.S. EITE competitiveness.

Sincerely,

Paul N. Cicio, President
Industrial Energy Consumers of America
1776 K Street, NW, Suite 720
Washington, DC 20006
202-223-1661
pcicio@ieca-us.org

May 16, 2016

COMPANY AND ORGANIZATIONS

CO8 – Sierra Club

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

SIERRA CLUB

May 16, 2016

By eFiling

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

Re: ***Comments on the Draft Environmental Impact Statement for the Golden Pass LNG Export Project, FERC Docket Nos. CP14-517-000 and CP14-518-000, issued March 25, 2016.***

Dear Secretary Bose,

CO8-1 Sierra Club submits these comments concerning the Draft Environmental Impact Statement ("DEIS") prepared by the Federal Energy Regulatory Commission ("Commission" or "FERC") for the Golden Pass LNG Export Project, which would add liquefaction and export capabilities to an existing, but unused, natural gas import terminal. Sierra Clubs requests a written response to comments and written notification when any action is taken on this DEIS, and Sierra Club reserves the right to rely on all public comments submitted. These comments supplement and incorporate by reference the Sierra Club's Motion to Intervene, Protest, and Comment (August 11, 2014) in these dockets.[1]

[1] FERC rules provide that because that motion to intervene was timely and unopposed, it was granted automatically. Nonetheless, in an abundance of caution, Sierra Club renews and reiterates its motion to intervene here.

1

CO8-1 Our replies to the commentor's specific concerns are detailed below. In addition, the Sierra Club has been provided the final EIS.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

Table of Contents

I. Background 2

II. FERC Must Consider the Indirect and Cumulative Effects of Enabling Liquefied Natural Gas Exports from Golden Pass Facility 3

A. Effects of Increased Gas Production 4

B. Effects of Increased Coal Use 4

C. Effects "Downstream" of the Project, in End-Use Markets 5

D. Cumulative Indirect Impacts 6

III. Direct Air Emissions 7

A. Greenhouse Gases 8

1. Global Warming Potentials 8

2. Capture and Sequestration of CO2 Removed from Pipeline Gas at Pretreatment 9

3. Severity and Significance of Greenhouse Gas Emissions 11

B. Ozone 13

1. The DEIS's Ozone Analysis, Which Merely Analogized to the Earlier Sabine Pass Project, Is Deficient 13

2. Golden Pass's Late-filed CAMx Analysis, While Important, Does Not Obviate The Need for FERC NEPA Review 14

IV. Impacts of Vessel Traffic 16

A. The EIS Must Identify the Amount of Vessel Traffic Associated With The Proposed Exports 16

B. Ballast Water 18

V. Conclusion 21

I. Background

Golden Pass proposes to develop an LNG export facility capable of producing approximately 15.6 million tons per annum ("mtpa"), or approximately 2.7 billion cubic feet per day ("bcf/d"), of LNG for export. DEIS 1-1. According to Golden Pass, the new export terminal will consist of three liquefaction trains, feed gas pretreatment facilities, a truck loading/unloading facility and a 200-250 megawatt power plant as well as modifications to the existing import terminal, including the installation of larger pumps, expansion of the existing levee, and the construction of new administration, control, maintenance and storage buildings. The expanded pipeline would consist of approximately three miles of new 24-inch diameter pipeline, three new compressor stations to be located in Texas and Louisiana, and

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

modifications and upgrades to existing interconnections to allow for bi-directional flow and increased capacity.

II. FERC Must Consider the Indirect and Cumulative Effects of Enabling Liquefied Natural Gas Exports from Golden Pass Facility

As explained in the DEIS, "Golden Pass states that the purpose of the Project would be to liquefy and export domestic natural gas to global markets." DEIS 1-2. Those exports, which cannot occur without FERC-approved facilities, will have predictable effects on natural gas production, domestic consumption of natural gas and other sources of energy, and on the use of natural gas in the countries that receive exports. Golden Pass identifies the "incremental natural gas production, associated with the implementation of the proposed Golden Pass Products Terminal over the life span of the facility" as a major source of economic benefit provided by the project. Application at 23-24; *accord id.* at 4-5.

FERC's approval of export infrastructure not only enables these effects; FERC's exercise of siting authority influences their nature and extent. For example, as FERC has acknowledged, an export facility in the Pacific Northwest would be likely to draw gas supplies from fundamentally different producing regions than export facilities along the Gulf or East Coasts. Even for the latter facilities, siting projects in different locations is likely to lead to differences in the location of any induced gas production.

Sierra Club's Motion to Intervene and Protest explained that this incremental increase in gas production would have adverse environmental effects that must be considered in the NEPA and Natural Gas Act analyses. Sierra Club Protest at 9 (Aug. 11, 2014). Sierra Club also identified other distinct but related indirect effects: impacts resulting from a domestic increase in coal use, in response to export-driven increases in domestic natural gas prices, and impacts resulting from use of exported LNG in end-use markets. *Id.*

CO8-2 The DEIS entirely fails to analyze these effects, or to provide reasons for this failure. The DEIS recognizes that FERC received comments calling for investigation into "the extent to which the Project would stimulate natural gas drilling activity and the potential subsequent environmental effects associated with such an expansion." DEIS at 1-7 to 1-8. But the DEIS's sole discussion of this issue is the statement that "Because this issue is outside the scope of the environmental analysis, it is not further addressed in the EIS." DEIS at 1-8. The DEIS does not

CO8-2 The final EIS has been updated. As described in sections 1.3.2 and 4.13.2.11, the environmental analysis of induced natural gas production, LNG transport, and end use are not only beyond the scope of NEPA, but too speculative to permit meaningful consideration as part of our analysis.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-2 (cont.) respond to Sierra Club's comments regarding effects on domestic coal use or end-users of exported LNG.

This falls far short of the hard look at "indirect effects," including "growth-inducing effects," that NEPA requires. 40 C.F.R. § 1508.8(b). Accordingly, FERC must prepare an EIS that considers these indirect effects, and provide the public with an opportunity to comment on this consideration.

A. Effects of Increased Gas Production

DOE, EIA, the project applicants, and numerous private modelers all agree that exports will increase domestic gas production. For reasons stated in Sierra Club's comments on DOE's Addendum to Environmental Review, re-filed in this docket at Accession No. 20160512-5235,[2] export-driven increases in gas production are foreseeable, and will have foreseeable environmental effects.

CO8-3 The Department of Energy summarized some of the general impacts of gas production, and of hydraulic fracturing in particular, in its "Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States," which it issued in conjunction with three reports from the National Energy Technology Laboratory. 79 Fed. Reg. 48,132 (Aug. 15, 2014) ("DOE Addendum"). For reasons explained in Sierra Club's comments on the DOE and NETL materials, which Sierra Club has re-filed in this docket, the Addendum is not a substitute for NEPA review of the indirect effects of exports. Nonetheless, the Addendum and supporting materials confirm exports will lead to a "combination of increased domestic production of natural gas (principally from unconventional sources), decreased domestic consumption of natural gas, and an adjustment to the U.S. net trade balance in natural gas with Canada and Mexico." DOE Addendum at 1. The Addendum and supporting materials also confirm that available tools can be used to reasonably predict the impacts of this production. FERC must therefore avail itself of these tools here.

B. Effects of Increased Coal Use

CO8-4 As we explained above in our comment on DOE's materials regarding the environmental effects of LNG exports, a foreseeable effect of exports will be

[2] http://elibrary.ferc.gov/IDMWS/common/OpenNat.asp?fileID=14247108, pages 5-8.

CO8-3 See response to comment CO8-2. As explicitly stated in the Department of Energy (DOE) report cited by the commentor as well as in sections 1.3.2 and 4.13.2.11 of our EIS, the evaluation of induced natural gas production is beyond the scope of our NEPA review.

CO8-4 The cited EIA report predicted over a dozen LNG export scenarios associated with the use of future energy sources. The report states that none of those increased LNG export scenarios is more plausible than the current reference cases of the mix of the expected use of natural gas, renewables, nuclear, coal, and petroleum liquids. With numerous caveats and assumptions on plausibility, the EIA report predicts that increased LNG exports may increase or decrease greenhouse gas (GHG) emissions depending on various (and unforeseen) socioeconomic and geopolitical forces across the globe. Thus, the wide range of the predicted results of the report were not considered relevant to our NEPA review of the Golden Pass LNG Export Project.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-4 (cont.) increases in greenhouse gas emissions from the U.S. electricity generation sector.[3] This effect is likely to occur notwithstanding recent federal regulations regarding air pollution from coal-fired power plants, as demonstrated by the EIA's analysis of the effect of exports in the "accelerated coal and nuclear retirement" scenario in EIA's October 2014 report on LNG export.[4]

The DEIS is completely silent as to this effect. As explained in Sierra Club's comments on the DOE materials, the export project has the potential to increase coal use in the electric sector, increasing emissions of greenhouse gases, ozone-forming pollutants, and other air pollutants. These effects are reasonably foreseeable and must be considered here.

C. Effects "Downstream" of the Project, in End-Use Markets

The projects would also cause foreseeable indirect effects "downstream" of the facility, in the countries receiving the exported gas. Sierra Club identified these effects, and the need for further analysis thereof, in comments on the Department of Energy's 2014 Addendum on environmental impacts, which we incorporate here by reference. In summary, gas exported from the Golden Pass facility will be transported overseas via tanker, re-gassified, distributed to end users, and then burned, and FERC must consider the impacts of each of these processes. CO8-5

Since those comments were filed, additional information has further highlighted both the magnitude and import of those impacts.

CO8-6 One, the body of evidence indicating that LNG exports will compete with renewables, rather than other fossil fuels, is ever-growing. *See, e.g.*, Jurgen Weiss, et al., *LNG and Renewable Power: Risk and Opportunity in a Changing World* (Jan 15, 2016).[5]

---

[3] Sierra Club's Comment on Climate Impacts of LNG Exports, re-filed in this docket at accession number 20160512-5235, http://elibrary.ferc.gov/IDMWS/common/OpenNat.asp?fileID=14247157, at 4-5.

[4] https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf

[5] http://www.brattle.com/system/publications/pdfs/000/005/249/original/LNG_and_Renewable_Power_-_Risk_and_Opportunity_in_a_Changing_World.pdf, attached as Exhibit 1.

CO8-5 See response to comment CO8-2.

CO8-6 The cited report provides a variety of speculative scenarios on what energy markets may or may not do across the globe in the coming decades. Some scenarios indicate that LNG exports may result in lower costs and more economic growth domestically and internationally. Other scenarios have different outcomes depending on the assumptions and caveats. None of them are germane to the Golden Pass LNG Export Terminal or our NEPA review of it.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

Two, the need for ever-more-ambitious emission reductions in the medium term is becoming ever clearer. U.S. and international emission reduction targets for 2030 and 2050 are drastically lower than targets for 2020. Because LNG infrastructure is likely to operate for multiple decades—because of the cost of the infrastructure, the duration of the relevant government approvals, and the length of the contracts—these longer-term emission targets must be considered as well. Even *if* LNG exports were to exclusively replace coal or other fossil fuels in downstream markets, and even *if* this substitution provided an emission benefit that contributed toward attainment of end-use countries' 2020 or 2025 targets,[6] FERC must consider whether LNG exports would nonetheless decrease the likelihood of attaining longer-term targets. Rather than locking in future reliance on fossil fuels by the encouraging the development of natural gas infrastructure, the U.S. and other countries must work to rapidly transition away from polluting fossil fuel infrastructure entirely. CO8-7

Three, there is growing recognition that, in order to prevent catastrophic climate change, most of the world's recoverable fossil fuels will need to remain in the ground. The United States has recently reiterated the need to serve as a climate leader, setting a strong example that will encourage other countries to take the action necessary to limit climate change.[7] CO8-8

D. Cumulative Indirect Impacts

NEPA requires discussion of the "cumulative" effects "result[ing] from the incremental impact of [agency] action when added to other past, present, and reasonably foreseeable future actions." 40 C.F.R. § 1508.7. The indirect effects of the project on gas production, domestic energy use, and energy use in downstream markets will all be felt cumulatively with the indirect effects of other export projects, and FERC must consider these effects. CO8-9

[6] Sierra Club reiterates that both of these effects are likely to be limited, if they exist at all. Sierra Club's Comment on Climate Impacts of LNG Exports, 20160512-5235, http://elibrary.ferc.gov/IDMWS/common/OpenNat.asp?fileID=14247157, pages 2-4.

[7] See, e.g., Declaration of Todd Stern, U.S. State Department Special Envoy for Climate Change, State of West Virginia, et al., v. EPA, et al., D.C. Cir. Case No. 15-1363 (Dec. 03, 2015), attached as Exhibit 2.

CO8-7 As clearly stated in the reports cited by the commentor (e.g., DOE, 2014; EIA, 2014; Brattle, 2016), LNG exports across the United States may increase or decrease greenhouse gas emissions based on a myriad of future actions and factors outside the control of the FERC or even the United States. More importantly, there is no meaningful evidence that operations of the Golden Pass LNG Export Project would have a reasonably foreseeable effect on climate change, and whether that effect would be positive or negative.

CO8-8 See response to comment CO8-7.

CO8-9 See response to comment CO8-2. As explicitly stated in the DOE report cited by the commentor as well as in sections 1.3.2 and 4.13.2.11 of our EIS, the evaluation of induced natural gas production is beyond the scope of our NEPA review.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-10 At present, FERC has granted eight export facility applications,[8] seven other applications are "pending,"[9] twelve more applications are involved in FERC's "pre-filing" process,[10] and FERC is aware of one project pending before the U.S. Coast Guard and three Canadian projects.[11] These projects must be considered in the cumulative effects analysis.

As Sierra Club observed, the most effective way to undertake the legally required cumulative effects analysis would be to conduct a programmatic environmental impact statement. This suggestion is consistent with the Council on Environmental Quality's suggestion that a programmatic EIS is appropriate when an agency is faced with "several similar actions or projects in a region *or nationwide*."[12] If FERC decides not to prepare a programmatic EIS, however, this does not excuse FERC's obligation to consider the cumulative impact of the slew of export terminal projects. If FERC does not consider these impacts programmatically, FERC must evaluate their cumulative effect in each individual export docket.

III. Direct Air Emissions

The DEIS identifies the tonnage of various air pollutants that will be directly emitted by operation of the project (or closely related activities, such as nearby associated vessel traffic), although the DEIS fails to provide the combined totals for project activities. The major stationary source emissions are:

8 http://ferc.gov/industries/gas/indus-act/lng/lng-approved.pdf (Accessed April 26, 2016), and attached as Exhibit 3.

9 http://ferc.gov/industries/gas/indus-act/lng/lng-proposed-export.pdf (Accessed April 26, 2016) and attached as Exhibit 4.

10 Id.

11 Id.

12 Council on Environmental Quality, Effective Use of Programmatic NEPA Reviews, 14 (Dec. 18, 2014) (emphasis added), available at https://www.whitehouse.gov/sites/default/files/docs/effective_use_of_programmatic_nepa_reviews_final_dec2014_searchable.pdf.

7

CO8-10 Section 4.13 discusses each of the other proposed LNG export facilities considered as part of our cumulative analysis. The final EIS has been updated. As described in section 1.3.2 of the EIS, the FERC staff review applications for interstate natural gas pipeline projects in accordance with an applicant's stated objective(s) in order to disclose the environmental impacts of a proposal to inform the decision makers and, in accordance with NEPA, evaluate reasonable alternatives to a project. However, the FERC as a matter of policy and in accordance with the Natural Gas Act and other governing regulations, does not direct the development of the gas industry's infrastructure regionally or on a project-by-project basis.

Unless proposed in tandem and clearly dependent upon each other, such as the proposed Terminal Expansion and Pipeline Expansion Projects, proposed projects must have demonstrably sufficient feasibility, purpose, and need to stand alone. Proposed projects may be based on supporting and existing infrastructure, but can't be based on theoretical projects whose certification status is uncertain. Preparation of a regional or programmatic EIS is not warranted for these reasons.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

Source	Emissions, tons per year		
	NOx	VOC	CO2e
Terminal and MP1 Compressor*	670.9	258.4	4,940,067
MP33 Compressor**	44.2	6	86,651
MP66 Compressor**	201.4	8.9	393,985
Total	*916.5*	*273.3*	*5,420,703*

* DEIS Table 4.11.1-5, 4-125 to 4-126.

** DEIS Table 4.11.1-7, 4-132

CO8-11 The DEIS fails to take the required hard look at the consequences of the emissions. With regard to greenhouse gases, the DEIS understates the global warming potential of methane, and thus the amount, in carbon dioxide equivalent, of greenhouse gases emitted. The DEIS also fails to consider an alternative that would likely reduce these emissions by approximately 20%: carbon capture and sequestration of CO2 removed from pipeline feed gas during the pretreatment process. The DEIS also fails to address the severity or significance of GHG emissions.

CO8-12 With respect to ozone, the DEIS improperly relies on a prior analysis prepared for the Sabine Pass LNG Export project, despite the fact that the two projects have significantly different emissions and that the Golden Pass emissions will occur in a context much different than the context considered five years ago in the Sabine Pass analysis. These deficiencies are not cured by the photochemical modeling submitted by Golden Pass during the comment period, as we explain below.

A. Greenhouse Gases

1. Global Warming Potentials

CO8-13 The DEIS uses the global warming potentials identified by the IPCC's Fourth Assessment Report, released in 2007. DEIS at 4-119. These values were superseded more than two years ago, in September 2013, when the IPCC released its Fifth Assessment Report.[13] For example, this report estimates, on the basis of more recent and thorough science, that methane from fossil sources has 36 times the

[13] IPCC, Climate Change 2013: The Physical Science Basis: Chapter 8, page 714, Table 8.7, attached as Exhibit 5.

8

CO8-11 We disagree. The EIS appropriately identifies the air quality impacts associated with construction and operation of the proposed LNG liquefaction facilities and the pipeline. Further, the EIS identifies all of the emissions associated with the proposed facilities, as well as the marine emissions required to transport equipment to the terminal site during construction. The EIS also considers the emissions relative to all applicable federal and state regulations designed to protect human health and the environment. The Golden Pass Project would adhere to those regulations. See our responses below to the more detailed comments on these emission issues.

CO8-12 In response to our recommendation in the draft EIS, Golden Pass filed a complete photochemical modeling study of the Terminal Expansion. Section 4.11.1.5 of the EIS has been updated to represent the results specific to ozone emissions of the Terminal Expansion.

CO8-13 The EIS represents the most recent EPA global warming potentials (GWPs), expressed in terms of carbon dioxide equivalents ($CO_{2\text{-eq}}$), as revised in 2013 to reflect the GWP values from the Intergovernmental Panel for Climate Change (IPCC) Fourth Assessment Report released in 2007. Although IPCC released a Fifth Assessment Report in 2014, the values presented in that report have not yet been adopted by the EPA. EPA supported the 100-year time period over the 20-year period in its summary of comments and responses in the final rulemaking, *2013 Revision to the Greenhouse Gas Reporting Rule and Final Confidentiality Determinations for New or Substantially Revised Data Elements*, establishing the methane GWP at 25 (78 Fed. Reg. 71,904). Similarly in this rulemaking, EPA supported the adoption of the published IPCC's Fourth Assessment Report GWP values over the Fifth Assessment Report values. As the commentor notes, EPA acknowledges that the more recent estimates are more accurate and better reflect scientific consensus. EPA has identified that it may consider adoption of the Fifth Assessment Report GWPs in the future, at which time we will ensure use of any revised EPA GWP values in future NEPA evaluations.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-13 (cont.) global warming potential of carbon dioxide over a 100 year time frame and at least 87 times the global warming potential of carbon dioxide over a 20-year time frame.[14] Both the EPA and the Department of Energy have recognized that the newer estimates represent the best available science regarding the impact of non-CO2 GHGs. Specifically, although EPA uses the older IPCC values in compiling EPA's GHG Inventory, EPA has explained that EPA believes more recent estimates to be more accurate and better reflect scientific consensus; EPA uses the old values for the narrow purpose of compiling the inventory because the convention establishing the inventory has specified old values and has not been updated.[15] The Department of Energy has similarly recognized that the Fifth Assessment Report values using climate feedbacks (*e.g.*, 36 and 87 for methane) reflect the current scientific consensus.[16]

2. Capture and Sequestration of CO2 Removed from Pipeline Gas at Pretreatment

Pipeline-quality natural gas delivered to the project would not be pure methane: according to the DEIS, it will contain up to 2% carbon dioxide, together with other impurities. DEIS 4-171. The Project therefore involves "an Amine System for carbon dioxide and hydrogen sulfide removal." DEIS ES-2, 1-1. This amine system produces a waste stream that is up to 96% pure carbon dioxide. DEIS 4-171. This pretreatment waste stream is then sent to a thermal oxidizer, DEIS 4-172, which will emit more than 1.1 million tons of carbon dioxide equivalent per year, DEIS 4-125.

CO8-14 FERC must consider a design alternative that would capture and sequester this CO2 removed from pipeline-quality feed gas, rather than venting it to the atmosphere. Carbon Capture and Sequestration ("CCS") is a process that uses a chemical or physical solvent to remove CO_2, the dominant GHG, from a CO_2-

[14] Id.

[15] https://www3.epa.gov/climatechange/ghgemissions/gwps.html, attached as Exhibit 6.

[16] Department of Energy, Opinion and Order 3357-C, DOE/FE Dkt. 11-161-LNG, at 30 (Dec. 4, 2015) ("We agree with Sierra Club that using 20- and 100-year methane GWPs of 87 and 36 is most appropriate for use today and that climate carbon feedbacks should be captured in the GWP values for methane."), available at www.fossil.energy.gov/programs/gasregulation/authorizations/2011_applications/ord3357c.pdf.

CO8-14 Section 4.11.1.5 has been updated to include a discussion on carbon capture and sequestration.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-14 (cont.)

containing stream (such as natural gas, flue gas, synthesis gas) using absorption, with subsequent stripping of the absorbed CO_2 to produce a concentrated CO_2 stream. Depending upon the acid gas removal technology applied, the CO_2 may need to be dried, then compressed to a dense phase state for pipeline transport to an appropriate storage location, most likely underground in a geological storage reservoir such as a deep saline aquifer or an oil reservoir or coal seam. CCS is far and away the most effective add-on technology available to reduce, by as much as 90 percent, GHG emissions from industrial facilities like the Golden Pass project.

Although CCS can be applied to any CO2-containing emission stream (including the various proposed sources of combustion emissions at the Golden Pass site), it is especially well suited to pretreatment emissions here, because Golden Pass's facility is already designed to remove CO_2 from pipeline gas, producing a high-purity CO_2 stream that is amenable to capture and sequestration. The DEIS states that the resulting waste stream from the Amine Units should be expected to result in a highly concentrated CO_2 stream, as much as 96% CO_2, which is ideal for CCS. This stream can be sequestered in a geologic formation with no further treatment or used for enhanced oil recovery or other end uses. EPA has already determined that CCS is technically feasible for a similar gas pretreatment facility.[17] Another proposed LNG exporter has indicated CO_2 from gas pretreatment could be captured and sequestered for less than $15 per ton, and EPA agreed. Sierra Club's analysis concluded that with better facility design, such as a selective acid gas removal technology that uses a physical solvent, instead of the amine units proposed for Freeport and here, could capture this CO_2 so cheaply that it could make a net profit off of its sale.[18] Examples of these technologies are Selexol[19] or Rectisol[20] units, which could selectively remove both CO_2 and sulfur compounds to levels suitable for enhanced oil recovery or other sequestration. The resulting CO_2 stream would have

[17] EPA Region 6, Statement of Basis: Draft Greenhouse Gas Prevention of Significant Deterioration Preconstruction Permit for the Freeport LNG Development, L.P., Freeport LNG Liquefaction Project , PSD-TX-1302-GHG, at 12, 29-30 (Dec. 2, 2013), attached as Exhibit 7.

[18] Sierra Club, Comments on Freeport LNG Liquefaction Project –Permit No. PSD-TX-1302-GHG, at 3, 14-17 (Jan. 6, 2014), attached as Exhibit 8.

[19] UOP, *UOP Selexol Technology for Acid Gas Removal* (2009), available at: http://www.uop.com/?document=uop-selexol-technology-for-acid-gas-removal&download=1 and attached as Exhibit 9.

[20] Arthur L. Kohl and Richard B. Nielsen, Gas Purification, 5th Edition, Gulf Publishing Company, Chapter 14: Physical Solvent for Acid Gas Removal, 1997.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-14 (cont.) a low water content and a lower sulfur content and could go directly to a compression and smaller drying plant and then to a pipeline. CCS is also feasible for capture of turbine combustion emissions.

Turning to sequestration, Golden Pass could deliver captured CO_2 to the Denbury Green Pipeline, which would then transport CO_2 to regions where it could be sequestered. It appears that the terminal and pretreatment facility are within approximately 15 miles of the Denbury Green Pipeline.[21] Alternatively, the MP33 compressor station is within 0.25 miles of a CO_2 pipeline, DEIS at 4-4, presumably this one. Accordingly, it appears likely that CO_2 captured at the pretreatment facility could be delivered to this existing pipeline with minimal new pipeline construction, and with any such construction likely to parallel existing rights of way.

3. Severity and Significance of Greenhouse Gas Emissions

CO8-15 The DEIS states that the Golden Pass export project will emit more than 5.4 million tons per year of CO_2e. 4-125, 4-126, 4-132.[22] NEPA requires that, in addition to acknowledging these emissions, FERC "evaluate the severity" of these emissions, *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989), and inform decisionmakers and the public of these emissions "significance." 40 C.F.R. § 1502.16(a)-(b). To serve NEPA's "twin aims" of informing agency decisionmakers and the public, this evaluation must be in in terms that will meaningfully inform these intended audiences of the magnitude and consequences of these effects. *Natural Res. Def. Council v. Nuclear Regulatory Comm'n*, 685 F.2d 459, 487 n.149 (D.C. Cir. 1982) *rev'd on other grounds sub nom. Balt. Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 106-107 (1983); *Columbia Basin Land Prot. Ass'n v. Schlesinger*, 643 F.2d 585, 594 (9th Cir. 1981).

CO8-16 Here, the DEIS admits that these "emissions would increase the atmospheric concentration of GHGs, in combination with past and future emissions from all other sources, and contribute incrementally to climate change ...." DEIS 4-256.

[21] http://www.denbury.com/operations/operations-overview/default.aspx, attached as Exhibit 10.

[22] The DEIS states that "The GHG emissions associated with construction and operation of the Project are discussed in sections 4.11.1.4 and 0 [sic], respectively." DEIS 4-256. The DEIS contains no section "0." This and other cross-references to section 0 in the DEIS must be remedied in the final EIS.

CO8-15 As stated in section 4.13.2.11, there is currently no standard methodology to determine how the Project's incremental contribution to global GHGs would translate into physical effects on the environment global. Therefore, we reiterate that we cannot determine whether the Project's contribution to cumulative impacts on climate change would be significant. The EIS does identify the GHGs that would be emitted by the Project during construction and operation, as well as, the control technology that Golden Pass has incorporated into the Terminal design and permitted by the Texas Commission on Environmental Quality (TCEQ).

CO8-16 We disagree. The CEQ's February 18, 2010 *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* specifies that the threshold identified in the document is merely a "useful indicator," not a threshold of significance for agencies, to use in determining when to evaluate and disclose GHG emissions in NEPA documents. Further CEQ's guidance states that "agencies should recognize the scientific limits of their ability to accurately predict climate change effects, especially of a short-term nature, and not devote effort to analyzing wholly speculative effects." On December 18, 2014, the CEQ released a revised draft GHG emission guidance memo. As recommended in this new guidance, to the extent practicable, FERC staff incorporated additional guidance provided by this memo into the GHG analysis completed for the Project. Section 4.11 appropriately discloses the emissions of construction and operation of the Project. Section 4.13.2.11 identifies the impacts climate change has in the Southeast and Great Plains regions, the potential for climate change to impact the Project facilities, and the mitigation measures Golden Pass would implement to reduce GHG emission from the proposed facilities.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-16 (cont.) However, the DEIS is deficient because it provides no discussion whatsoever of the severity, significance, or importance of this incremental contribution. *Id.* The DEIS states that "Currently, there is no standard methodology to determine how the Project's incremental contribution to GHGs would translate into physical effects on the global environment. ... Because we cannot determine the Project's incremental physical impacts on the environment caused by climate change, we cannot determine whether the Project's contribution to cumulative impacts on climate change would be significant." *Id.*

Although FERC might prefer to base a discussion of severity on a prediction of the particular physical effects that would result from these Projects' emissions, NEPA regulations provide that once FERC determines that "the means to obtain" such a prediction "are not known, [FERC] *shall* ... evaluat[e] ... impacts based upon theoretical approaches or research methods generally accepted in the scientific community." 40 C.F.R. § 1502.22(b)(4) (emphasis added). At least two such "approaches" for assessing the impact of greenhouse gas emissions are available: calculating the impact attributable to these particular emissions using federal estimates of social cost of greenhouse gas emissions, and evaluating how these emissions would affect broader efforts to combat climate change by impacting achievement of federal emission reduction targets.

CO8-17 The social cost of carbon serves an important informational purpose, which is otherwise unmet here, by providing estimates of the severity of impacts to "agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services." Interagency Working Group on Social Cost of Carbon, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis* (Nov. 2013), at 2.[23] Merely disclosing the volume of greenhouse gases emitted, on the other hand, does not inform the public of the significance of the "cultural, economic, social, or health" impacts of these emissions. 40 C.F.R. § 1508.8.

The Social Cost of Carbon is explicitly designed to present "a defensible set of input assumptions grounded in the existing scientific and economic literatures." Interagency Working Group on Social Cost of Carbon, *Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis* (February 2010) 1.[24] The

[23] https://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf

[24] https://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf

CO8-17 The social cost of carbon tool is used to estimate the comprehensive costs associated with a project's GHG emissions. The tool provides monetized values, on a global level, of addressing climate change impacts and is intended for estimating the climate benefits of rulemakings and policy initiatives. While we recognize the availability of this tool, we believe that for the following reasons, it would not be appropriate or informative to use for this project: (1) the EPA states that "no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations" and consequently, significant variation in output can result; (2) the tool does not measure the actual incremental impacts of a project on the environment; and (3) there are no established criteria identifying the monetized values that are to be considered significant for NEPA purposes. While the tool may be useful for rulemakings or comparing alternatives using cost-benefit analyses where the same discount rate is consistently applied, it is not appropriate for estimating a specific project's impacts or informing the decision makers on the project.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-17 (cont.) method is "generally accepted" despite the lack of consensus on a *single, most* appropriate rate for discounting future costs. There is a consensus that the *range* of values presented in the tool "reflect reasonable judgments" and "span a plausible range." *Id.* at 23. The authors recommend presenting estimates of cost using this range of rates. *Id.* Following that recommendation is not difficult; indeed, FERC has done so for another project. FERC, Final EIS, Constitution Pipeline and Wright Interconnect Projects, CP13-499 (Oct. 2014), at 4-256 to 4-257 ("For 2015, the first year of project operation, ... the project's social cost of carbon for 2015 would be $1,638,708 at a discount rate of 5 percent, $5,325,802 at 3 percent, and $8,330,100 at 2.5 percent.").

CO8-18 In addition to estimating the social cost of greenhouse gas emissions, FERC should have examined the significance of these emissions by determining how they would impact federal efforts to address climate change by meeting specific emission reduction targets. In 2013, the President announced a strategy for achieving these targets, acknowledging that "climate change represents one of our greatest challenges of our time," which would require "broad-based," coordinated federal action to address. Executive Office of the President, *The President's Climate Action Plan* (June 2013), at 4. In light of the EIS's failure to otherwise inform the public of the impact of these emissions, and NEPA's purpose of fostering "[g]overnment coordination" and "comprehensive" approaches to environmental problems, *Morton*, 458 F.2d at 836, FERC should discuss the impact of this project on broader emission reduction goals.

B. **Ozone**

1. <u>The DEIS's Ozone Analysis, Which Merely Analogized to the Earlier Sabine Pass Project, Is Deficient</u>

CO8-19 The DEIS "analyzed" the impacts of project operation on ozone "through comparison of Project emissions with those of a similar project that performed a recent photochemical modeling study in the [Beaumont Port Arthur] area." DEIS 4-144 – 4-145. However, the DEIS has not shown that the "modeling analysis for the Sabine Pass LNG facility in 2011" is "representative" of the impact of Golden Pass. First, the two projects have significantly different emissions of ozone precursors. The Golden Pass Project will emit more than 273.3 tons per year of volatile organic chemicals, whereas the Sabine Pass Liquefaction project added emissions of only 88

CO8-18 We disagree. FERC staff appropriately coordinated efforts with other federal agencies in preparation of the EIS to disclose the Project's construction and operational impacts. Further, mitigation and emission reductions are more appropriately handled by the federal and state agencies, in this case the EPA and TCEQ, with the authority to impose such reductions to meet federal and state air quality goals. Also see response to comment CO8-7.

CO8-19 See response to comment CO8-12.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-19 (cont.) tons per year of VOC.[25] Second, the Sabine Pass analysis, performed for the first proposed LNG export facility in the area, considered baseline conditions than Golden Pass. Third, the Sabine Pass analysis considered whether that project would cause or contribute to violations of the old 75 parts per billion 8-hour ozone NAAQS, and therefore does not focus on the 70 ppb standard EPA finalized in the fall of 2015.[26]

2. Golden Pass's Late-filed CAMx Analysis, While Important, Does Not Obviate The Need for FERC NEPA Review

CO8-20 The DEIS further instructed Golden Pass to file "a complete photochemical modeling study of the Terminal Expansion" "[p]rior to the end of the draft EIS comment period." DEIS 4-145. Golden Pass filed this study on May 4, 2016, twelve days before the close of the comment period. This provides Sierra Club and other members of the public insufficient time to review this material.

In addition, the photochemical study is not a substitute for NEPA review. Although the study purports to show that the project will not cause a violation of the NAAQS for ozone, NEPA requires more than merely an analysis of whether a project will violate other environmental statutory requirements. For ozone in particular, a large body of scientific evidence indicates that ozone levels adversely impact human health even at levels that do not violate the present 70 ppb 8-hour standard. The Clean Air Scientific Advisory Committee ("CASAC") has explained that even "[a]t 70 ppb, there is substantial scientific evidence of adverse effects . . . , including decrease in lung function, increase in respiratory symptoms, and increase in airway inflammation."[27] CASAC explained that the 70 ppb, provides "little margin of safety for the protection of public health, particularly for sensitive subpopulations," and that the scientific evidence supports a standard as low as 60 ppb.[28] Even the 60 ppb level recommended in CASAC's June 2014 letter is not low enough to prevent

[25] Sabine Pass Liquefaction Project EA, CP11-72, at 2-56 (Dec. 2011).

[26] https://www.epa.gov/ozone-pollution/2015-national-ambient-air-quality-standards-naaqs-ozone; 80 Fed. Reg. 65,292 (Oct. 26, 2015).

[27] Frey, Christopher H., Dr. "CASAC Review of the EPA's Second Draft Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards." Letter to Gina McCarthy. 26 June 2014. Available at http://yosemite.epa.gov/sab/sabproduct.nsf/5EFA320CCAD326E885257D030071531C/$File/EPA-CASAC-14-004+unsigned.pdf and attached as Exhibit 11.

[28] Id.

CO8-20 We disagree. Sierra Club points to ranges of ozone standards that have not been adopted by EPA and speculatively predicts a future EPA proposed ozone standard. The EIS appropriately uses the current EPA established ozone standard, which is supported by EPA to be protective of human health and welfare. If EPA updates its standard in the future in a final rulemaking, we will evaluate projects in comparison with those established standards.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-20 (cont.) impacts to human health. For example, robust chamber studies show significant adverse health impacts to healthy adults exposed to 60 ppb for only 6.6 hours—indicating that sensitive populations such as children could be impacted at even lower levels of ozone, especially for the longer 8 hour timeframes used in setting the standard.[29] The photochemical modeling study submitted by Golden Pass indicates that Golden Pass will cause or contribute to ozone levels above 60 ppb. NEPA requires FERC to take a hard look at the impact of this effect. Neither the DEIS nor the photochemical modeling study do so.

CO8-21 Another flaw in the study submitted by Golden Pass is that its cumulative effects analysis appears to exclude some foreseeable projects. The analysis used a "base case" of an expected emission inventory for 2018. *Golden Pass Products LNG Export Project Ozone Photochemical Modeling Study* at 2-3. The study entirely fails to disclose what future projects were included in this inventory. FERC must explain what projects were included in the assessment of cumulative impacts.

Moreover, a base case of 2018, the first year of anticipated operation of the Golden Pass projects, almost certainly omits the full scope of foreseeable cumulative impacts. Other projects pending before FERC, such as proposed construction of additional liquefaction trains at the Sabine Pass, Cameron LNG, and Freeport facilities, will not be fully operational by January 2018. Golden Pass seeks authorization to operate for 20 years, and its emissions will therefore overlap with those of foreseeable post-2018 projects. NEPA requires FERC to take a hard look at the cumulative impact of these projects.

CO8-22 Finally, the photochemical study fails to provide the cumulative impact analysis required by NEPA because it uses an inappropriate baseline. Specifically, FERC must inform decisionmakers and the public of the cumulative increase in ambient ozone levels attributable to FERC-approved projects. To do this, FERC must compare the effects of FERC approvals, individually and cumulatively, with a "no action" baseline in which FERC denies all pending proposals in the affected area. As we have explained above, impacts on ozone levels can be significant even if ozone levels do not rise above the 70 ppb ozone NAAQS. Even if FERC determines

[29] Kim et al (2011). Lung function and inflammatory responses in healthy young adults exposed to 0.06 ppm ozone for 6.6 hours. Am J Respir Crit Care Med 183: 1215-1221, attached as Exhibit 12; Schelegle et al. (2009) concentrations from 60 to 87 parts per billion in healthy humans. Am J Respir Crit Care Med 180: 265-272 attached as Exhibit 13; Brown et al. (2008). Effects of exposure to 0.06 ppm ozone on FEV1 in humans: A secondary analysis of existing data. Environ Health Perspect 116: 1023-1026, attached as Exhibit 14.

CO8-21 The photochemical modeling was conducted in accordance with a modeling protocol outlined by EPA Region 6 and utilized a 2018 future emissions inventory developed by TCEQ. More information regarding the TCEQ emissions inventory can be found on the TCEQ Air Modeling FTP site: ftp://amdaftp.tceq.texas.gov/pub/TX/. In addition, section 4.13.2.11 of the EIS includes refined air dispersion modeling for operation of the project, marine vessels, and other offsite sources, and appropriately discloses the cumulative impact of the Project on regional air quality.

CO8-22 See response to comment CO8-21.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-22 (cont.) (through some analysis beyond that provided in the DEIS) that no individual project will cause a significant impact, the NEPA regulations recognize that "[c]umulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. Including all past and future FERC-jurisdictional activities in the baseline of the analysis for each individual project obscures the cumulative effect of FERC-approved projects. Accordingly, to determine the aggregate contribution of FERC-approved projects to regional ozone levels, FERC must juxtapose a baseline without any of those projects with an analysis of the cumulative effect of all proposed and foreseeable future facilities.

IV. Impacts of Vessel Traffic

A. The EIS Must Identify the Amount of Vessel Traffic Associated With The Proposed Exports.

CO8-23 FERC must acknowledge that, as a practical matter, the project will likely increase in utilization of existing facilities, in vessel traffic, and otherwise cause impacts relating to the revival of the entirely dormant facility. The applicant itself admits that "In the past few years ... there have been *no* LNG imports to the terminal." Application at 10 (emphasis added).

In discussing vessel traffic, nothing in the DEIS estimates how many ships will be associated with operation of the export facilities. Instead, the DEIS merely asserts that the number of ships, and thus impacts of shipping, will not be more than what FERC previously considered. *See, e.g.*, DEIS 4-35. This fails to provide decisionmakers and the public with a rational basis for choosing between the proposed action and the no action alternative. FERC must identify the number of ships that will be involved in operation of the export facility. Even if this number falls below the number previously approved, FERC must admit that, given the nearly negligible prospects of LNG imports, this vessel traffic will not occur unless FERC approves the export project.[30]

[30] More broadly, it is unclear how the export project, which seeks to export 2.7 bcf/d of LNG, can operate without requiring more shipping capacity than the import project, which only sought to import 2.0 bcf/d. FERC must explain how moving more gas won't require more ships.

CO8-23 The purpose of the EIS for the proposed modification of the Golden Pass facility is to provide NEPA review for those proposed modifications to the previously authorized Golden Pass LNG import project that could have environmental impacts beyond those previously analyzed. As discussed throughout the EIS, impacts on construction vessel traffic due to the modification of the facility are discussed in detail (e.g., section 4.3.2.2, section 4.6.3.1). There is no intent to modify the LNG vessel traffic as part of the proposed Project compared to that analyzed in the original EIS for the Golden Pass facility, so no additional analysis is warranted. The Coast Guard reinforced this position when it determined than no new Waterways Suitability Assessment was warranted for the proposed Project (as discussed in section 4.12.1.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-23 (cont.)

NEPA requires that each federal action be judged against a "no action" baseline. 42 U.S.C. § 4332(E); 40 C.F.R. §§ 1502.14(d), 1508.9. This baseline is intended to provide a fair "benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives." 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981). Here, if the proposed project is not approved, the existing LNG import terminal will likely see little, if any utilization, and therefore have minimal ongoing operational environmental impacts. Yet in many portions of the draft EIS, FERC masks the fact that the project would revive an otherwise moribund terminal, by measuring the project's effects against the level of activity previously authorized but never actually realized. Because the "current level of activity is used as a benchmark," *Custer Cty. Action Ass'n v. Garvey*, 256 F.3d 1024, 1040 (10th Cir. 2001), FERC cannot define the baseline in terms of environmental effects that, although potentially previously authorized, have never actually occurred and that will not actually occur in the future but for FERC action here. *Accord Cmtys. for a Better Env't v. S. Coast Air Quality Mgmt. Dist.*, 48 Cal.4th 310, 328, 106 Cal.Rptr.3d 502, 226 P.3d 985 (2010) ("An approach using hypothetical allowable conditions as the baseline results in 'illusory' comparisons that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with [the state environmental review statute's] intent.") (applying state NEPA-like statute). "NEPA procedures emphasize clarity and transparency of process," and, for this reason, "courts not infrequently find NEPA violations when an agency miscalculates the 'no build' baseline." *N.C. Wildlife Fed'n v. N.C. Dep't of Transp.*, 677 F.3d 596, 603 (4th Cir. 2012). Failing to provide complete baseline data, or relying on stale or misleading data, violates the statute's requirement that agencies provide a fair benchmark for their decisions. *See N. Plains Res. Council v. Surface Trans. Bd.*, 668 F.3d 1067, 1084-86 (9th Cir. 2011). FERC's analysis must therefore reflect the fact that if the proposed projects are authorized, the impacts will be greater than merely an increase over previously authorized, but never realized, activity.

Although 40 C.F.R. § 1502.20 permits agencies to "tier" off prior analyses in some circumstances, tiering can be improper if new issues have developed since the prior environmental analysis. *See W. Watersheds Project v. BLM*, 774 F. Supp. 2d 1089, 1098-99 (D. Nev. 2011). Although vessel traffic and other activities were analyzed in previous NEPA documents, FERC must do more than point to those analyses here. For example, once it is acknowledged that approving the project will cause greater vessel traffic than would result from project disapproval, FERC cannot simply point to the prior NEPA analysis as describing the effects of that traffic increase. Tiering off these prior analyses is inappropriate here because in the time since those

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-23 (cont.) analyses were completed, the area has suffered an increase in other activity and degradation of environmental quality, limiting the ability to withstand future environmental impacts. Here, the draft EIS does not address whether background levels of vessel traffic have increased since FERC's prior analyses were prepared.

B. Ballast Water

CO8-24 In addition, the prior analysis, concerning import traffic, did not address the effects of ballast water discharge, which occurs primarily for exports. The current DEIS states that the effects of ballast water discharge will be minimized by ensuring adherence to "EPA and the Coast Guard regulations that prevent the introduction of exotic species." DEIS 4-72. However, as Sierra Club has explained in comments on other export facilities, these regulations are insufficient to ensure that ballast water discharges do not harm the environment.

Ballast water discharge is governed by overlapping frameworks of USCG regulations and EPA's General Permit for vessel discharges. The USCG regulations are promulgated under the aegis of an interagency task force created by the Nonindigenous Aquatic Nuisance Prevention Act. 16 U.S.C §§ 4701 *et seq.* The most recent regulations were promulgated by the USCG in 2012.[31]

The General Permit fits within the Clean Water Act framework for regulating discharges into the waters of the United States. *See* Vessel General Permit for Discharges Incidental to Normal Operation of Vessels (effective Dec. 19, 2013), *available at* http://www.epa.gov/npdes/pubs/vgp_permit2013.pdf ("VGP"). It is a permit under the National Pollution Discharge Elimination System that applies to all non-military and non-recreational vessels over 79 feet long (a category that includes all LNG tankers), and it regulates 27 categories of discharge from such vessels, including ballast water. *See* VGP §§ 1.1-1.2. The EPA issued the most recent VGP in 2013.

The USCG regulations and the VGP ballast water provisions create a complementary scheme regulating ballast water discharges. Both regulatory mechanisms set limits on the number of particular types of organisms that may be present per volume in ballast water intended for discharge into United States waters, 33 C.F.R. § 151.2030; VPG § 2.2.3.5, and both give ship owners and operators a choice of procedures that they may undertake to meet those standards.

[31] Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters, 77 Fed. Reg. 17,254 (Mar. 23, 2012).

18

CO8-24 Ballast water, dredging, and effects on marine species are discussed in section 4.6.3.1 of the EIS. Note that the waterway has been dredged and heavily used for industrial processing and vessel traffic for decades. The Coast Guard is responsible for determining water treatment, not FERC or NOAA Fisheries.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-24 (cont.)

Owners and operators can choose between any of the following options to reduce the risk of invasive species:

- Install and operate on-ship a USCG-approved Ballast Water Management System ("BWMS");
- Fill ballast tanks only with water drawn from a U.S. municipal water system;
- Discharge ballast water to an on-shore facility or another vessel for treatment; or
- Retain ballast water within ballast tanks while in U.S. waters.

See 33 C.F.R. § 151.2025(a); VGP § 2.2.3.5.1.1-2.2.3.5.1.4.

The USCG regulations require that vessels constructed after December 1, 2013 have the BWMS installed on delivery, and other large vessels must employ a BWMS by their first scheduled dry-docking after January 1, 2016. 33 C.F.R. § 151.2035(b). However, the USCG has extended these deadlines because it has not yet approved *any* BWMS for use on ships.[32] Until these systems are approved and installed, ships have the additional option of engaging in ballast water exchange at least 200 nautical miles from shore.[33] Moreover, the Coast Guard has granted thousands of compliance extensions for lack of any approved system, the vast majority of which stretch to January 1, 2018.[34]

---

[32] Enforcement Response Policy for EPA's 2013 Vessel General Permit: Ballast Water Discharges and U.S. Coast Guard Extensions under 33 C.F.R. Part 151 (December 27, 2013), available at http://www2.epa.gov/sites/production/files/2013-12/documents/vesselgeneralpermit-erp.pdf.

[33] The interim ballast water management regime is outlined in a joint USCG and EPA enforcement response policy outlined in a December 2013 letter. *Id.* The USCG has granted extensions to vessels not compliant with the current ballast water discharge standards conditional upon their use of ballast water exchange in the interim, and the EPA has made violations of the VGP discharge standards by ships that have been granted such extensions a "low enforcement priority." *Id.*; *see also* Extension of Implementation Schedule for Vessels Subject to Ballast Water Management (BWM) Standards (Sept. 25 2013), *available at* http://www1.veristar.com/veristar/Dps_Info.nsf/1cc36b1a9995d368c1256f81002d8740/02cb86a73ef38a04c1257c0c002dae5b/$FILE/CG-OESPolicyLetter13-01.pdf.

34 U.S. Coast Guard, Approved Extensions to Compliance Dates under USCG Ballast Water Management Regulations (as of February 16, 2016), attached as Exhibit 15.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-24 (cont.)

More fundamentally, the EIS's discussion of ballast water discharge fails to consider the risk of invasive species introduction that remains even with full compliance with the most current regulations. As Professor Tamburri explains in his expert comments submitted regarding the Cove Point, Maryland export facility, the National Research Council considers the USCG's 2012 regulations a mere "first step" that would reduce but not eliminate this risk.[35] The regular influx of LNG tankers will create the "perfect scenario" for the introduction of invasive species.[36]

As explained by University of Maryland Professor Mario Tamburri in comments on another LNG export project,[37] FERC could substantially lessen the risk that ballast water discharges will introduce invasive species into the Bay by requiring a system for on-shore treatment of ballast water. As Professor Tamburri notes, shore-based systems are best used to mitigate the risk from ballast discharges when there are dedicated vessels, traveling consistent set routes, and with ballast discharge at one specific dock location—all of which would be the case for LNG carriers calling on Golden Pass. In light of the shortcomings of the regulatory regime, FERC should have required measures to mitigate the significant adverse effects.

Similarly, while the DEIS acknowledged the potential for invasive species introduction via fouling organisms attached to the hulls of LNG tankers visiting the Golden Pass facility, the DEIS is deficient because, as with ballast water discharge, FERC disregarded the significance of the threat by referring to USCG regulations. The USCG regulations simply require:

> (e) Rinse anchors and anchor chains when the anchor is retrieved to remove organisms and sediments at their places of origin.
>
> (f) Remove fouling organisms from the vessel's hull, piping, and tanks on a regular basis and dispose of any removed substances in accordance with local, State and Federal regulations.

[35] *Id.* at 3.

[36] *Id.* at 2.

[37] Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory, to Kimberley Bose, Federal Energy Regulatory Commission (June 2, 2014), Accession No. 20140602-5111 ("Tamburri June 2014 Letter"), attached as Exhibit 16; Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory, to Kimberley Bose, Federal Energy Regulatory Commission (Nov. 11, 2013), Accession No. 20131112-5030 ("Tamburri Nov. 2013 Letter"), attached as Exhibit 17.

20160516-5350 FERC PDF (Unofficial) 5/16/2016 4:24:23 PM

CO8-24 (cont.) 33 C.F.R. § 151.2050. The USCG does not provide more detailed guidance on specific procedures for rinsing anchors or the frequency at which vessels must be cleaned of fouling organisms. As Professor Tamburri explained, in failing to specify procedures to reduce the risk of fouling organisms, the regulations give ship owners and operators the discretion to choose their own procedures, which may not be effective.[33] FERC cannot simply assume that, in the absence of specified procedures for removing fouling organisms, the regulations will eliminate the substantial risk of introducing invasive species. Because fouling organisms can spread rapidly and unpredictably from ships, and are an equal or greater source of invasive species than ballast water, the risk to nearby waterways and activities that depend thereon is significant.

V. Conclusion

CO8-25 For the above reasons, the EA is deficient and an EIS addressing these deficiencies must be prepared. When the environmental impacts of the project are properly considered, it is clear that the Output Expansion is contrary to the public interest, and must be denied.

Respectfully submitted,

Nathan Matthews
Sierra Club Environmental Law Program
2101 Webster Street, Suite 1300
Oakland, CA 94612
(415) 977-5695

[33] *Id.* at 3.

CO8-25 An EIS was prepared for the Golden Pass LNG Export Project to properly address environmental impacts of the Project. Whether or not the Project is in the public interest will be determined by the Commission subsequent to the issuance of the final EIS based on environmental considerations (e.g., the EIS) and non-environmental considerations.

PUBLIC MEETINGS

PM1 – VFW Post 4759, Starks, Louisiana

1 BEFORE THE UNITED STATES
2 FEDERAL ENERGY REGULATORY COMMISSION
3
4
5
6
7
8 GOLDEN PASS LNG EXPORT PROJECT COMMENT MEETING
9 PROJECT NOS. CP14-517 and CP14-518
10 (STARKS, LOUISIANA)
11
VFW POST 4759
12 4402 LA HIGHWAY 12
STARKS, LOUISIANA 70661
13
14 APRIL 19, 2016
7:00 P.M.
15
16
17
18
19
20
21
22
23
24
25

In The Matter of: Golden Pass LNG Export Project - April 19, 2016

Page 2

APPEARANCES

MR. ERIC HOWARD
Federal Energy Regulatory Commission

MR. WAYNE KICKLIGHTER
MS. KIM SECHRIST
Cardno

REPORTED BY: Belynda Champagne, CCR-RPR

Page 3

PROCEEDINGS:

MR. HOWARD: Hello, I'm Eric Howard. On behalf of the Federal Energy Regulatory Commission, (also known as, the FERC), I would like to welcome all of you tonight. This is a comment meeting for the Golden Pass Liquefied Natural Gas, LNG, Export Project draft Environmental Impact Statement, or EIS. The U.S. Army Corps of Engineers, Environmental Protection Agency, U.S. Coast Guard, U.S. Department of Transportation, and U.S. Department of Energy cooperated in the preparation of this document, and I would like to thank them for their continued assistance with the EIS review process.

With me today is Wayne Kicklighter and Kim Sechrist with Cardno. Cardno is an environmental contractor who has helped in our preparation of the draft EIS.

Let the record show that the Starks comment meeting began at 7:04 p.m. on April 19th, 2016.

On March 25, 2016, we mailed about 500 CD copies of the draft EIS to individuals on our environmental mailing list, government

Page 4

agencies, local libraries and newspapers. If you did not receive a copy of our draft EIS, then you're not on mailing list. Please provide us with your address at the sign-in table after the meeting if you would like to receive a copy of the final EIS.

This is a project proposed by Golden Pass products, LLC and Golden Pass Pipeline, LLC (collectively referred to as Golden Pass). This project is not proposed by the FERC. Golden Pass filed applications under Sections 3 and 7 of the Natural Gas Act to expand and modify the existing Golden Pass LNG Import Terminal to allow the export of LNG which would require construction and operation of various liquefaction, LNG distribution, and appurtenant facilities. The project also includes construction of approximately 2.6 miles of 24-inch diameter pipeline, three new compressor stations, and interconnections for bi-directional transport of natural gas to and from the Golden Pass LNG Export terminal. The project is located in Orange and Jefferson Counties, Texas and Calcasieu Parish, Louisiana.

Page 5

We are currently in a 45-day comment period on the draft EIS. The comment period ends on May 16th, 2016. All comments that we receive within the comment period will be addressed in the final EIS. We have a speaker signed-up sheet at the back of the room. I would call individuals to speak one at a time. After the people that have signed in have provided their comment, I will ask if anyone else in the audience would like to speak.

The purpose of this meeting is for FERC to obtain your comments on the draft EIS and we take your environmental comments seriously. We give equal weight to your comments whether you decide to speak tonight, mail, or submit them electronically through our FERC website as we revise the draft EIS.

Specific instructions on how to file written or electronic comments are contained in the first couple of pages of the draft EIS. The more specific the comments we receive from you, the better we can address your concerns. General comment, such as, "I like or dislike the project," are not as helpful as specific comments. Our job over the next couple of

2 (Pages 2 to 5)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PUBLIC MEETINGS

PM1 – VFW Post 4759, Starks, Louisiana (cont'd)

In The Matter of: Golden Pass LNG Export Project - April 19, 2016

Page 6

1 months is to revise our environmental analysis
2 based on the types of comments that we
3 receive.
4 If you received a copy of the draft EIS,
5 you will automatically receive a copy of the
6 final. You do you not need to sign up for
7 another mailing list. Once we finish the
8 final EIS and mail it, we will forward it on
9 to the Commission at the FERC. The Commission
10 will consider our environmental analysis along
11 with non-environmental issues, such as
12 engineering, markets, and rates, in order to
13 determine to authorize or deny the project.
14 So, the EIS itself is one tool in the process.
15 It is not a decision making document.
16 Now we will begin the important part of
17 the meeting where we hear your comments. We
18 will first take comments from those who signed
19 the speaker list first, which was on the table
20 as you entered and if you prefer, you may hand
21 us written comments tonight or send them to
22 the Commission by following the procedures
23 outlined in the draft EIS. There's also a
24 form on the sign-in table that you can use to
25 provide comments and hand them directly to me,

Page 7

1 Kim, or Wayne. That form also gives
2 instructions on how to mail it to us.
3 You may have noticed that this meeting is
4 being recorded by a transcription service.
5 This is being done so that all of your
6 comments and questions will be transcribed and
7 put into the public record. To help the
8 transcriber produce an accurate record of this
9 meeting, please speak directly into the
10 microphone. I ask that when I call your name,
11 you come up to the microphone and facing the
12 front, state your name and spell it the
13 record. Identify any agency or group you're
14 representing, and define any acronyms that you
15 may use. I also ask that everybody else in
16 the audience respect the speaker and refrain
17 from any audible show of agreement or
18 disagreement. Before we hear from our first
19 speaker, I would ask that everyone silence
20 their phones.
21 The first I have signed up to speak is
22 David Daniel.
23 PM 1-1 MR. DAVID DANIEL: Good evening, David
24 D-a-v-i-d, Daniel, D-a-n-i-e-l. Hi, my name
25 is David Daniel. I'm from Lake Charles

Page 8

1 PM 1-1 cont'd Louisiana. I've been employee at Golden Pass
2 for the last eight years. I am in support of
3 the Golden Pass LNG project because as an
4 employee of Golden Pass, it provides for my
5 family, offers very good compensation and
6 competitive benefits, health care, dental
7 vision, 401-K, matching savings program, et
8 cetera. It's one of the most safest places to
9 work in the industry. Five years without
10 employee or contractor OSHA reportable injury.
11 As a Golden Pass employee, safety is a core
12 value and we walk the walk regarding safety of
13 all our employees. We have created a culture
14 of taking care of each other as employees as
15 well as our communities. The new proposed
16 expansion would create hundreds more permanent
17 jobs and bring stability and assurance back to
18 our existing employee and contractor
19 population.
20 We strive for excellence at Golden Pass
21 LNG in all we do, safety, environment,
22 operational excellence, controls and community
23 involvement. I'll stop right there. Thank
24 you.
25 MR. HOWARD: Thank you, Mr. Daniel.

Page 9

1 Reggie Collins.
2 PM 1-2 MR. REGGIE COLLINS: Good evening,
3 everyone. My name Reggie Collins,
4 R-e-g-g-i-e, C-o-l-l-i-n-s. I also live here
5 in Lake Charles. I've been at Golden Pass for
6 eight years. They provide an opportunity for
7 us and I support the proposed LNG export
8 because it cares about the employees and
9 contractors and also participate in our local
10 community funds. They like to give back to
11 the communities we operate in. We've been
12 active participants and contributed to local
13 United Way agencies since the first year as an
14 employee in 2008. We participate in the
15 events, support the local colleges and are
16 active members of Lamar Institute of
17 Technology Foundation and support the
18 activities of student body of Sabine Pass High
19 school. It's taught the employees to
20 participate in the community coordinating
21 employees, helping citizens of Sabine help
22 rebuild from hurricane funding 1.5 million
23 community service for the local residents of
24 Golden Pass, participate in annual beach
25 cleanup for kids and kid fishing camp and as

3 (Pages 6 to 9)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

L-80

PM1-1 The commentor's support for the Project is noted.

PM1-2 The commentor's support for the Project is noted.

PUBLIC MEETINGS

PM1 – VFW Post 4759, Starks, Louisiana (cont'd)

In The Matter of: Golden Pass LNG Export Project - April 19, 2016

Page 10

PM 1-2 cont'd

PM 1-3

1 an employee, we're proud to be associated with
2 the company at Golden Pass. Thank you.
3 MR. HOWARD: Thank you, Mr. Collins.
4 Travis Woods.
5 MR. TRAVIS WOODS: How you-all doing?
6 I'm Travis Wood, T-r-a-v-i-s, W-o-o-d-s. I
7 own and operate T & L Solutions. We're a
8 business group from Buna, Texas. I'm also
9 president of Gulf Coast Industrial Group in
10 Lake Charles with over 60 contractor members,
11 engineering groups, as well as general
12 contractors and pretty much all walks of life
13 in the contracting business. I'm also
14 president of the same Gulf Coast Industrial
15 group in Port Arthur, Texas, Port Arthur
16 Chamber of Commerce.
17 We are really excited about the project
18 coming to town as far as a project of this
19 magnitude touches so many people. It's kind
20 of like dominoes falling in nine directions.
21 You'll have a dirt contractor that will be
22 using a dump truck for the first time in
23 years. You'll have food vendors and it goes
24 all the way up to general contractor,
25 electrical contractors, as well as engineering

Page 11

1 groups. They will have a chance to get
2 involved.
3 Just to give you a for instance, the
4 Motiva project was 11 to 12 billion. It took
5 1200 contractors to do that contract. It
6 peaked out at 15,000 people on-site before the
7 job was over.
8 Okay. That touched a lot of lives, a lot
9 of mom and pop grocery stores that was able to
10 basically get a piece of the action and they
11 never stepped on-site but people getting fuel
12 to and from the project. It's just a real
13 exciting thing for this project to come to
14 town and I just wanted to let you-all know
15 that we're excited about it and anything we
16 can do to help, let us know. Thank you.
17 MR. HOWARD: Currently that's all the
18 speakers that I have signed in. Would anyone
19 from the audience care to speak?
20 (No Response)
21 MR. HOWARD: If not, I'll go ahead and
22 close the formal part of the meeting. Anyone
23 wishing to keep up with the official activity
24 associated with the Golden Pass LNG export
25 project, can use the FERC website at

Page 12

1 www.ferc.gov. Within our website, there's an
2 eLibrary link where you can type in the
3 numbers for this project. Those are CP14-517
4 and CP14-518. You can use eLibrary to gain
5 access to the documents on public record
6 concerning the project, including all the
7 public filings by Golden Pass agencies and
8 other landowners.
9 I, as well as other representatives of
10 Golden Pass, will stay in the room for a
11 little while longer after the meeting so you
12 may speak with us individually or ask
13 questions. If you would like immediate copies
14 of the transcription, please see the
15 transcriber. On behalf of the Federal Energy
16 Regulatory Commission, U.S. Army Corps of
17 Engineers, Environmental Protection Agency,
18 U.S. Coast Guard, U.S. Department of
19 Transportation and U.S. Department of Energy,
20 I want to thank all of you for coming here
21 tonight.
22 Let the record show that the Gold Pass
23 LNG export project comment meeting in Starks
24 Louisiana concluded at 7:17 p.m.
25 (Whereupon the proceedings were concluded)

4 (Pages 10 to 12)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM1-3 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 19, 2016

A

able 11:9
access 12:5
accurate 7:8
acronyms 7:14
Act 4:12
action 11:10
active 9:12,16
activities 9:18
activity 11:23
address 4:4 5:22
addressed 5:5
agencies 4:1 9:13 12:7
agency 3:10 7:13 12:17
agreement 7:17
ahead 11:21
allow 4:14
analysis 6:1,10
annual 9:24
applications 4:11
approximately 4:18
appurtenant 4:17
April 1:14 3:22
Army 3:9 12:16
Arthur 10:15,15
assistance 3:14
associated 10:1 11:24
assurance 8:17
audible 7:17
audience 5:10 7:16 11:19
authorize 6:13
automatically 6:5

B

back 5:6 8:17 9:10
based 6:2
basically 11:10
beach 9:24
began 3:21
behalf 3:3 12:15
Belynda 2:21
benefits 8:6
better 5:22
bi-directional 4:21
billion 11:4
body 9:18
bring 8:17
Buna 10:8
business 10:8,13

C

C 2:1 3:1
C-o-l-l-i-n-s 9:4
Calcasieu 4:24
call 5:7 7:10
camp 9:25
Cardno 2:7 3:17,17
care 8:6,14 11:19
cares 9:8
CCR-RPR 2:21
CD 3:23
cetera 8:8
Chamber 10:16
Champagne 2:21
chance 11:1
Charles 7:25 9:5 10:10
citizens 9:21
cleanup 9:25
close 11:22
Coast 3:10 10:9,14 12:18
collectively 4:9
colleges 9:15
Collins 9:1,2,3 10:3
come 7:11 11:13
coming 10:18 12:20
comment 1:8 3:6,21 5:1,2,4,9,23 12:23
comments 5:3,12,13 5:14,19,21,25 6:2 6:17,18,21,25 7:6
Commerce 10:16
Commission 1:2 2:4 3:4 6:9,9,22 12:16
communities 8:15 9:11
community 8:22 9:10,20,23
company 10:2
compensation 8:5
competitive 8:6
compressor 4:20
concerning 12:6
concerns 5:22
concluded 12:24,25
consider 6:10
construction 4:15 4:18
contained 5:19
continued 3:14
contract 11:5
contracting 10:13
contractor 3:18 8:10,18 10:10,21 10:24
contractors 9:9 10:12,25 11:5
contributed 9:12
controls 8:22
cooperated 3:12
coordinating 9:20
copies 3:24 12:13
copy 4:2,6 6:4,5
core 8:11
Corps 3:9 12:16
Counties 4:24
couple 5:20,25
CP14-517 1:9 12:3
CP14-518 1:9 12:4
create 8:16
created 8:13
culture 8:13
currently 5:1 11:17

D

D 3:1
D-a-n-i-e-l 7:24
D-a-v-i-d 7:24
Daniel 7:22,23,24 7:25 8:25
David 7:22,23,23 7:25
decide 5:15
decision 6:15
define 7:14
dental 8:6
deny 6:13
Department 3:11 3:12 12:18,19
determine 6:13
diameter 4:19
directions 10:20
directly 6:25 7:9
dirt 10:21
disagreement 7:18
dislike 5:23
distribution 4:16
document 3:13 6:15
documents 12:5
doing 10:5
dominoes 10:20
draft 3:7,19,24 4:2 5:2,12,17,20 6:4 6:23
dump 10:22

E

E 2:1,1 3:1,1
eight 8:2 9:6
EIS 3:8,15,19,24 4:2,6 5:2,5,12,17 5:20 6:4,8,14,23
electrical 10:25
electronic 5:19
electronically 5:16
eLibrary 12:2,4
employee 8:1,4,10 8:11,18 9:14 10:1
employees 8:13,14 9:8,19,21
ends 5:3
Energy 1:2 2:4 3:3 3:12 12:15,19
engineering 6:12 10:11,25
Engineers 3:9 12:17
entered 6:20
environment 8:21
environmental 3:8 3:9,18,25 5:13 6:1 6:10 12:17
equal 5:14
Eric 2:3 3:2
et 8:7
evening 7:23 9:2
events 9:15
everybody 7:15
excellence 8:20,22
excited 10:17 11:15
exciting 11:13
existing 4:13 8:18
expand 4:12
expansion 8:16
export 1:8 3:7 4:14 4:22 9:7 11:24 12:23

F

facilities 4:17
facing 7:11
falling 10:20
family 8:5
far 10:18
Federal 1:2 2:4 3:3 12:15
FERC 3:4 4:10 5:11 5:16 6:9 11:25
file 5:18
filed 4:11
filings 12:7
final 4:6 5:5 6:6,8
finish 6:7
first 5:20 6:18,19 7:18,21 9:13 10:22
fishing 9:25
Five 8:9
following 6:22
food 10:23
form 6:24 7:1
formal 11:22
forward 6:8
Foundation 9:17
front 7:12
fuel 11:11
funding 9:22
funds 9:10

G

G 3:1
gain 12:4
gas 3:7 4:12,21
general 5:23 10:11 10:24
getting 11:11
give 5:14 9:10 11:3
gives 7:1
go 11:21
goes 10:23
Gold 12:22
Golden 1:8 3:6 4:7 4:8,9,11,13,22 8:1 8:3,4,11,20 9:5 10:2 11:24 12:7 12:10
good 7:23 8:5 9:2
government 3:25
grocery 11:9
group 7:13 10:8,9 10:15
groups 10:11 11:1
Guard 3:10 12:18
Gulf 10:9,14

H

hand 6:20,25
health 8:6
hear 6:17 7:18
Hello 3:2
help 7:7 9:21 11:16
helped 3:18
helpful 5:24
helping 9:21
Hi 7:24
High 9:18
HIGHWAY 1:12
Howard 2:3 3:2,2 8:25 10:3 11:17 11:21
hundreds 8:16
hurricane 9:22

I

Identify 7:13

In The Matter of: Golden Pass LNG Export Project - April 19, 2016

Page 2

immediate 12:13
Impact 3:8
Import 4:13
important 6:16
includes 4:18
including 12:6
individually 12:12
individuals 3:24 5:7
Industrial 10:9,14
industry 8:9
injury 8:10
instance 11:3
Institute 9:16
instructions 5:18 7:2
interconnections 4:20
involved 11:2
involvement 8:23
issues 6:11

J

Jefferson 4:23
job 5:25 11:7
jobs 8:17

K

keep 11:23
Kicklighter 2:6 3:16
kid 9:25
kids 9:25
Kim 2:6 3:17 7:1
kind 10:19
know 11:14,16
known 3:4

L

L 10:7
LA 1:12
Lake 7:25 9:5 10:10
Lamar 9:16
landowners 12:8
libraries 4:1
life 10:12
link 12:2
liquefaction 4:16
Liquefied 3:6
list 3:25 4:3 6:7,19
little 12:11
live 9:4
lives 11:8
LLC 4:8,8
LNG 1:8 3:7 4:13 4:14,16,22 8:3,21 9:7 11:24 12:23
local 4:1 9:9,12,15 9:23
located 4:23
longer 12:11
lot 11:8,8
Louisiana 1:10,12 4:25 8:1 12:24

M

magnitude 10:19
mail 5:15 6:8 7:2
mailed 3:23
mailing 3:25 4:3 6:7
making 6:15
March 3:23
markets 6:12
matching 8:7
meeting 1:8 3:6,21 4:5 5:11 6:17 7:3 7:9 11:22 12:11 12:23
members 9:16 10:10
microphone 7:10 7:11
miles 4:19
million 9:22
modify 4:13
mom 11:9
months 6:1
Motiva 11:4

N

N 2:1 3:1
name 7:10,12,24 9:3
natural 3:7 4:12,21
need 6:6
never 11:11
new 4:19 8:15
newspapers 4:1
nine 10:20
non-environmental 6:11
NOS 1:9
noticed 7:3
numbers 12:3

O

O 3:1
obtain 5:12
offers 8:5
official 11:23
Okay 11:8
on-site 11:6,11
Once 6:7
operate 9:11 10:7
operation 4:15
operational 8:22
opportunity 9:6
Orange 4:23
order 6:12
OSHA 8:10
outlined 6:23

P

P 2:1,1 3:1
p.m 1:14 3:21 12:24
pages 5:20
Parish 4:24
part 6:16 11:22
participants 9:12
participate 9:9,14 9:20,24
Pass 1:8 3:6 4:7,8,9 4:11,13,22 8:1,3,4 8:11,20 9:5,18,24 10:2 11:24 12:7 12:10,22
peaked 11:6
people 5:8 10:19 11:6,11
period 5:2,2,4
permanent 8:16
phones 7:20
piece 11:10
pipeline 4:8,19
places 8:8
please 4:3 7:9 12:14
pop 11:9
population 8:19
Port 10:15,15
POST 1:11
prefer 6:20
preparation 3:13 3:19
president 10:9,14
pretty 10:12
procedures 6:22
proceedings 12:25
process 3:15 6:14
produce 7:8
products 4:8
program 8:7
project 1:8,9 3:7 4:7,10,17,23 5:24 6:13 8:3 10:17,18 11:4,12,13,25 12:3,6,23
proposed 4:7,10 8:15 9:7
Protection 3:10 12:17
proud 10:1
provide 4:4 6:25 9:6
provided 5:9
provides 8:4
public 7:7 12:5,7
purpose 5:11
put 7:7

Q

questions 7:6 12:13

R

R 2:1 3:1
R-e-g-g-i-e 9:4
rates 6:12
real 11:12
really 10:17
rebuild 9:22
receive 4:2,6 5:4,21 6:3,5
received 6:4
record 3:20 7:7,8 7:13 12:5,22
recorded 7:4
referred 4:9
refrain 7:16
regarding 8:12
Reggie 9:1,2,3
Regulatory 1:2 2:4 3:3 12:16
reportable 8:10
REPORTED 2:21
representatives 12:9
representing 7:14
require 4:15
residents 9:23
respect 7:16
Response 11:20
review 3:15
revise 5:17 6:1
right 8:23
room 5:6 12:10

S

S 2:1 3:1
Sabine 9:18,21,24
safest 8:8
safety 8:11,12,21
savings 8:7
school 9:19
Sechrist 2:6 3:17
Sections 4:11
see 12:14
send 6:21
seriously 5:13
service 7:4 9:23
sheet 5:6
show 3:20 7:17 12:22
sign 6:6
sign-in 4:4 6:24
signed 5:8 6:18 7:21 11:18
signed-up 5:6
silence 7:19
Solutions 10:7
speak 5:7,10,15 7:9 7:21 11:19 12:12
speaker 5:5 6:19 7:16,19
speakers 11:18
specific 5:18,21,24
spell 7:12
stability 8:17
Starks 1:10,12 3:20 12:23
state 7:12
Statement 3:8
STATES 1:1
stations 4:20
stay 12:10
stepped 11:11
stop 8:23
stores 11:9
strive 8:20
student 9:18
submit 5:15
support 8:2 9:7,15 9:17

T

T 10:7
T-r-a-v-i-s 10:6
table 4:5 6:19,24
take 5:13 6:18
taught 9:19
Technology 9:17
terminal 4:14,22
Texas 4:24 10:8,15
thank 3:14 8:23,25 10:2,3 11:16 12:20
thing 11:13
three 4:19
time 5:7 10:22
today 3:16
tonight 3:5 5:15 6:21 12:21
tool 6:14

touched 11:8
touches 10:19
town 10:18 11:14
transcribed 7:6
transcriber 7:8 12:15
transcription 7:4 12:14
transport 4:21
Transportation 3:11 12:19
Travis 10:4,5,6
truck 10:22
type 12:2
types 6:2

U

U.S 3:9,10,10,11 12:16,18,18,19
United 1:1 9:13
use 6:24 7:15 11:25 12:4

V

value 8:12
various 4:16
vendors 10:23
VFW 1:11
vision 8:7

W

W-o-o-d-s 10:6
walk 8:12,12
walks 10:12
want 12:20
wanted 11:14
way 9:13 10:24
Wayne 2:6 3:16 7:1
we're 10:1,7 11:15
We've 9:11
website 5:16 11:25 12:1
weight 5:14
welcome 3:5
wishing 11:23
Wood 10:6
Woods 10:4,5
work 8:9
written 5:19 6:21
www.ferc.gov 12:1

X

Y

year 9:13
years 8:2,9 9:6
10:23
you-all 10:5 11:14

Z

0

1

1.5 9:22
11 11:4
12 1:12 11:4
1200 11:5
15,000 11:6
16th 5:3
19 1:14
19th 3:22

2

2.6 4:18
2008 9:14
2016 1:14 3:22,23 5:3
24-inch 4:19
25 3:23

3

3 4:12

4

401-K 8:7
4402 1:12
45-day 5:1
4759 1:11

5

500 3:23

6

60 10:10

7

7 4:12
7:00 1:14
7:04 3:21
7:17 12:24
70661 1:12

PUBLIC MEETINGS

PM2 – Sabine Pass High School, Sabine Pass, Texas

1 BEFORE THE UNITED STATES
2 FEDERAL ENERGY REGULATORY COMMISSION
3
4
5
6
7
8
9 GOLDEN PASS LNG EXPORT PROJECT COMMENT MEETING
10 PROJECT NOS. CP14-517 and CP14-518
11 (SABINE PASS, TEXAS)
12
SABINE PASS HIGH SCHOOL
13 5641 SOUTH GULFWAY DRIVE
SABINE PASS, TEXAS 77655
14
15 APRIL 20, 2016
7:09 P.M.
16
17
18
19
20
21
22
23
24
25

Page 2

APPEARANCES

MR. ERIC HOWARD
Federal Energy Regulatory Commission

MR. WAYNE KICKLIGHTER
MS. KIM SECHRIST
Cardno

REPORTED BY: Belynda Champagne, CCR-RPR

Page 3

PROCEEDINGS:

MR. HOWARD: Good evening. I'm Eric Howard. I'm the FERC environmental project manager for this project. On behalf of the Federal Energy Regulatory Commission, also known as the FERC, I would like to welcome all of you tonight.

This is a comment meeting for the Golden Pass Liquefied Natural Gas, LNG, export project draft environment impact statement, or EIS.

The U.S. Army Corps of Engineers, Environmental Protection Agency, U.S. Coast Guard, U.S. Department of Transportation and U.S. Department of Energy cooperated in the preparation of this document, and I would like to thank them for their continued assistance with the EIS review process.

With me today is Wayne Kicklighter -- he was at the entrance as you came in today -- and Kim Seacrest. They're both with Cardno. Cardno is an environmental contractor who has helped in the preparation of the draft EIS.

Let the record show that the Sabine Pass comment began at 7:09 p.m., on April 20th,

Page 4

2016.

On March 25th, 2016, we mailed out 500 CD copies of the draft EIS to individuals who are on our environmental mailing list, governmental agencies, local libraries and newspapers.

If you did not receive a copy of the draft EIS, then you're not on our mailing list. Please provide us with your address at the sign-in table after the meeting, if you would like to receive a copy of the final EIS.

This is a project proposed by Golden Pass Products, LLC and Golden Pass Pipeline, LLC, collectively referred to as "Golden Pass." This project is not proposed by the FERC.

Golden Pass filed applications under Sections 3 and 7 of the Natural Gas Act to expand and modify the existing Golden Pass LNG import terminal to allow the export of LNG, which would require construction and operation of various liquefaction, LNG distribution and appurtenant facilities.

The project also includes construction of approximately 2.6 miles of a 24-inch-diameter pipeline, three new compressor stations, and

Page 5

interconnections provide directional transport of natural gas to and from the Golden Pass LNG export terminal.

The project is located in Orange and Jefferson counties, Texas and Calcasieu Parish, Louisiana.

We are currently on a 45-day comment period on the draft EIS. The comment period ends on May 16, 2016. All comments that we received within the comment period will be addressed in the final EIS.

We have a speaker sign-up sheet at the back of the room, actually, at the entrance. I will call individuals to speak one at a time after the people that have signed in have provided their comment, otherwise, if anyone else in the audience would like to speak.

The purpose of this meeting is for FERC to obtain your comments on the draft EIS, and we take your environmental comments seriously. We give equal weight to your comments, whether you decide to speak tonight, mail or submit them electronically through our FERC website, as we revise the draft EIS.

Specific instructions on how to file

PUBLIC MEETINGS

PM2 – Sabine Pass High School, Sabine Pass, Texas (cont'd)

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 6

written or electronic comments are contained in the first couple of pages of the draft EIS.

The more specific the comments we receive from you, the better we can address your concerns. General comments, such as "I like" or "dislike the project" are not as helpful as specific comments.

Our job over the next couple of months is to revise our environmental analysis based on the types of comments that we receive.

If you received a copy of the draft EIS, you will automatically receive a copy of the final. You do not need to sign another mailing list.

Once we finished the final EIS and mailed it, we will forward it onto the commission at the FERC. The commission will consider our environmental analysis along with non-environmental issues, such as engineering, markets and rates, in order to determine to authorize or deny the project. So, the EIS itself is one tool in the process. It is not a decision-making document.

Now, we will begin the important part of the meeting where we hear your comments. We

Page 7

will first take comments from those who signed in on the speaker list.

If you would prefer, you may hand us written comments tonight or send them to the commission by the following procedures outlined in the draft EIS.

There is also a form at the sign-in table that you can use to provide comments and hand them directly to me, Wayne, or to Kim. That form also gives instructions on how to mail it to us.

You may have noticed that this meeting is being recorded by a transcription service. This is being done so that all of your comments and questions will be transcribed and put into the public record.

To help the transcriber produce an accurate record of this meeting, please speak directly into the microphone.

I ask that when I call your name, you come up to the microphone, which is going to be at this podium to my right or your left, facing the front, toward us, and state your name and spell it for the record, identify any agency or group you're representing and define

Page 8

any acronyms that you may use.

I also ask that everyone else in the audience respect the speaker and refrain from any audible show of agreement or disagreement.

Before we hear from our first speaker, I will ask that everyone, please, silence their phones.

The first person I have on the sign-up sheet is Jeff Hayes.

PM 2-1

MR. HAYES: Thank you very much.

Eric, my name is Jeff Hayes. Hayes Real Estate. I hope you can hear me.

MR. HOWARD: Spell your name.

MR. HAYES: Jeff, J-E-F-F. Hayes, H-A-Y-E-S.

I would like to say I did get a copy and -- of your executive summary.

On Page 7 of the executive summary, I would like to agree especially with that last point: "FERC's environmental and engineering inspection and mitigation-monitoring program for this project would ensure compliance with all mitigation measures and conditions of any FERC authorization."

I'm familiar with this site before Golden

Page 9

PM 2-1 cont'd

Pass started. A good friend of mine used to run cows there. I think this company is very environmentally friendly, and they take their duty to this Country and to our nature here very seriously.

I just want to tell you the first time I ever heard of Golden Pass. Fr. Sinclair Oubre, who runs the seaman center in Port Arthur, called me and said, "There's going to be a new facility, and we're trying to finish up our center on Houston Avenue in Port Arthur."

He said, "I want to have lunch with them and I wish you would join us and maybe you can ask them for the money."

So, I said, "Well, Fr. Oubre, how much money do you want?"

And he said, "Well, $10,000."

And so, we were having lunch and I asked for the $10,000. This company said, "We're going to double that. We're going to do $20,000."

And this was very important at the time for the seaman center that takes care of people bringing this product now out of this

3 (Pages 6 to 9)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

L-87

PM2-1 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 10

PM 2-1 cont'd

facility and go all over the world.

They've been good citizens when they thought that the import of natural gas would be the right thing to do, but you-all know that the economics changed on that.

I want to just say that these are good people. They'll do what they say they're going to do and this is a -- if you go to the site now, it's well-done, and they didn't cut corners.

Thank you very much.

MR. HOWARD: Thank you, Mr. Hayes.

Our next speaker is Bill McCoy.

PM 2-2

MR. McCOY: My name is Bill McCoy, B-I-L-L M-C-C-O-Y. I live at 7831 Golfhill in Port Arthur, Texas 77642. I'm also the president and CEO of the Greater Port Arthur Chamber of Commerce.

We've been an economic development organization in Port Arthur since 1899. For 116 years, this chamber has worked with partners to attract industry.

Golden Pass, generating 9,000 jobs, 3,000 at their peak, 45,000 across the nation, and millions of dollars in property taxes, is very

Page 11

important to an area with a high unemployment rate. We need those jobs. We need those taxes.

We also understand they have to be environmentally responsible. This company already has demonstrated that with the setting aside of 800 acres for the ecosystem and animal preserve.

They've also contributed 3 million cubic yards of material to renew the J.D. Murphree Wildlife Park and System after Hurricane Ike devastated it in 2008.

They belong to our education foundation. They recognize the importance of education in our community.

They recognize the importance of safety, having an outstanding safety record. They care about the community. They care about the environment and we need those folks here, and we speak very much in support of expediting this permit so that we can attract those jobs and those taxes to the city of Port Arthur, Texas.

Thank you.

MR. HOWARD: Our next speaker is Fred

Page 12

Jackson.

MR. JACKSON: I'm Fred Jackson, F-R-E-D J-A-C-K-S-O-N.

Do you need my address?

MR. HOWARD: No.

PM 2-3

MR. JACKSON: I'm here on behalf of Judge Branick, who is in Austin for a series of meetings. I'm here to speak for him, myself.

I know Commissioner Alfred from our commissioners court is here. Commissioner Sinegal is here and I may -- I'm going to take the liberty of trying to speak for them. They may be signed up, but we have learned in working with Golden Pass, that these are people of integrity. They have gone overboard to do more than they've ever promised, delivering on their construction, safety -- you name it.

Now, I'll build on what Mr. McCoy said. They have partnered with us on a number of environmental projects, the McFaddin Wildlife Refuge, they helped us, along with Ducks Unlimited, Texas Parks & Wildlife, U.S. Conservation, U.S. Fish and a number of others, with the use -- beneficial use of

Page 13

dredge material, trying to improve our ecosystem and the marshes, which are vital to our shrimping, fishing, crabbing and recreational, birding and other interests we all have that are a big part of our economy.

Along with the thousands of jobs they've already created and they will create with this project, we would want to make it clear we see them not just as a local interest but as a strategic necessity.

They've been good stewards. They've handled the land well, all they've been in charge with.

They've been great citizens here locally, helping build a new community center for over a million and a half dollars. They helped rebuild this community. They employ people from here. They're very interested in our school district.

They've contributed in every conceivable way you can think of and we are proud to have them here. I know that they'll continue to overperform, as they have, and I would say that we see any delay in granting this FERC permit as being detrimental in every way you

4 (Pages 10 to 13)

202-347-3700 Acc-Federal Reporters, Inc. 866-928-6509

PM2-2 The commentor's support for the Project is noted.

PM2-3 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 14

PM 2-3 cont'd

can conceive of.

Thank you.

MR. HOWARD: Dade Phelan.

If I pronounce anyone's name wrong, please correct me.

PM 2-4

MR. PHELAN: That was an excellent job. It's usually "Dale Failin" or something else, but that's an excellent job.

Where are you from?

MR. HOWARD: Tennessee.

MR. PHELAN: That's okay. That's fine. It's a great night to talk about LNG. I appreciate you-all being here. Thank you, FERC, for giving us the opportunity. Of course, Golden Pass LNG, thank you-all for being such great community partners here in Southeast Texas.

I can go on and on about the investment and what it means to this region, but, really, we're here to talk about the environment and Golden Pass' record here in Southeast Texas and some of the facts have already been brought up.

There are 800, you know -- actually, 3 million cubic yards of material used to

Page 15

restore the J.D. Murphree Wildlife Management Area had been brought up. They also contributed more than 800 acres of forest lands -- forest and wetlands for wildlife protection here in Southeast Texas.

What they did after Hurricane Ike -- and you, you know, being from Tennessee, may not understand what a hurricane does to a community, but it can be devastating and the saltwater intrusion here, where we stand right now, was devastating for Sabine Pass and for all of Southeast Texas.

Golden Pass came in and got both feet on the ground. They were unbelievably supportive of this community. They spent one and a half million dollars for the new community center, which I was at last week, to unveil a new boat launch that LNG was actually involved in it, as well as Parks & Wildlife and Ducks Unlimited. The list goes on and on.

I was at a clay fund shoot for LIT, in which Golden Pass was one of the original corporate sponsors of and LIT is -- they train and workforce development men and women here in Southeast Texas, they actually built these

Page 16

PM 2-4 cont'd

facilities and Golden Pass has been a huge supporter of LIT.

I can tell you it's tough sometimes to get the state to understand what LIT does for this community as far as workforce development. Golden Pass, they're well aware of that.

I should have mentioned I'm the state representative here for Southeast Texas. You're in my district right now. Welcome.

I actually am a property owner directly across an LNG facility. If you hit a golf ball -- if you're good enough to hit a golf ball straight, you'd hit a piece of property that I own. So, I have a vested interest in this neighborhood.

I also represent all of Orange County where the pipeline goes through before it hits Calcasieu Parish. I have not run into one individual who opposes this project, not a single person. We are -- we welcome them with open arms.

I think "overperform" was a word that was used very well by Mr. Jackson. That's all Golden Pass has done since they've been here,

Page 17

is they've overperformed and, you know, I agree with the impact statements.

I got the CD. I'm going to be honest. I didn't go through the whole thing. When you get a CD these days, it means it's too lengthy to E-mail. So, I didn't read the whole thing.

I did read the parts about -- where you conclude the new facility would not result in significant environmental impacts and I agree with that 100 percent.

I think this community does and I know -- I speak for at least the folks I've met with on this matter here in Jefferson and Orange County, and we're in full support of that.

I appreciate the opportunity to speak. Thank you.

MR. HOWARD: The next speaker is Elizabeth Cravens.

PM 2-5

MS. CRAVENS: It's Elizabeth Cravens, E-L-I-Z-A-B-E-T-H C-R-A-V-E-N-S.

Thank you for providing us the opportunity to speak in support of the proponent's Golden Pass LNG export project.

I started Mid-America Contractors about 12 years ago, with offices now in Port Arthur,

5 (Pages 14 to 17)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM2-4 The commentor's support for the Project is noted.

PM2-5 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 18

PM 2-5 cont'd

Groves and Deer Park, Texas.

Mid-America is a certified woman-owned business and historically underutilized business that offers a range of industrial services, including pre-engineered buildings, steel erections, scaffolding, industrial insulation and field maintenance.

The reality is being a woman in a male-driven industry means that my company's services need to be the very best, most cost-effective and timely in order to compete for work. It has taken a lot of hard work and determination to get Mid-America where it is today.

Tens of billions of dollars have been invested in new industrial projects in our area in the past few years. Every industrial project promised to hire local businesses, like mine, but most never delivered.

Golden Pass decided that the status quo was unacceptable and found a creative solution to give local businesses a fair shake.

In October of 2015, Golden Pass announced a local business initiative to sign up businesses from Jefferson County to get

Page 19

pre-screened and placed on a priority list that would be included in the tender package that goes out to EPC's bidding on this project.

More than 180 local businesses signed up for the initiative and Golden Pass paid all of those fees, which range from $750 to $1,000 a piece. That's never been done before.

I'm proud to say Mid-America successfully completed pre-screening and was placed on the priority list along with a few other industrial contractors. It's a level playing field where businesses are evaluated on their merits. A female business owner, like myself, it's all I ask.

I support the proposed export project because Golden Pass recognizes that their opportunity can be our opportunity.

In closing, Golden Pass has given me a reason to believe that a company like ours can and will be treated equally and fairly, no strings attached. As a woman, that is the best feeling, in a male-dominated industry, one can have.

I run my business in the straight and

Page 20

PM 2-5 cont'd

narrow, and it's refreshing to see a company the size of GP LNG do the same.

For this reason, I encourage the FERC to view the project favorably, issue the final environmental impact statement and schedule, and authorize Golden Pass to site, construct and operate this project.

Thank you.

MR. HOWARD: Our next speaker is Regina Lindsey.

PM 2-6

MS. LINDSEY: It's Regina, R-E-G-I-N-A, Lindsey, L-I-N-D-S-E-Y, and I'm the president and CEO of the Greater Beaumont Chamber of Commerce and an active member of the original Economic Development Initiative. I'm here to voice my support for the project as well, the Golden Pass LNG export project.

One thing I would like to start off, and I'm not going to repeat a lot of the details that have already been heard but maybe just build on some of that, is that this is an area that is stitched in a psychological approach of understanding the balance of the needs of a very good job, balanced with a quality of life that most people in this area really find in

Page 21

the outdoors.

We have a lot of hunters, a lot of fishermen. We have a lot of birders in this area, a lot of hikers that get out and enjoy the unique flora and fauna of this area and this area will get out and speak out against a project that they feel is going to be environmentally detrimental.

As Representative Phelan has said, you're not finding that in the community with this project. Everyone is very supportive of this project.

That is because this is a company that has really taken a balanced approach of making sure that they minimize any sort of environmental impact and improving the environmental -- the environment of the area, as well as providing those jobs that were outlined by Bill.

What I would like to add to the discussion of the number of jobs is the fact that our labor pool draws from a wide range of communities: Jefferson, Hardin, Orange, Newton, Jasper and Southwest Louisiana.

Those counties are comprised of very

6 (Pages 18 to 21)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM2-6 The commentor's support for the Project is noted.

PUBLIC MEETINGS

PM2 – Sabine Pass High School, Sabine Pass, Texas (cont'd)

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 22

PM 2-6 cont'd

rural communities, as well as suburban and urban areas. So, you have the opportunity for people who live in very small communities, as well as metropolitan areas, to access these jobs, and that is an important result of a project like this.

In addition to the local business initiative that was addressed by the business owner, I would just like to say that she is right, and that this is a unique project right now in economic development. In fact, we have recommended them for several awards in the economic development field because of that.

This is an initiative that we -- that I feel strongly as an economic development professional that should be replicated in corporate America, and we are proud to have them in our community and urge you to look favorably on this draft and issue the final EIS as scheduled.

Thank you.

MR. HOWARD: The next speaker is Jerry Foster.

PM 2-7

MR. FOSTER: My name is Jerry Foster, J-E-R-R-Y F-O-S-T-E-R. I live in Orange,

Page 23

Texas. I've been an employee of Golden Pass for six years.

I'm not a public speaker. In fact, it's one of my greatest fears in life. So, that should indicate to you how important this is to me.

I support the proposed Golden Pass LNG export project because as an employee of Golden Pass, it provides for my family. It's one of the safest places to work in the industry. We consider safety a core value, and we walk the talk regarding safety for our employees.

The new proposed expansion would create a hundred more -- hundreds more permanent jobs to bring stability and assurance back to our existing workforce and contractor population. That would give those the means to provide for their families and also work in one of the safest places to work in the industry.

We strive for excellence in all that we do: Safety, environmental, operational excellence, controls and community involvement.

Golden Pass participates in local

Page 24

PM 2-7 cont'd

voluntary community functions -- you've heard some of those this evening -- in the communities in which we operate. We participate in events that support local colleges and active members of the Lamar Institute of Technology Foundation.

We support activities and the student body here at Sabine Pass High School. Some of the young men and women at this high school and many other local high schools and colleges are finding their paths in life right now and their career futures. This project will provide them with some of the opportunities to work at one of the safest places in the industry.

Golden Pass has sought the employee base to be an active participant and community leader. You've heard many examples of that. I will mention one additional one and one of my favorites. That was the participation in the annual beach cleanup and the kid fish events. We encourage participation in community outreach and school programs.

As an employee, I'm proud to be associated with a company such as Golden Pass

Page 25

LNG.

I thank you for the opportunity to state my support for the Golden Pass export project. I urge FERC to look favorably on the Golden Pass draft EIS and issue the final EIS as scheduled.

Thank you.

MR. HOWARD: The next speaker is Dwaine Staudenmier.

PM 2-8

MR. STAUDENMIER: Dwaine Staudenmier. You could definitely spell my last name, but it's D-W-A-I-N-E S-T-A-U-D-E-N-M-I E.R.

And I just want to speak a little bit on the perspective of -- from an employee. It's kind of like Jerry did.

Actually, after hearing some of the comments from everybody else, it really makes me much more prouder than I already were -- was to be an employee of Golden Pass, to be thought of as we are in the community.

As an employee for Golden Pass, some of the things that they do for us -- we all go to work to make money. We all are in business to make money and as we go to work, we go to work for our families. Family there is the most

7 (Pages 22 to 25)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM2-7 The commentor's support for the Project is noted.

PM2-8 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 26

PM 2-8 cont'd

important thing.

Golden Pass is a family -- is my second family. They provide good benefits for my family: Health care, dental, vision, 401. They're very competitive compared to the other industries.

I've been in the business for a little over 20 years, for other well-known companies as well, and Golden Pass' value on safety is equal to or probably surpasses some of the other ones that I worked with. It makes me very proud to work there.

As Mr. Hayes said earlier about how diligent we are and how confident we are that he is with us and steward of the environment, I have to reiterate on that, and I agree with him very much so because I'm one of the ones that help manage that.

Our management team expects that of us and we carry that all the way down through the workforce.

As Jerry said, the new proposed expansion is going to create hundreds of permanent jobs, as well as thousands of contractor jobs for the area. It's very good for the area, for

Page 27

this project to go forward.

Our core values are one of our big things. Core values -- we've used those to help build our culture. We don't really look at them as values. We look at them as helping us build our culture, the way we do our business.

Golden Pass genuinely cares about its employees. Back when "Ike" had come through, back in 2008, I wasn't an employee then, but just hearing stories from some of the other employees, the way that they were treated with Golden Pass, who weren't able to work for a while, Golden Pass really took care of them.

So, as an employee, it's really nice to know that your company that you're working for can do that for you.

They're active in -- I can list all the ones that everybody else is talking about here tonight. The list goes on and on, and it continues to grow.

We support the local United Way very well and we continue to look for opportunities, to continue to support.

One of the other things that we started

Page 28

PM 2-8 cont'd

fixing -- started doing is the blood drive. We're helping our blood banks. It's a new one that we've interacted into our programs.

Sabine Pass High School -- we did stuff here. I actually got to participate in a science judging deal. It was a pretty good experience for me. It brung me back to my school years.

Just as an employee, I'm very proud to be associated with Golden Pass, and I encourage the FERC to move forward with the granting of the environmental impact statement.

Thank you.

MR. HOWARD: J. Shane Howard.

PM 2-9

MR. SHANE HOWARD: I'm Shane Howard, S-H-A-N-E H-O-W-A-R-D. I'm here tonight on behalf of the Sabine Pass Port Authority. I'm sitting in the back.

The Sabine Pass Port Authority has been here, on the ground, very similar to what the school district has, through all the travails of hurricanes through the ups and downs of the local economy, et cetera.

One of the consistent corporate citizens who has been there to help out the port, who

Page 29

has helped out the school district, who has help out the community has been Golden Pass.

What they've done for the county, what they've done for the region, what they've done for the city of Port Arthur, what they've done for the school district, what they've done for the port is absolutely extraordinary.

At the risk of being redundant with some of these things, they take care of the workers. They take care of their municipal entities that they work with.

As it relates to the environmental impact study, No. 1, the draft was excellent, and it was great to see, because it bears out an actual fact, you know. To see the science behind what we all know on the ground to be true is very, very important.

When I first moved back to this area, as a native of Port Arthur, this was a beach for us, coming down the Sabine Pass and going down past Sea Rim, when we still had the beach road.

When I first moved back to Southeast Texas, Sea Rim was closed. I drove down there. I had no idea whether it was open. It

8 (Pages 26 to 29)

202-347-3700 Acc-Federal Reporters, Inc. 866-928-6509

PM2-9 The commentor's support for the Project is noted.

PUBLIC MEETINGS

PM2 – Sabine Pass High School, Sabine Pass, Texas (cont'd)

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 30

PM 2-9 cont'd

was bombed out.

Because of the efforts of people like Golden Pass and the leadership exercised on the ground, we not only have a great place for local residents as well, but you will always run into people at a corner gas station who were from out of the area, who would down to kayak, who would come down to spend time at a good, clean beach, who would want to go out on the nature trail there. Without the corporate partners like we have like Golden Pass, that would not take place.

They do more than check the box. They actually go above and beyond in every facet of their relationship with the community, not only take care of the communities that they're a part of, but also to take care of the environment.

So, when you're doing an industrial facility like that, to see somebody go well beyond what is required, well beyond what is good, just public relations, it's inspirational.

They're a great corporate partner. The Port Authority is excited to see this project

Page 31

move forward. We encourage you to expedite it as quickly as possible.

Thank you very much.

MR. HOWARD: Dohn Labiche.

PM 2-10

MR. LABICHE: Very good. For a guy from Tennessee and a cajun name, that's really good.

Dohn Labiche, D-O-H-N L-A-B-I-C-H-E.

I support the proposed Golden Pass LNG export project because I have firsthand knowledge of the economic benefits, environmental stewardship, community leadership and commitment to safety exhibited by their staff and their leadership based in Sabine Pass.

I'm an architect who has been working closely with Golden Pass LNG on a project to improve the recreational opportunities for the citizens of Jefferson County. The project is to master plan the Walter Umphrey State Park, Keith Lake Fish Pass, a recreational fishing area located adjacent to the LNG site.

Golden Pass LNG, through meetings with state wildlife agencies, county officials, conservation groups and end users, has

Page 32

PM 2-10 cont'd

demonstrated their continued concern for environmental stewardship in an effort to ensure that not only the developments on the site respect the fragile lake and marsh ecosystems, but will also provide experiences for the users that respect and embellish the coastal marsh experience.

Their community leadership has been exhibited in their concern that the master plan not only presented activities for fishermen, but also opportunities for ecotourism. The master plan provides fishing, birding, boating, picnicking and exercise activities for the community.

Their commitment to safety extends beyond the physical LNG facilities in their concern for vehicular access and egress to the fish pass site and user safety while on site. Much time was spent on addressing the needs and implementing solutions for user safety.

In closing, it is obvious from the activities already performed by the Golden Pass LNG that the economic benefits to our community through the creation of jobs, assistance to small area businesses and

Page 33

generation of tax dollars -- this project is truly a win-win for our community.

Thank you for the opportunity to publicly state my support for the Golden Pass LNG export project. I urge that the FERC to look favorably upon the project and issue the final EIS as scheduled.

Thank you.

PM 2-11

MR. HOWARD: Jim Rich.

MR. RICH: Good evening. I'm Jim Rich. You heard from the current president of Greater Beaumont Chamber of Commerce. I'm the former president, having retired last summer, after almost 15 years in that role. I'm also a former commissioner for the Sabine Neches Navigation District.

So, I'm sitting here and kind of blown away. When you retire, you kind of forget things quickly, and all these things we heard tonight are reminding me because I was an eyewitness to almost all of it.

This is a great corporate citizen and, obviously, a great steward of the environment, and so, I just want to offer my support on behalf of the retirees of our area.

9 (Pages 30 to 33)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM2-10 The commentor's support for the Project is noted.

PM2-11 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 34

Thanks.

MR. HOWARD: Delores Prince.

PM 2-12 MS. PRINCE: Thank you. Deloris Prince, D-E-L-O-R-I-S P-R-I-N-C-E. I am the mayor of the city of Port Arthur.

You know, I was just blown away when I learned of all of the benefits that are going to be coming from this project, not only here on a local level, but clearly across the country.

Several months ago, when I looked at the numbers -- $30 billion across the United States, $10 billion in this area, 45,000 jobs across the country, $4.6 billion in taxes that would effect the local, the state and the national government. That is amazing.

I was here in Sabine after "Ike." I was here after "Rita." But after "Ike," there were many, many meetings that were held in this room with Golden Pass personnel, and the objective was, how do we help Sabine rebuild this beautiful community and they did just that.

The community building that has been donated to the city of Port Arthur, the 1.5,

Page 35

was built with this community in mind, because Golden Pass is a stable force here in the Sabine Pass community.

Not only that, but when they came to work here to rebuild this community, they came not in their suit clothes. They became a part of the family members of -- and I've always said I love Sabine Pass because I love this family that they have. Everybody is a big family here. Well, Golden Pass became part of that family.

So, I am so much in support of this project, and I'm praying that you-all will speed up the process and approve the EIS.

Thank you-all so much.

MR. HOWARD: John Comeaux.

PM 2-13 MR. COMEAUX: You missed that one. John Comeaux, J-O-H-N C-O-M-E-A-U-X. It's pronounced the same as C-O-M-O.

I'm John Comeaux. I'm pleased to be here tonight. I'm president of the board of commissioners of the Port of Port Arthur.

On behalf of the Port of Port Arthur, I state that the Port of Port Arthur supports Golden Pass efforts in the final approval of

Page 36

PM 2-13 cont'd the EIS as well as the final permit itself.

Golden Pass has been an exemplary environmental steward. They've been a good neighbor to everyone and they've brought many, many jobs to the area.

Again, on behalf of the Port of Port Arthur, we fully support the moving forward on the EIS as well as the final permit.

Thank you.

MR. HOWARD: Larry Richard.

PM 2-14 MR. RICHARD: Larry Richard, L-A-R-R-Y R-I-C-H-A-R-D. I am the fire chief of the city of Port Arthur, and, yes, Sabine Pass is in Port Arthur.

I do want to say this: When Golden Pass -- we first heard that they were coming to this area, though we had a lot of experience in other industries, we didn't have any experience at all with LNG.

The first thing Golden Pass did was came into the department and brought Texas A&M and gave us classes, classroom instruction to our whole department.

Since then, twice a year, they sponsor -- sending about 15 firefighters out to Texas A&M

Page 37

again, do actual hands-on firefighting training, all at no cost.

They pay our overtime cost. They pay our backfill overtime cost. They pay our lodging. They pay our travel.

Golden Pass has been an excellent partner and I urge you guys to move forward with this study on time. Let's not be late. Let's get it done on time.

MR. HOWARD: Carl Griffith.

PM 2-15 MR. GRIFFITH: Thank you. Welcome to our community. I'm Carl Griffith, as county judge, a former county judge and both of my predecessors, Judge Walker and Judge Branick, all of us have supported this project from Day 1.

I worked very closely with the plant manager of Exxon Mobil when it began in the process of finding the lands here and going through this initial process with FERC.

I can tell you from the very first day this project started, they have been active in our community and not only just active in a way of creating jobs and providing tax base to our community, but also they've been good

10 (Pages 34 to 37)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

L-94

PM2-12 The commentor's support for the Project is noted.

PM2-13 The commentor's support for the Project is noted.

PM2-14 The commentor's support for the Project is noted.

PM2-15 The commentor's support for the Project is noted.

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 38

PM 2-15 cont'd

stewards of the environment.

They've been involved in nearly every environmental project in south Jefferson County and they've changed -- they've put money into our environment that we didn't have to put in as a local government.

The city of Port Arthur worked hand in hand with us to see that they would locate this community, because if you look at the state of Texas, you'll find that we have some of the highest unemployment in the state and have had for decades.

These jobs are important jobs, and at the same time, they do good things for our environment. I'd ask you, because of the stranded gases, as a pilot and I have clients all over the state of Texas, New Mexico, Oklahoma, Louisiana, and I fly quite often and I see the flaring across the Eagle Ford, the Permian Basin, all that flared gas is an opportunity for America to sell that outside and help our environment worldwide and the longer it takes to get this permit out, the longer it's going to take until we impact the environment in a positive way.

Page 39

So, I beg you guys to do all you can to get this permit processed and out so these folks can start sending that gas out the pipeline and doing good things for other people.

MR. HOWARD: Paul Beard.

PM 2-16

MR. BEARD: My name is Paul Beard, P-A-U-L B-E-A-R-D. I reside at 3220 Eugenia Lane in Groves, Texas. I'm the chairman of the board of the Sabine Neches Navigation District. I'm a business owner in the city of Port Arthur.

We have -- as a navigation district, we've worked with Golden Pass from the very get-go on their existing project, working with them to find a place to put their dredge material, working with them through the Corps of Engineers' process, and we've found them to be really great folks to work with. They've shown themselves to be very environmentally responsible.

And we're really excited about their present project and we do urge FERC to look favorably upon granting them the necessary permits as soon as possible.

Page 40

MR. HOWARD: That's all the speakers that we had signed in at this time. Is there anyone else that would like to speak?

PM 2-17

MR. SINEGAL: Mike Sinegal. Michael Shane Sinegal, M-I-C-H-A-E-L S-I-N-E-G-A-L.

I'm county commissioner of Precinct 3, which is the area you're in, Sabine Pass, Port Arthur. Sabine Pass is part of Port Arthur. I don't want the mayor to look cross-eyed at me but I also cover all the way to Chambers County.

I was in on the first project that Golden Pass had here and one of the things we haven't touched on is coastal erosion.

I think one of the things that Golden Pass has done as well as some of the other industry on Pleasure Island is stabilize our shoreline where we're having to stabilize it with our funds from our county, copper and different things. I think that's one issue. We're hoping that Sempra also will come and help it stabilize even further.

One thing I also brag about is Sabine Pass School District. We have hundreds of kids that travel that road every morning and

Page 41

every evening going back and forth.

We've had zero -- I think the superintendent is here, and we've had zero incidence of any issues with Golden Pass or any industry in this area that's caused any problems.

One of the things that I remember -- I was on the city council at the time -- is everyone on Pleasure Island came unglued and said they're going to take all the cold water and destroy the fish when they build the first segment.

I remember going to town hall meetings, and a lot of the homeowners on Pleasure Island was complaining about the process that the LNG shift would bring in and dredge -- I mean, just do devastating damage to our intercoastal waterway right outside where LNG.

We don't have any of them here tonight. That's a testament to how well that project went, and I'm sure with the leadership that Golden Pass have now, it will continue in that mold.

So, I'm in support of it as county commissioner of this precinct, and as Fred

11 (Pages 38 to 41)

202-347-3700 Ace-Federal Reporters, Inc. 866-928-6509

PM2-16 The commentor's support for the Project is noted.

PM2-17 The commentor's support for the Project is noted.

PUBLIC MEETINGS

PM2 – Sabine Pass High School, Sabine Pass, Texas (cont'd)

Page 42

PM 2-17 cont'd

1 said, Commissioner Alfred is here. He came
2 just to listen and judge is in Austin but I
3 think this court has been very favorable to
4 industry and we have a partnership that we
5 brag all over the nation.
6 So, I thank you and I ask that you grant
7 the permit.
8 MR. HOWARD: Thank you.
9 Are there any additional speakers?
10 Well, since I didn't see any additional
11 speakers, I will go ahead and close the formal
12 part of this meeting.
13 Anyone wishing to keep up with the
14 official activity associated with the Golden
15 Pass LNG export project can use the FERC
16 website, www.ferc.gov.
17 Within our website, there's an E-library
18 link where you can type in the docket numbers
19 for this project. Those are CP14-517 and
20 CP14-518.
21 You can use E-library to gain access to
22 the documents on the public record concerning
23 the project, including all the public filings
24 by Golden Pass, agencies and other landowners.
25 I, as well as representatives from Golden

Page 43

1 Pass, will stay in the room for a little while
2 after the meeting. So, you may stay put as
3 individually or ask questions.
4 If you would like immediate copies of the
5 transcription, please see the transcriber.
6 On behalf of the Federal Energy
7 Regulatory Commission, U.S. Army Corps of
8 Engineers, Environmental Protection Agency,
9 U.S. Coast Guard, U.S. Department of
10 Transportation and U.S. Department of Energy,
11 I want to thank you-all for coming here
12 tonight.
13 Let the record show that the Golden Pass
14 LNG export project comment meeting in Sabine
15 Pass, Texas concluded at 8:00 p.m.
16 Thank you.
17 (Whereupon the meeting was adjourned)
18
19
20
21
22
23
24
25

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 1

A

A&M 36:21,25
able 27:13
absolutely 29:7
access 22:4 32:17 42:21
accurate 7:18
acres 11:7 15:3
acronyms 8:1
Act 4:17
active 20:14 24:5 24:17 27:18 37:22 37:23
activities 24:7 32:10,14,22
activity 42:14
actual 29:15 37:1
add 21:20
addition 22:7
additional 24:19 42:9,10
address 4:9 6:4 12:4
addressed 5:11 22:8
addressing 32:19
adjacent 31:22
adjourned 43:17
agencies 4:5 31:24 42:24
agency 3:13 7:25 43:8
ago 17:25 34:11
agree 8:19 17:2,9 26:16
agreement 8:4
ahead 42:11
Alfred 12:9 42:1
allow 4:19
amazing 34:16
America 22:17 38:21
analysis 6:9,18
animal 11:8
announced 18:23
annual 24:21
anyone's 14:4
applications 4:16
appreciate 14:13 17:15
approach 20:22 21:14
approval 35:25
approve 35:14
approximately 4:24
appurtenant 4:22
April 1:15 3:25
architect 31:16
area 11:1 15:2 18:17 20:21,25 21:4,5,6,17 26:25 26:25 29:18 30:7 31:22 32:25 33:25 34:13 36:5,17 40:7 41:5
areas 22:2,4
arms 16:22
Army 3:12 43:7
Arthur 9:9,12 10:16,17,20 11:22 17:25 29:5,19 34:5,25 35:22,23 35:24 36:7,13,14 38:7 39:12 40:8,8
aside 11:7
asked 9:19
assistance 3:17 32:25
associated 24:25 28:10 42:14
assurance 23:16
attached 19:22
attract 10:22 11:21
audible 8:4
audience 5:17 8:3
Austin 12:7 42:2
Authority 28:17,19 30:25
authorization 8:24
authorize 6:21 20:6
automatically 6:12
Avenue 9:11
awards 22:12
aware 16:6

B

B-E-A-R-D 39:8
B-I-L-L 10:15
back 5:13 23:16 27:9,10 28:7,18 29:18,23 41:1
backfill 37:4
balance 20:23
balanced 20:24 21:14
ball 16:13,14
banks 28:2
base 24:16 37:24
based 6:9 31:14
Basin 38:20
beach 24:21 29:19 29:21 30:9
Beard 39:6,7,7
bears 29:14
Beaumont 20:13 33:12
beautiful 34:22
beg 39:1
began 3:25 37:18
behalf 3:4 12:6 28:17 33:25 35:23 36:6 43:6
believe 19:20
belong 11:13
Belynda 2:21
beneficial 12:25
benefits 26:3 31:11 32:23 34:7
best 18:10 19:23
better 6:4
beyond 30:14,21,21 32:15
bidding 19:3
big 13:5 27:2 35:9
Bill 10:13,14 21:19
billion 34:12,13,14
billions 18:15
birders 21:3
birding 13:4 32:13
bit 25:13
blood 28:1,2
blown 33:17 34:6
board 35:21 39:10
boat 15:17
boating 32:13
body 24:8
bombed 30:1
box 30:13
brag 40:23 42:5
Branick 12:7 37:14
bring 23:16 41:16
bringing 9:25
brought 14:23 15:2 36:4,21
brung 28:7
build 12:19 13:15 20:21 27:4,6 41:11
building 34:24
buildings 18:5
built 15:25 35:1
business 18:3,4,24 19:14,25 22:7,8 25:23 26:7 27:7 39:11
businesses 18:18,23 18:25 19:5,13 32:25

C

C 2:1 3:1
C-O-M-E-A-U-X 35:18
C-O-M-O 35:19
C-R-A-V-E-N-S 17:20
cajun 31:6
Calcasieu 5:5 16:19
call 5:14 7:20
called 9:9
Cardno 2:7 3:21,22
care 9:24 11:18,18 26:4 27:14 29:9 29:10 30:16,17
career 24:12
cares 27:8
Carl 37:10,12
carry 26:20
caused 41:5
CCR-RPR 2:21
CD 4:2 17:3,5
center 9:8,11,24 13:15 15:16
CEO 10:17 20:13
certified 18:2
cetera 28:23
chairman 39:9
chamber 10:18,21 20:13 33:12
Chambers 40:10
Champagne 2:21
changed 10:5 38:4
charge 13:13
check 30:13
chief 36:12
citizen 33:22
citizens 10:2 13:14 28:24 31:19
city 11:22 29:5 34:5 34:25 36:13 38:7 39:11 41:8
classes 36:22
classroom 36:22
clay 15:21
clean 30:9
cleanup 24:21
clear 13:8
clearly 34:9
clients 38:16
close 42:11
closed 29:24
closely 31:17 37:17
closing 19:19 32:21
clothes 35:6
Coast 3:13 43:9
coastal 32:7 40:14
cold 41:10
collectively 4:14
colleges 24:5,10
come 7:21 27:9 30:8 40:21
Comeaux 35:16,17 35:18,20
coming 29:20 34:8 36:16 43:11
comment 1:9 3:8,25 5:7,8,10,16 43:14
comments 5:9,19,20 5:21 6:1,3,5,7,10 6:25 7:1,4,8,15 25:17
Commerce 10:18 20:14 33:12
commission 1:2 2:4 3:5 6:16,17 7:5 43:7
commissioner 12:9 12:10 33:15 40:6 41:25 42:1
commissioners 12:10 35:22
commitment 31:13 32:15
communities 21:23 22:1,3 24:3 30:16
community 11:15 11:18 13:15,17 14:16 15:9,15,16 16:5 17:11 21:10 22:18 23:23 24:1 24:17,23 25:20 29:2 30:15 31:12 32:8,14,24 33:2 34:22,24 35:1,3,5 37:12,23,25 38:9
companies 26:8
company 9:2,20 11:5 19:20 20:1 21:13 24:25 27:16
company's 18:9
compared 26:5
compete 18:11
competitive 26:5
complaining 41:15
completed 19:10
compliance 8:22
compressor 4:25
comprised 21:25
conceivable 13:20
conceive 14:1
concern 32:1,9,16

concerning 42:22
concerns 6:5
conclude 17:8
concluded 43:15
conditions 8:23
confident 26:14
conservation 12:24 31:25
consider 6:17 23:11
consistent 28:24
construct 20:6
construction 4:20 4:23 12:17
contained 6:1
continue 13:22 27:23,24 41:22
continued 3:17 32:1
continues 27:21
contractor 3:22 23:17 26:24
contractors 17:24 19:12
contributed 11:9 13:20 15:3
controls 23:23
cooperated 3:15
copies 4:3 43:4
copper 40:19
copy 4:7,11 6:11,12 8:16
core 23:11 27:2,3
corner 30:6
corners 10:10
corporate 15:23 22:17 28:24 30:10 30:24 33:22
Corps 3:12 39:17 43:7
correct 14:5
cost 37:2,3,4
cost-effective 18:11
council 41:8
counties 5:5 21:25
country 9:4 34:10 34:14
county 16:17 17:14 18:25 29:3 31:19 31:24 37:12,13 38:4 40:6,11,19 41:24
couple 6:2,8
course 14:15
court 12:10 42:3
cover 40:10
cows 9:2
CP14-517 1:10 42:19
CP14-518 1:10 42:20
crabbing 13:3
Cravens 17:18,19 17:19
create 13:7 23:14 26:23
created 13:7
creating 37:24
creation 32:24
creative 18:21
cross-eyed 40:9
cubic 11:9 14:25
culture 27:4,6
current 33:11
currently 5:7
cut 10:9

D

D 3:1
D-E-L-O-R-I-S 34:4
D-O-H-N 31:8
D-W-A-I-N-E 25:12
Dade 14:3
Dale 14:7
damage 41:17
day 37:15,21
days 17:5
deal 28:6
decades 38:12
decide 5:22
decided 18:20
decision-making 6:23
Deer 18:1
define 7:25
definitely 25:11
delay 13:24
delivered 18:19
delivering 12:17
Delores 34:2
Deloris 34:3
demonstrated 11:6 32:1
dental 26:4
deny 6:21
department 3:14,15 36:21,23 43:9,10
destroy 41:11
details 20:19
determination 18:13
determine 6:20
detrimental 13:25 21:8
devastated 11:12
devastating 15:9,11 41:17
development 10:19 15:24 16:6 20:15 22:11,13,15
developments 32:3
different 40:20
diligent 26:14
directional 5:1
directly 7:9,19 16:11
disagreement 8:4
discussion 21:21
dislike 6:6
distribution 4:21
district 13:19 16:10 28:21 29:1,6 33:16 39:11,13 40:24
docket 42:18
document 3:16 6:23
documents 42:22
Dohn 31:4,8
doing 28:1 30:19 39:4
dollars 10:25 13:16 15:16 18:15 33:1
donated 34:25
double 9:21
downs 28:22
draft 3:10,23 4:3,8 5:8,19,24 6:2,11 7:6 22:19 25:5 29:13
draws 21:22
dredge 13:1 39:16 41:16
drive 1:13 28:1
drove 29:24
Ducks 12:22 15:19
duty 9:4
Dwaine 25:8,10

E

E 2:1,1 3:1,1
E-L-I-Z-A-B-E-T... 17:20
E-library 42:17,21
E-mail 17:6
E.R 25:12
Eagle 38:19
earlier 26:13
economic 10:19 20:15 22:11,13,15 31:11 32:23
economics 10:5
economy 13:5 28:23
ecosystem 11:7 13:2
ecosystems 32:5
ecotourism 32:12
education 11:13,14
effect 34:15
effort 32:2
efforts 30:2 35:25
egress 32:17
EIS 3:11,18,23 4:3 4:8,11 5:8,11,19 5:24 6:2,11,15,21 7:6 22:20 25:5,5 33:7 35:14 36:1,8
electronic 6:1
electronically 5:23
Elizabeth 17:18,19
embellish 32:6
employ 13:17
employee 23:1,8 24:16,24 25:14,19 25:21 27:10,15 28:9
employees 23:13 27:9,12
encourage 20:3 24:22 28:10 31:1
ends 5:9
Energy 1:2 2:4 3:5 3:15 43:6,10
engineering 6:19 8:20
Engineers 3:12 43:8
Engineers' 39:18
enjoy 21:4
ensure 8:22 32:3
entities 29:11
entrance 3:20 5:13
environment 3:10 11:19 14:20 21:17 26:15 30:18 33:23 38:1,5,15,22,25
environmental 3:3 3:13,22 4:4 5:20 6:9,18 8:20 12:21 17:9 20:5 21:16 21:17 23:22 28:12 29:12 31:12 32:2 36:3 38:3 43:8
environmentally 9:3 11:5 21:8 39:20
EPC's 19:3
equal 5:21 26:10
equally 19:21
erections 18:6
Eric 2:3 3:2 8:11
erosion 40:14
especially 8:19
Estate 8:12
et 28:23
Eugenia 39:8
evaluated 19:13
evening 3:2 24:2 33:10 41:1
events 24:4,22
everybody 25:17 27:19 35:9
examples 24:18
excellence 23:21,23
excellent 14:6,8 29:13 37:6
excited 30:25 39:22
executive 8:17,18
exemplary 36:2
exercise 32:13
exercised 30:3
exhibited 31:13 32:9
existing 4:18 23:17 39:15
expand 4:18
expansion 23:14 26:22
expects 26:19
expedite 31:1
expediting 11:20
experience 28:7 32:7 36:18,19
experiences 32:5
export 1:9 3:9 4:19 5:3 17:23 19:16 20:17 23:8 25:3 31:10 33:5 42:15 43:14
extends 32:15
extraordinary 29:7
Exxon 37:18
eyewitness 33:21

F

F-O-S-T-E-R 22:25
F-R-E-D 12:2
facet 30:14
facilities 4:22 16:1 32:16
facility 9:10 10:1

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

16:12 17:8 30:20
facing 7:23
fact 21:21 22:11 23:3 29:15
facts 14:22
Failin 14:7
fair 18:22
fairly 19:21
familiar 8:25
families 23:19 25:25
family 23:9 25:25 26:2,3,4 35:7,8,9 35:11
far 16:5
fauna 21:5
favorable 42:3
favorably 20:4 22:19 25:4 33:6 39:24
favorites 24:20
fears 23:4
Federal 1:2 2:4 3:5 43:6
feel 21:7 22:15
feeling 19:23
fees 19:7
feet 15:13
female 19:14
FERC 3:3,6 4:15 5:18,23 6:17 8:24 13:24 14:14 20:3 25:4 28:11 33:5 37:20 39:23 42:15
FERC's 8:20
field 18:7 19:13 22:13
file 5:25
filed 4:16
filings 42:23
final 4:11 5:11 6:13 6:15 20:4 22:19 25:5 33:6 35:25 36:1,8
find 20:25 38:10 39:16
finding 21:10 24:11 37:19
fine 14:11
finish 9:10
finished 6:15
fire 36:12
firefighters 36:25
firefighting 37:1
first 6:2 7:1 8:5,8 9:6 29:18,23 36:16,20 37:21 40:12 41:11
firsthand 31:10
fish 12:24 24:21 31:21 32:17 41:11
fishermen 21:3 32:11
fishing 13:3 31:21 32:12
fixing 28:1
flared 38:20
flaring 38:19
flora 21:5
fly 38:18
folks 11:19 17:12 39:3,19
following 7:5
force 35:2
Ford 38:19
forest 15:3,4
forget 33:18
form 7:7,10
formal 42:11
former 33:13,15 37:13
forth 41:1
forward 6:16 27:1 28:11 31:1 36:7 37:7
Foster 22:23,24,24
found 18:21 39:18
foundation 11:13 24:6
Fr 9:7,16
fragile 32:4
Fred 11:25 12:2 41:25
friend 9:1
friendly 9:3
front 7:23
full 17:14
fully 36:7
functions 24:1
fund 15:21
funds 40:19
further 40:22
futures 24:12

G

G 3:1
gain 42:21
gas 3:9 4:17 5:2 10:3 30:6 38:20 39:8
gases 38:16
General 6:5
generating 10:23
generation 33:1
genuinely 27:8
get-go 39:15
give 5:21 18:22 23:18
given 19:19
gives 7:10
giving 14:14
go 10:1,8 14:18 17:4 25:22,24,24 27:1 30:9,14,20 42:11
goes 15:20 16:18 19:3 27:20
going 7:21 9:9,21 9:21 10:8 12:11 17:3 20:19 21:7 26:23 29:20 34:7 37:19 38:24 41:1 41:10,13
Golden 1:9 3:8 4:12 4:13,14,16,18 5:2 8:25 9:7 10:23 12:14 14:15,21 15:13,22 16:1,6 16:25 17:23 18:20 18:23 19:6,17,19 20:6,17 23:1,7,9 23:25 24:16,25 25:3,4,19,21 26:2 26:9 27:8,13,14 28:10 29:2 30:3 30:11 31:9,17,23 32:22 33:4 34:20 35:2,10,25 36:2 36:15,20 37:6 39:14 40:12,15 41:4,22 42:14,24 42:25 43:13
golf 16:12,13
Golfhill 10:15
good 3:2 9:1 10:2,6 13:11 16:13 20:24 26:3,25 28:6 30:9 30:22 31:5,7 33:10 36:3 37:25 38:14 39:4
government 34:16 38:6
governmental 4:5
GP 20:2
grant 42:6
granting 19:24 28:11 39:24
great 13:14 14:12 14:16 29:14 30:4 30:24 33:22,23 39:19
Greater 10:17 20:13 33:12
greatest 23:4
Griffith 37:10,11 37:12
ground 15:14 28:20 29:16 30:4
group 7:25
groups 31:25
Groves 18:1 39:9
grow 27:21
Guard 3:14 43:9
GULFWAY 1:13
guy 31:5
guys 37:7 39:1

H

H-A-Y-E-S 8:15
H-O-W-A-R-D 28:16
half 13:16 15:15
hall 41:13
hand 7:3,8 38:7,8
handled 13:12
hands-on 37:1
hard 18:12
Hardin 21:23
Hayes 8:9,10,11,11 8:14,14 10:12 26:13
Health 26:4
hear 6:25 8:5,12
heard 9:7 20:20 24:1,18 33:11,19 36:16
hearing 25:16 27:11
held 34:19
help 7:17 26:18 27:4 28:25 29:2 34:21 38:22 40:22
helped 3:23 12:22 13:16 29:1
helpful 6:6
helping 13:15 27:5 28:2
high 1:12 11:1 24:8 24:9,10 28:4
highest 38:11
hikers 21:4
hike 10:10
historically 18:3
hit 16:12,13,14
hits 16:18
homeowners 41:14
honest 17:3
hope 8:12
hoping 40:21
Houston 9:11
Howard 2:3 3:2,3 8:13 10:12 11:25 12:5 14:3,10 17:17 20:9 22:22 25:8 28:14,14,15 28:15 31:4 33:9 34:2 35:16 36:10 37:10 39:6 40:1 42:8
huge 16:1
hundred 23:15
hundreds 23:15 26:23 40:24
hunters 21:2
hurricane 11:11 15:6,8
hurricanes 28:22

I

idea 29:25
identify 7:24
Ike 11:11 15:6 27:9 34:17,18
immediate 43:4
impact 3:10 17:2 20:5 21:16 28:12 29:12 38:24
impacts 17:9
implementing 32:20
import 4:19 10:3
importance 11:14 11:16
important 6:24 9:23 11:1 22:5 23:5 26:1 29:17 38:13
improve 13:1 31:18
improving 21:16
incidence 41:4
included 19:2
includes 4:23
including 18:5 42:23
indicate 23:5
individual 16:20
individually 43:3
individuals 4:3 5:14
industrial 18:4,6,16 18:17 19:12 30:19

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 4

industries 26:6 36:18
industry 10:22 18:9 19:23 23:11,20 24:15 40:17 41:5 42:4
initial 37:20
initiative 18:24 19:6 20:15 22:8 22:14
inspection 8:21
inspirational 30:23
Institute 24:6
instruction 36:22
instructions 5:25 7:10
insulation 18:7
integrity 12:15
interacted 28:3
intercoastal 41:17
interconnections 5:1
interest 13:9 16:15
interested 13:18
interests 13:4
intrusion 15:10
invested 18:16
investment 14:18
involved 15:18 38:2
involvement 23:24
Island 40:17 41:9 41:14
issue 20:4 22:19 25:5 33:6 40:20
issues 6:19 41:4

J

J 28:14
J-A-C-K-S-O-N 12:3
J-E-F-F 8:14
J-E-R-R-Y 22:25
J-O-H-N 35:18
J.D 11:10 15:1
Jackson 12:1,2,2,6 16:24
Jasper 21:24
Jeff 8:9,11,14
Jefferson 5:5 17:13 18:25 21:23 31:19 38:3
Jerry 22:22,24 25:15 26:22
Jim 33:9,10
job 6:8 14:6,8 20:24
jobs 10:23 11:2,21 13:6 21:18,21 22:5 23:15 26:23 26:24 32:24 34:13 36:5 37:24 38:13 38:13
John 35:16,17,20
join 9:14
judge 12:6 37:13,13 37:14,14 42:2
judging 28:6

K

kayak 30:8
keep 42:13
Keith 31:21
Kicklighter 2:6 3:19
kid 24:21
kids 40:25
Kim 2:6 3:21 7:9
kind 25:15 33:17,18
know 10:4 12:9 13:22 14:24 15:7 17:1,11 27:16 29:15,16 34:6
knowledge 31:11
known 3:6

L

L-A-B-I-C-H-E 31:8
L-A-R-R-Y 36:11
L-I-N-D-S-E-Y 20:12
Labiche 31:4,5,8
labor 21:22
lake 31:21 32:4
Lamar 24:5
land 13:12
landowners 42:24
lands 15:4 37:19
Lane 39:9
Larry 36:10,11
late 37:8
launch 15:18
leader 24:18
leadership 30:3 31:13,14 32:8 41:21
learned 12:13 34:7
left 7:22
lengthy 17:5
Let's 37:8,8
level 19:12 34:9
liberty 12:12
libraries 4:5
life 20:24 23:4 24:11
Lindsey 20:10,11 20:12
link 42:18
liquefaction 4:21
Liquefied 3:9
list 4:4,9 6:14 7:2 15:20 19:1,11 27:18,20
listen 42:2
LIT 15:21,23 16:2,4
little 25:13 26:7 43:1
live 10:15 22:3,25
LLC 4:13,13
LNG 1:9 3:9 4:18 4:19,21 5:2 14:12 14:15 15:18 16:12 17:23 20:2,17 23:7 25:1 31:9,17 31:22,23 32:16,23 33:4 36:19 41:15 41:18 42:15 43:14
local 4:5 13:9 18:18 18:22,24 19:5 22:7 23:25 24:4 24:10 27:22 28:23 30:5 34:9,15 38:6
locally 13:14
locate 38:8
located 5:4 31:22
lodging 37:4
longer 38:23,24
look 22:18 25:4 27:4,5,23 33:5 38:9 39:23 40:9
looked 34:11
lot 18:12 20:19 21:2 21:2,3,4 36:17 41:14
Louisiana 5:6 21:24 38:18
love 35:8,8
lunch 9:13,19

M

M-C-C-O-Y 10:15
M-I-C-H-A-E-L 40:5
mail 5:22 7:10
mailed 4:2 6:15
mailing 4:4,8 6:14
maintenance 18:7
making 21:14
male-dominated 19:23
male-driven 18:9
manage 26:18
management 15:1 26:19
manager 3:4 37:18
March 4:2
markets 6:20
marsh 32:4,7
marshes 13:2
master 31:20 32:9 32:12
material 11:10 13:1 14:25 39:17
matter 17:13
mayor 34:4 40:9
McCoy 10:13,14,14 12:19
McFaddin 12:21
mean 41:16
means 14:19 17:5 18:9 23:18
measures 8:23
meeting 1:9 3:8 4:10 5:18 6:25 7:12,18 42:12 43:2,14,17
meetings 12:8 31:23 34:19 41:13
member 20:14
members 24:5 35:7
men 15:24 24:9
mention 24:19
mentioned 16:8
merits 19:14
met 17:12
metropolitan 22:4
Mexico 38:17
Michael 40:4
microphone 7:19 7:21
Mid-America 17:24 18:2,13 19:9
Mike 40:4
miles 4:24
million 11:9 13:16 14:25 15:16
millions 10:25
mind 35:1
mine 9:1 18:19
minimize 21:15
missed 35:17
mitigation 8:23
mitigation-monit... 8:21
Mobil 37:18
modify 4:18
mold 41:23
money 9:15,17 25:23,24 38:5
months 6:8 34:11
morning 40:25
move 28:11 31:1 37:7
moved 29:18,23
moving 36:7
municipal 29:10
Murphree 11:10 15:1

N

N 2:1 3:1
name 7:20,24 8:11 8:13 10:14 12:18 14:4 22:24 25:11 31:6 39:7
narrow 20:1
nation 10:24 42:5
national 34:16
native 29:19
natural 3:9 4:17 5:2 10:3
nature 9:4 30:10
navigation 33:16 39:10,13
nearly 38:2
necessary 39:24
necessity 13:10
Neches 33:15 39:10
need 6:13 11:2,2,19 12:4 18:10
needs 20:23 32:19
neighbor 36:4
neighborhood 16:16
never 18:19 19:8
new 4:25 9:10 13:15 15:16,17 17:8 18:16 23:14 26:22 28:2 38:17
newspapers 4:6
Newton 21:24
nice 27:15
night 14:12
non-environmental 6:19
NOS 1:10
noticed 7:12
number 12:20,24 21:21
numbers 34:12 42:18

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

O

O 3:1
objective 34:21
obtain 5:19
obvious 32:21
obviously 33:23
October 18:23
offer 33:24
offers 18:4
offices 17:25
official 42:14
officials 31:24
okay 14:11
Oklahoma 38:18
Once 6:15
ones 26:11,17 27:19
open 16:22 29:25
operate 20:7 24:3
operation 4:20
operational 23:22
opportunities 24:13 27:23 31:18 32:11
opportunity 14:14 17:15,22 19:18,18 22:2 25:2 33:3 38:21
opposes 16:20
Orange 5:4 16:17 17:13 21:23 22:25
order 6:20 18:11
organization 10:20
original 15:22 20:14
Oubre 9:8,16
outdoors 21:1
outlined 7:6 21:19
outreach 24:23
outside 38:21 41:18
outstanding 11:17
overboard 12:15
overperform 13:23 16:23
overperformed 17:1
overtime 37:3,4
owner 16:11 19:14 22:9 39:11

P

P 2:1,1 3:1
P-A-U-L 39:8
P-R-I-N-C-E 34:4
p.m 1:15 3:25 43:15
package 19:2
Page 8:18
pages 6:2
paid 19:6
Parish 5:6 16:19
Park 11:11 18:1 31:20
Parks 12:23 15:19
part 6:24 13:5 30:17 35:6,10 40:8 42:12
participant 24:17
participate 24:4 28:5
participates 23:25
participation 24:20 24:22
partner 30:24 37:6
partnered 12:20
partners 10:22 14:16 30:11
partnership 42:4
parts 17:7
pass 1:9,11,12,13 3:9,24 4:12,13,14 4:16,18 5:2 9:1,7 10:23 12:14 14:15 15:11,13,22 16:1 16:6,25 17:23 18:20,23 19:6,17 19:19 20:6,17 23:1,7,9,25 24:8 24:16,25 25:3,5 25:19,21 26:2 27:8,13,14 28:4 28:10,17,19 29:2 29:20 30:3,11 31:9,15,17,21,23 32:18,23 33:4 34:20 35:2,3,8,10 35:25 36:2,13,16 36:20 37:6 39:14 40:7,8,13,16,24 41:4,22 42:15,24 43:1,13,15
Pass' 14:21 26:9
paths 24:11
Paul 39:6,7
pay 37:3,3,4,5
peak 10:24
people 5:15 9:25 10:7 12:15 13:17 20:25 22:3 30:2,6 39:5
percent 17:10
performed 32:22
period 5:8,8,18
permanent 23:15 26:23
Permian 38:20
permit 11:21 13:25 36:1,8 38:23 39:2 42:7
permits 39:25
person 8:8 16:21
personnel 34:20
perspective 25:14
Phelan 14:3,6,11 21:9
phones 8:7
physical 32:16
picnicking 32:13
piece 16:14 19:8
pilot 38:16
pipeline 4:13,25 16:18 39:4
place 30:4,12 39:16
placed 19:1,10
places 23:10,20 24:14
plan 31:20 32:10,12
plant 37:17
playing 19:12
please 4:9 7:18 8:6 14:5 43:5
pleased 35:20
Pleasure 40:17 41:9 41:14
podium 7:22
point 8:20
pool 21:22
population 23:17
port 9:8,11 10:16 10:17,20 11:22 17:25 28:17,19,25 29:5,7,19 30:25 34:5,25 35:22,22 35:23,23,24,24 36:6,6,13,14 38:7 39:12 40:7,8
positive 38:25
possible 31:2 39:25
praying 35:13
pre-engineered 18:5
pre-screened 19:1
pre-screening 19:10
precinct 40:6 41:25
predecessors 37:14
prefer 7:3
preparation 3:16 9:25
present 39:23
presented 32:10
preserve 11:8
president 10:17 20:12 33:11,13 35:21
pretty 28:6
Prince 34:2,3,3
priority 19:1,11
probably 26:10
problems 41:6
procedures 7:5
process 3:18 6:22 35:14 37:19,20 39:18 41:15
processed 39:2
produce 7:17
product 9:25
Products 4:13
professional 22:16
program 8:21
programs 24:23 28:3
project 1:9,10 3:3,4 3:10 4:12,15,23 5:4 6:6,21 8:22 13:8 16:20 17:23 18:18 19:4,16 20:4,7,16,17 21:7 21:11,12 22:6,10 23:8 24:12 25:3 27:1 30:25 31:10 31:17,19 33:1,5,6 34:8 35:13 37:15 37:22 38:3 39:15 39:23 40:12 41:20 42:15,19,23 43:14
projects 12:21 18:16
promised 12:16 18:18
pronounce 14:4
pronounced 35:19
property 10:25 16:11,14
proponent's 17:23
proposed 4:12,15 19:16 23:7,14 26:22 31:9
protection 3:13 15:5 43:8
proud 13:21 19:9 22:17 24:24 26:12 28:9
prouder 25:18
provide 4:9 5:1 7:8 23:18 24:13 26:3 32:5
provided 5:16
provides 23:9 32:12
providing 17:21 21:18 37:24
psychological 20:22
public 7:16 23:3 30:22 42:22,23
publicly 33:3
purpose 5:18
put 7:16 38:4,6 39:16 43:2

Q

quality 20:24
questions 7:15 43:3
quickly 31:2 33:19
quite 38:18
quo 18:20

R

R 2:1 3:1
R-E-G-I-N-A 20:11
R-I-C-H-A-R-D 36:12
range 18:4 19:7 21:22
rate 11:2
rates 6:20
read 17:6,7
Real 8:11
reality 18:8
really 14:19 20:25 21:14 25:17 27:4 27:14,15 31:6 39:19,22
reason 19:20 20:3
rebuild 13:17 34:21 35:5
receive 4:7,11 6:3 6:10,12
received 5:10 6:11
recognize 11:14,16
recognizes 19:17
recommended 22:12
record 3:24 7:16,18 7:24 11:17 14:21 42:22 43:13
recorded 7:13
recreational 13:4 31:18,21
redundant 29:8
referred 4:14
reflam 8:2
refreshing 20:1
Refuge 12:22

In The Matter of: Golden Pass LNG Export Project - April 20, 2016

Page 6

regarding 23:12
Regina 20:9,11
region 14:19 29:4
Regulatory 1:2 2:4 3:5 43:7
reiterate 26:16
relates 29:12
relations 30:22
relationship 30:15
remember 41:7,13
reminding 33:20
renew 11:10
repeat 20:19
replicated 22:16
REPORTED 2:21
represent 16:17
representative 16:9 21:9
representatives 42:25
representing 7:25
require 4:20
required 30:21
reside 39:8
residents 30:5
respect 8:3 32:4,6
responsible 11:5 39:21
restore 15:1
result 17:8 22:5
retire 33:18
retired 33:13
retirees 33:25
review 3:18
revise 5:24 6:9
Rich 33:9,10,10
Richard 36:10,11 36:11
right 7:22 10:4 15:10 16:10 22:10 22:10 24:11 41:18
Rim 29:21,24
risk 29:8
Rita 34:18
road 29:22 40:25
role 33:14
room 5:13 34:20 43:1
run 9:2 16:19 19:25 30:6
runs 9:8
rural 22:1

S

S 2:1 3:1
S-H-A-N-E 28:16
S-I-N-E-G-A-L 40:5
S-T-A-U-D-E-N-... 25:12
Sabine 1:11,12,13 3:24 15:11 24:8 28:4,17,19 29:20 31:15 33:15 34:17 34:21 35:3,8 36:13 39:10 40:7 40:8,23 43:14
safest 23:10,20 24:14
safety 11:16,17 12:17 23:11,12,22 26:9 31:13 32:15 32:18,20
saltwater 15:10
scaffolding 18:6
schedule 20:5
scheduled 22:20 25:6 33:7
school 1:12 13:19 24:8,9,23 28:4,8 28:21 29:1,6 40:24
schools 24:10
science 28:6 29:15
Sea 29:21,24
Seacrest 3:21
seaman 9:8,24
SECHRIST 2:6
second 26:2
Sections 4:17
see 13:8,24 20:1 29:14,15 30:20,25 38:8,19 42:10 43:5
segment 41:12
sell 38:21
Sempra 40:21
send 7:4
sending 36:25 39:3
series 12:7
seriously 5:20 9:5
service 7:13
services 18:5,10
setting 11:6
shake 18:22
Shane 28:14,15,15 40:5
sheet 5:12 8:9
shift 41:16
shoot 15:21
shoreline 40:18
show 3:24 8:4 43:13
shown 39:20
shrimping 13:3
sign 6:13 18:24
sign-in 4:10 7:7
sign-up 5:12 8:8
signed 5:15 7:1 12:13 19:5 40:2
significant 17:9
silence 8:6
similar 28:20
Sinclair 9:7
Sinegal 12:11 40:4 40:4,5
single 16:21
site 8:25 10:9 20:6 31:22 32:4,18,18
sitting 28:18 33:17
six 23:2
size 20:2
small 22:3 32:25
solution 18:21
solutions 32:20
somebody 30:20
soon 39:25
sort 21:15
sought 24:16
south 1:13 38:3
Southeast 14:17,21 15:5,12,25 16:9 29:23
Southwest 21:24
speak 5:14,17,22 7:18 11:20 12:8 12:12 17:12,15,22 21:6 25:13 40:3
speaker 5:12 7:2 8:3,5 10:13 11:25 17:17 20:9 22:22 23:3 25:8
speakers 40:1 42:9 42:11
specific 5:25 6:3,7
speed 35:14
spell 7:24 8:13 25:11
spend 30:8
spent 15:15 32:19
sponsor 36:24
sponsors 15:23
stability 23:16
stabilize 40:17,18 40:22
stable 35:2
staff 31:14
stand 15:10
start 20:18 39:3
started 9:1 17:24 27:25 28:1 37:22
state 7:23 16:4,8 25:2 31:20,24 33:4 34:15 35:24 38:10,11,17
statement 3:10 20:5 28:12
statements 17:2
States 1:1 34:13
station 30:6
stations 4:25
status 18:20
Staudenmier 25:9 25:10,10
stay 43:1,2
steel 18:6
steward 26:15 33:23 36:3
stewards 13:11 38:1
stewardship 31:12 32:2
stitched 20:22
stories 27:11
straight 16:14 19:25
stranded 38:16
strategic 13:10
strings 19:22
strive 23:21
strongly 22:15
student 24:7
study 29:13 37:8
stuff 28:4
submit 5:22
suburban 22:1
successfully 19:9
suit 35:6
summary 8:17,18
summer 33:13
superintendent 41:3
support 11:20 17:14,22 19:16 20:16 23:7 24:4,7 25:3 27:22,24 31:9 33:4,24 35:12 36:7 41:24
supported 37:15
supporter 16:2
supportive 15:14 21:11
supports 35:24
sure 21:15 41:21
surpasses 26:10
System 11:11

T

table 4:10 7:7
take 5:20 7:1 9:3 12:11 29:9,10 30:12,16,17 38:24 41:10
taken 18:12 21:14
takes 9:24 38:23
talk 14:12,20 23:12
talking 27:19
tax 33:1 37:24
taxes 10:25 11:3,22 34:14
team 26:19
Technology 24:6
tell 9:6 16:3 37:21
tender 19:2
Tennessee 14:10 15:7 31:6
Tens 18:15
terminal 4:19 5:3
testament 41:20
Texas 1:11,13 5:5 10:16 11:23 12:23 14:17,21 15:5,12 15:25 16:9 18:1 23:1 29:24 36:21 36:25 38:10,17 39:9 43:15
thank 3:17 8:10 10:11,12 11:24 14:2,13,15 17:16 17:21 20:8 22:21 25:2,7 28:13 31:3 33:3,8 34:3 35:15 36:9 37:11 42:6,8 43:11,16
Thanks 34:1
thing 10:4 17:4,6 20:18 26:1 36:20 40:23
things 25:22 27:3 27:25 29:9 33:19 33:19 38:14 39:4 40:13,15,20 41:7
think 9:2 13:21 16:23 17:11 40:15 40:20 41:2 42:3
thought 10:3 25:20
thousands 13:6 26:24
three 4:25
time 5:14 9:6,23 30:8 32:19 37:8,9

APPLICANT

AP1 – Golden Pass Products

Golden Pass Products

May 16, 2016

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

Re: OEP/DG2E/Gas 2
Golden Pass Products LLC and Golden Pass Pipeline LLC
Docket Nos. CP14-517-000 and CP14-518-000
Golden Pass LNG Export Project
Comments on the Draft Environmental Impact Statement

Dear Ms. Bose:

On March 25, 2016, the Federal Energy Regulatory Commission ("Commission") issued the Draft Environmental Impact Statement ("DEIS") for the Golden Pass Products LNG Export Project applications pending in the referenced proceedings.

Enclosed for filing are the Comments of Golden Pass Products LLC ("GPP") and Golden Pass Pipeline LLC ("GPPL") (collectively referred to as "Golden Pass") on the DEIS. Golden Pass' comments are detailed in Attachment No. 1 in a table format that (1) refers to the applicable section of the DEIS; (2) provides an excerpt of the relevant text; (3) provides Golden Pass' comment; and (4) suggests language proposed for incorporation into the DEIS to resolve the comment.

Attachment No. 2 provides suggested DEIS table revisions which relate to the export project's footprint. Attachment No. 3 provides suggested revisions to acreages listed in the DEIS text based on the export project's footprint. Attachment No. 4 provides an update to Table 1.5-1 of the DEIS which is the *Major Permits, Approvals, and Consultations for the Golden Pass LNG Export Project*. Attachment No. 5 provides a copy of Golden Pass' January 14, 2016 submission (Accession No. 20160114-5171) concerning the status of property extension acquisition and control.

Golden Pass has previously filed responses to the 14 recommended mitigation measures in the DEIS that required updated information and/or documents prior to the end of the DEIS comment period.

Three Allen Center • 333 Clay Street • Suite 802 • Houston, TX 77002 • Tel: 713-860-6361 • Fax: 713-860-6344

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass appreciates the opportunity to comment on the DEIS. Should you have any questions about this filing, please feel free to contact Mark Burley at (713) 860-6357 or Jennifer Monopolis at (832) 625-4895.

Respectfully submitted,

Richard D. Smith
Senior Regulatory Affairs Consultant
Golden Pass Products LLC
Golden Pass Pipeline LLC

cc: Service List, Docket No. CP14-518-000
Anthony E. Howard, FERC Staff

2

Golden Pass Products

L-104

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

Attachment 1

Golden Pass Products LNG Export Project
Docket Nos. CP14-517-000 and CP14-518-000
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

DEIS Comment Matrix

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
	Executive Summary					
AP1-1	1	Executive Summary	ES-1	Golden Pass proposes to construct and operate onshore natural gas liquefaction and associated facilities to allow the export of liquefied natural gas (LNG) in Texas, and to construct, own, operate, and maintain a new interstate natural gas pipeline, three new compressor stations, and ancillary facilities in Texas and Louisiana.	The project does not involve a new interstate pipeline. Suggest stating that it is expansion of an existing system.	Revise statement to: "*Golden Pass proposes to construct and operate onshore natural gas liquefaction and associated facilities in Texas and Louisiana to allow the export of liquefied natural gas (LNG), and to construct, own, operate, and maintain expansion of an existing interstate natural gas pipeline, consisting of three new compressor stations, and ancillary facilities in Texas and Louisiana.*"
AP1-2	2	Pipeline Expansion	ES-2	Golden Pass would modify existing interconnections and metering facilities associated with other pipeline systems, including Natural Gas Pipeline Company of America (MP 1), Texoma Pipeline Company (MP 33), TGP (MP 63), TETCO (MP 66), and Transcontinental Gas Pipe Line Company, LLC (MP 68.5) systems; and construct and operate associated facilities, including pig receivers and launchers and mainline valves.	Suggest edit, insertion of "the".	Revise statement to: "*Golden Pass would modify existing interconnections and metering facilities associated with other pipeline systems, including the Natural Gas Pipeline Company of America (MP 1), Texoma Pipeline Company (MP 33), TGP (MP 63), TETCO (MP 66), and Transcontinental Gas Pipe Line Company, LLC (MP 68.5) systems; and construct and operate associated facilities, including pig receivers and launchers2 and mainline valves.*"
AP1-3	3	Public Involvement	ES-3	On September 19, 2013, the FERC issued a Notice of Intent to Prepare an Environmental Assessment for the Planned Golden Pass LNG Export Project and Golden Pass Export Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meeting.	Suggest insertion of a footnote to clarify that the decision was made to complete an EIS instead of an EA on June 24[1].	Suggested footnote "*In a June 24, 2014 Project Update issued during the pre-filing process, the FERC provided notice that it intended to prepare an EIS for the planned project instead of an EA.*"

1

AP1-1 The text in the Executive Summary has been clarified.

AP1-2 The text in the Executive Summary has been clarified.

AP1-3 The text in the Executive Summary has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-4	4	Wetlands	ES-4	Construction of the Terminal Expansion would affect a total of 381.4 acres of wetlands; 372.5 acres would be permanently filled during operation of the Terminal Expansion.	Filling would occur during construction. Suggested text clarifies this.	Revise statement to: "*Construction of the Terminal Expansion would affect a total of 381.4 acres of wetlands; 372.5 acres would be permanently filled during construction of the Terminal Expansion.*"
AP1-5	5	Land Use	ES-4	The existing terminal includes outdoor lighting that consists primarily of downlighting for safety and lights on tall structures for aircraft warnings.	The existing tanks do not have lights for aircraft warning.	Revise statement to: "*The existing terminal includes outdoor lighting that consists primarily of downlighting for safety.*"
AP1-6	6	Air Quality and Noise	ES-5	The Air Quality Permit 116055 and the Prevention of Significant Deterioration Air Quality Permit PSDTX1386 for the Terminal Expansion and MP 1 Compressor Station were issued by the TCEQ on January 16, 2015, authorizing construction and operation of the Terminal Expansion.	Should include reference to Texas Commission on Environmental Quality (TCEQ) issued Permit GHGPSDTX100 (September 11, 2015).	Insert statement: "*The Air Quality Permit 116055 and the Prevention of Significant Deterioration Air Quality Permit PSDTX1386 for the Terminal Expansion and MP 1 Compressor Station were issued by the TCEQ on January 16, 2015, authorizing construction and operation of the Terminal Expansion.* ***On September 11, 2015, the TCEQ issued Permit GHGPSDTX100 (the final air preconstruction permit for the expanded terminal) to Golden Pass.***"
		Section 4.11.1.3 / Federal Air Quality Requirements	P4-127	On January 16, 2015, the TCEQ issued Permits 116055 and PSDTX1386 to Golden Pass, authorizing construction and operation of the expanded terminal.		Insert statement: "*On January 16, 2015, the TCEQ issued Permits 116055 and PSDTX1386 to Golden Pass, authorizing construction and operation of the expanded terminal.* ***On September 11, 2015, the TCEQ issued Permit GHGPSDTX100 (the final air preconstruction permit for the expanded terminal) to Golden Pass.***"

2

AP1-4 The text in the Executive Summary has been clarified.

AP1-5 The text in the Executive Summary has been clarified.

AP1-6 The text in the Executive Summary has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-7	7	Air Quality and Noise	ES-5	Golden Pass anticipates filing their minor NSR permit application for the MP 33 Compressor Station no later than the first quarter of 2016 to ensure that the required permit would be obtained within 18 months of construction, as required by the TCEQ air permitting regulations.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. See Attachment No. 4.	Revise statement to: "*Golden Pass anticipates filing their minor NSR permit application for the MP 33 Compressor Station no later than the first quarter of ~~2016~~ 2018 to ensure that the required permit would be obtained within 18 months of construction, as required by the TCEQ air permitting regulations.*"
	Section 1 - Introduction					
AP1-8	8	Introduction	1-1	Golden Pass anticipates initiating export of LNG in 2020 and beginning full production (up to 15.6 mtpy) in 2021.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. Based on the revisions, Golden Pass has also updated its construction schedule. See Attachment No. 4.	Revise statement to: "*Golden Pass anticipates initiating export of LNG in ~~2020~~ 2021 and beginning full production (up to 15.6 mtpy) in ~~2021~~ 2022.*"
AP1-9	9	Section 1.5 Table 1.5-1	1-10/12	Table 1.5-1 – Major Permits, Approvals, and Consultations for the Golden Pass LNG Export Project	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. See Attachment No. 4.	Revise table as noted in Attachment No. 2.
	Section 2 - Proposed Action					
AP1-10	10	Section 2.1.1	2-1	Golden Pass constructed the existing terminal to import LNG and to regasify and transport natural gas to the United States from foreign markets.	Suggest a revision to indicate ownership of the terminal, construction of the pipeline, and further clarify the purpose of the existing terminal.	Revise statement to: "*Golden Pass Terminal LLC and GPPL constructed the existing terminal and pipeline to enable the importation of LNG from foreign countries for ~~and to regasify~~ regasification and transportation to ~~natural gas to the~~ United States domestic ~~from foreign~~ markets.*"

3

AP1-7 The text in the Executive Summary has been updated with this new information.

AP1-8 The text in section 1.0 has been updated with this new information.

AP1-9 The text in section 1.5 has been updated with this new information.

AP1-10 The text in section 2.1.1 has been updated with this new information.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-11	11	Section 2.1.1	2-1	Golden Pass is currently authorized to receive a maximum of 200 LNG carriers per year at the terminal.	The U.S. Coast Guard's May 13, 2013 correspondence regarding the GPX Project, which was submitted in Appendix 1B of GPP's Application, states in pertinent part (emphasis added): "[T]he potential maximum vessel traffic with an output of 15.6 MTA will remain at ***approximately*** 200 vessels per year, which is the same level outlined in reference (c)." Note also that the term "approximately" is used instead of "maximum" in referring to vessel traffic levels in other parts of the DEIS (e.g., Section 4.21.1.11). *Reference: (a) Golden Pass letter dated May 1,2013* *(c) Golden Pass Waterway Suitability Assessment dated August 18,2005* *(e) Meeting with Golden Pass and ExxonMobil representatives on April 29, 2013*	Revise statement to: "*Golden Pass is currently authorized to receive approximately 200 LNG carriers per year at the terminal.*"
AP1-12	12	Section 2.0	2-3	Figure 2.0-2 – Liquefaction Project Site Map	The area which Golden Pass has opted to purchase is not depicted; only the original Golden Pass LNG Property Boundary is shown.	Revise figure to include the 281 acres property extension Golden Pass signed an option for, as provided to the FERC Docket on January 14, 2016 (Accession No. 20160114-5171). See Attachment No. 5.

4

AP1-11 The text in section 2.1.1 has been clarified.

AP1-12 Figure 2-3 has not been revised as Golden Pass filed that they had purchased the purchase option on January 14, 2016, but did not publicly file the associated map.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-13	13	Section 2.2.1	2-6	While Golden Pass would construct and operate the majority of the facilities within the existing Golden Pass property, the Terminal Expansion also would include about 215 acres of additional adjacent land that is privately owned.	Golden Pass signed an option for 281 acre property extension as provided to the FERC Docket on January 14, 2016 (Accession No. 20160114-5171). See Attachment No. 5, referenced in Comment No. 12 above.	Revise statement to: "*Golden Pass would construct and operate the majority of the facilities within the existing Golden Pass property.* ***Golden Pass has secured an option to purchase a 281 acres property extension.***"
AP1-14	14	Section 2.2.1.1	2-6	Two gas-fired turbine generators, each equipped with a heat recovery steam generator, would power each liquefaction train.	Statement is not technically correct. The reference should be to gas-fired **turbines**, not gas-fired **turbine generators**.	Revise statement to: "*Two gas-fired turbines, each equipped with a heat recovery steam generator, would power each liquefaction train.*"
AP1-15	15	Section 2.2.1.1	2-6	During the heavy hydrocarbon removal process, hydrocarbons lighter than pentane (i.e., methane, ethane, propane, and butane) would either be recycled to the beginning of the liquefaction process (described below) or routed to the fuel gas system.	Revised for technical accuracy.	Revise statement to: "*Treated gas from ~~During~~ the heavy hydrocarbon removal process containing~~,~~ hydrocarbons lighter than pentane (i.e., methane, ethane, propane, and butane) would either ~~either be recycled to~~ the beginning of the liquefaction process (described below) and a portion would be ~~or~~ re-routed to the fuel gas system as make up fuel.*"
AP1-16	16	Section 2.2.1.1	2-6	Liquefaction utility components would include a boil off gas (BOG) system, fuel gas system, hot oil system, flares, instrument and utility air systems, and a demineralization water unit.	Statement is not technically correct. There is no hot oil system planned.	Revise statement to: "*Liquefaction utility components would include a boil off gas (BOG) system, fuel gas system, ~~hot oil system,~~ steam system, flares, instrument and utility air systems, and a demineralization water unit.*"
AP1-17	17	Section 2.2.1.2	2-7	Golden Pass anticipates a delivery frequency of less than four trucks per month to the facility.	Suggest to clarify that would be for normal operations.	Revise statement to: "*Golden Pass anticipates a delivery frequency of less than four trucks per month to the facility* ***during normal operations.***"
AP1-18	18	Section 2.2.1.3	2-8	Electrical power would be generated for the Terminal Expansion through use of both high-pressure and low-pressure steam to drive new steam turbine generators in each of the three liquefaction trains.	Statement is not technically correct. Low-pressure steam would not be used.	Revise statement to: "*Electrical power would be generated for the Terminal Expansion through use of high-pressure steam ~~and low-pressure steam~~ to drive new steam turbine generators in each of the three liquefaction trains.*"

5

AP1-13 The text in section 2.2.1 has been updated.

AP1-14 The text in section 2.2.1.1 has been clarified.

AP1-15 The text in section 2.2.1.1 has been clarified.

AP1-16 The text in section 2.2.1.1 has been clarified.

AP1-17 The text in section 2.2.1.2 has been clarified.

AP1-18 The text in section 2.2.1.3 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-19	19	Section 2.2.1.5	2-11	• replacement of two existing pumps in each of the five LNG storage tanks with a larger operations pump and a larger spare pump to meet the LNG loading requirements;	Statement is not technically correct. Two pumps are required, the second pump is not a spare.	Revise statement to: "• *replacement of two existing pumps in each of the five LNG storage tanks with a larger* ~~*operations*~~ *pumps* ~~*and a larger spare pump*~~ *to meet the LNG loading requirements;*"
AP1-20	20	Section 2.2.2.1	2-13	The expansion would extend from an interconnection with a surface facility operated by TETCO near MP 63 of the existing Golden Pass Pipeline to a new compressor station near a surface facility operated by TGP near MP 66 (see figures 2.0-3 and 2.0-4 and appendix B)	The pipeline interconnect names for MP 63 and MP 66 are reversed.	Revise statement to: "*The expansion would extend from an interconnection with a surface facility operated by* ***TGP*** *near MP 63 of the existing Golden Pass Pipeline to a new compressor station near a surface facility operated by* ***TETCO*** *near MP 66 (see figures 2.0-3 and 2.0-4 and appendix B).*"
AP1-21	21	Section 2.2.2.2 / Compress. Stations	2-14	The MP 1 Compressor Station would have two electrically driven, 5,583-hp turbines and the MP 33 Compressor Station would have two gas-driven, 8,997-hp turbines	Not technically correct as written.	Revise statement to: "*The MP1 Compressor Station would have two electrically driven, 5,583-hp* ***compressors*** *and the MP 33 Compressor Station would have two 8,997-hp* ***gas turbine driven compressors****.*"
AP1-22	22	Section 2.2.2.2 / Compress. Stations	2-14	The low pressure system would include two gas-driven, 8,475-hp turbines to mix the natural gas stream from the Transco interconnection (MP 68.5) with the natural gas streams from the TETCO and TGP interconnections (MPs 66 and 63, respectively).	Typo in reporting the horsepower number. The decimal point in the horsepower figure should be a comma.	Revise statement to: "*The low pressure system would include two gas-driven, 8,475-hp turbines to mix the natural gas stream from the Transco interconnection (MP 68.5) with the natural gas streams from the TETCO and TGP interconnections (MPs 66 and 63, respectively).*"
AP1-23	23	Section 2.2.2.2 / Launchers/Receivers and Mainline Valve	2-14	One new MLV would be installed along the existing Golden Pass Pipeline at about MP 69.6.	The mile post number listed is incorrect.	Revise statement to: "*One new MLV would be installed along the existing Golden Pass Pipeline at about MP* ***66****.*"
AP1-24	24	Section 2.3 2.3.1	2-15	All onshore areas would be graveled or otherwise stabilized to prevent erosion.	To describe it as "all onshore areas" is not correct. Only disturbed areas would be graveled or otherwise stabilized.	Revise statement to: "*All* ***disturbed*** *areas would be graveled or otherwise stabilized to prevent erosion.*"

6

AP1-19 The text in section 2.2.1.5 has been clarified.

AP1-20 The text in section 2.2.1.5 has been corrected.

AP1-21 The text in section 2.2.2.2 has been clarified.

AP1-22 The text in section 2.2.2.2 has been corrected.

AP1-23 The text in section 2.2.2.2 has been corrected.

AP1-24 The text in section 2.3 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-25	25	Section 2.3 Table 2.3-1	2-16	Multiple revisions have been identified for both the Terminal Expansion and Pipeline Expansion.	Primary edits include: Missing number for Terminal Expansion. The *Supply Dock* acreage is also included in the *Terminal Expansion* number of 761.4, so the acreage for the Supply Dock is being double-counted with it having its own row. Suggest removing the Supply Dock acreage from the Terminal Expansion line and updating the subtotal and total rows. The stated land requirements of the Calcasieu Loop construction and permanent right-of-way appear incorrect. As provided in the May 4, 2016 Response to DEIS Mitigation Measure No. 18 under separate cover, Golden Pass has revised the footprint of the MP 68 Compressor Station and TETCO Interconnection.	Revise table as noted in Attachment No. 2.

7

AP1-25 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-26	26	Section 2.4	2-18	Golden Pass anticipates constructing and placing the Terminal Expansion in service in three phases, with construction starting in 2016 (assuming receipt of all authorizations and necessary permits). Golden Pass plans to have the first liquefaction train and associated facilities completed and in service by July 2020. Construction of the second liquefaction train would begin about 6 months after initiation of construction of the Terminal Expansion, and construction of the third liquefaction train would start about 6 months after that, with full service anticipated for the third quarter of 2021. Golden Pass would begin construction of the Pipeline Expansion in 2018 and anticipates completion in 2019, prior to completion of the first liquefaction train, with construction taking place over a period of 15 months.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. Based on the revisions, Golden Pass has also updated its construction schedule. See Attachment No. 4.	Revise statement to "*Golden Pass anticipates constructing and placing the Terminal Expansion in service in three phases, with construction starting in ~~2016~~ **2017** (assuming receipt of all authorizations and necessary permits). Golden Pass plans to have the first liquefaction train and associated facilities completed and in service by July ~~2020~~ **2021**. Construction of the second liquefaction train would begin about 6 months after initiation of construction of the Terminal Expansion, and construction of the third liquefaction train would start about 6 months after that, with full service anticipated for the third quarter of ~~2021~~ **2022**.* *Golden Pass would begin construction of the Pipeline Expansion in ~~2018~~ **2019** and anticipates completion in ~~2019~~ **2020**, prior to completion of the first liquefaction train, with construction taking place over a period of 15 months.*"
AP1-27	27	Section 2.6.1.1	2-20	The expanded levee would have a height of 16 feet above mean lower low water (thereby exceeding the 100-year flood level).	The height of the levee is incorrectly stated as 16 ft. above Mean Lower Low Water. The levee height is elevation 16 feet in reference to the North American Vertical Datum of 1988 (NAVD88). The elevation of the levee is stated correctly in 4.12.1.3.	Revise statement to "*The expanded levee would have a height of 16 feet (NAVD 88) (thereby exceeding the 100-year flood level).*"

8

AP1-26	The text in section 2.4 has been updated with this new information.
AP1-27	The text in section 2.6.1.1 has been corrected.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-28	28	Section 2.6.1.9	2-23	The fourth outfall would be collocated with the eastern berth of the Ship Slip at a depth of -15 feet (NAVD 88).	In accordance with Golden Pass' National Pollutant Discharge Elimination System application, the outfall pipe will be located at a port depth (centerline) of -4.57 m mean sea level (MSL.).-15.42 ft. NAVD88. Suggest clarification.	Revise statement to: "*The fourth outfall would be collocated with the eastern berth of the Ship Slip at a depth of* ***approximately*** *-15.4 feet (NAVD 88).*
AP1-29	29	Section 2.6.4.1	2-33	Golden Pass would hydrostatically test all facility piping, both above and below ground, before it is placed in service. Prior to discharge, Golden Pass would test the hydrostatic water in accordance with its LDEQ Hydrostatic Test Water Discharge Permit, which requires testing for oil and grease and pH, and monitoring of the discharge water for visible sheen.	Since this section includes the MP1 and MP33 Compressor Stations in Texas, as well as the pipeline components in Louisiana, it should also reference the appropriate Texas agencies.	Revise statement to: "*Golden Pass would hydrostatically test all facility piping, both above and below ground, before it is placed in service. Prior to discharge, Golden Pass would test the hydrostatic water in accordance with its* ***Texas Railroad Commission (Texas RRC) and*** *Louisiana Department of Environmental Quality (LDEQ) Hydrostatic Test Water Discharge Permits, which requires testing for oil and grease and pH, and monitoring of the discharge water for visible sheen.*"
	Section 3 – Alternatives					
AP1-30	30	Section 3.3.1	3-18	Thus, construction at this site would disturb about 436 acres of wetlands as compared to the 311 acres of wetlands that would be affected by construction at the proposed Terminal Expansion site.	The proposed site will impact 381 acres of wetlands not 311.	Revise statement to: "*Thus, construction at this site would disturb about 436 acres of wetlands as compared to the* ***381*** *acres of wetlands that would be affected by construction at the proposed Terminal Expansion site.*"
AP1-31	31	Section 3.5.2	3-24	Each train would have two steam turbine generators to provide the necessary power requirements for the refrigeration compressors.	Each train would only have one steam turbine.	Revise statement to: "*Each train would have* ***one*** *steam turbine generator to provide the necessary power requirements for the refrigeration compressors.*"
AP1-32	32	Section 3.5.2	3-24	All of the turbines would be equipped with selective catalytic reduction and oxidation catalysts to reduce NOx and monoxide emissions, respectively.	Suggested clarification that the turbines/HRSG would be equipped.	Revise statement to: "*All of the turbines/****HRSGs*** *would be equipped with selective catalytic reduction and oxidation catalysts to reduce NOx and monoxide emissions, respectively.*"

9

AP1-28 The text in section 2.6.1.9 has been clarified.

AP1-29 The text in section 2.6.4.1 has been clarified.

AP1-30 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

AP1-31 The text in section 3.5.2 has been corrected.

AP1-32 The text in section 3.5.2 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-33	33	Section 3.7.1.2	3-25	The proposed location for the MP 33 Compressor Station is on land owned by Golden Pass in the immediate vicinity of the north side of the existing Texoma Interconnection facilities and its mainline compressor station.	Golden Pass does not currently own the land at the location of the MP33 Compressor Station.	Revise statement to: "*The proposed location for the MP 33 Compressor Station is in the immediate vicinity of the north side of the existing Texoma Interconnection facilities and its mainline compressor station.*"
AP1-34	34	Section 3.7.1.3	3-26	The proposed location of the MP 66 Compressor Station is on land owned by Golden Pass, immediately northwest of the existing TETCO Interconnection facilities.	Golden Pass does not own the land at the location of the MP66 Compressor Station.	Revise statement to: "*The proposed location of the MP 66 Compressor Station is immediately northwest of the existing TETCO Interconnection facilities.*"
	Section 4 – Environmental Impact Analysis					
AP1-35	35	Section 4.1.2.1	4-4	Six of these pipelines run through or across the Terminal Expansion site. These lines would not be disturbed during construction or operation of the Project.	Seven of the nine pipelines within 0.25 mile of the site run through the site if you include the Golden Pass pipeline. NGPL will be re-routing two of these pipelines as a result of the GPX Terminal expansion: • NGPL – Louisiana Pipeline #1 • NGPL – Louisiana Pipeline #2 Of note, the RRC's line file does not accurately reflect the NGPL #1 route.	Revise statement to: "*Seven of these pipelines run through or across the Terminal Expansion site, including the GP Pipeline. Two of the foreign lines would temporarily be placed out of service and relocated on-site. The remaining four foreign lines would not be disturbed.*"
AP1-36	36	Section 4.1.6.3 / Wind Design	4-10/11	LNG facilities, as defined in 49 CFR 193, would be designed for a sustained wind speed of 150 mph, which is equivalent to a 183-mph, 3-second gust wind speed. Other facilities would be designed for a 145-mph, 3-second gust wind speed in accordance with ASCE 7-05.	The way the statement is written it appears to be stating that there are two different design criteria regarding wind speed, one for LNG facilities and another for all other facilities. However, all facilities will be designed to the same wind speed.	Revise statement to: "*All facilities will be designed to the same wind speed. The design wind speed will be as prescribed in 40CFR193 as 150 mph sustained ultimate wind velocity. This is equivalent to a 183 mph 3 second gust ultimate wind velocity. For purposes of ASCE 7-05, the service level design wind speed is obtained by dividing the 183 mph by the square root of the load factor; 145 mph = 183 mph / √1.6.*"

10

AP1-33 The text in section 3.7.1.2 has been clarified.

AP1-34 The text in section 3.7.1.3 has been clarified.

AP1-35 The text in section 4.1.2.1 has been updated with this new information.

AP1-36 The text in section 4.1.6.3 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-37	37	Section 4.2.1.1	4-12	According to Golden Pass, about 22,000 yd3 of dredged material would be reused to construct storm berms.	New dredged material may be used to construct berms within the DMPA as part of the disposal activity. However, no dredged material would be used for the storm surge barrier berm at the terminal site.	Suggest the following statement is removed to avoid confusion: "~~According to Golden Pass, about 22,000 yd3 of dredged material would be reused to construct storm berms.~~"
AP1-38	38	Section 4.2.6.2	4-17	Once the pipeline is installed along the Calcasieu Loop, the right-of-way and the ATWS would be restored according to the restoration and reseeding measures contained in the FERC's.	Incomplete sentence, missing something after "FERC's".	Revise statement to: "*Once the pipeline is installed along the Calcasieu Loop, the right-of-way and the ATWS would be restored according to the restoration and reseeding measures contained in the FERC's* ***Plan and Procedures****.*"
AP1-39	39	Section 4.3.1.2 / Terminal Expansion	4-25	Both the Supply Dock and access channel would be dredged to 20 feet below MSL (plus or minus 2 feet of depth). The temporary float channels would be dredged to 7 feet below MSL (plus or minus 2 feet of depth).	As written in this location, the access to the MOF could be mistaken for the access channel that will be dredged parallel to the shoreline immediately west of the Supply Dock to position a barge that would be used as a floating dock at the shoreline.	Revise statement to: "*The Supply Dock and access would be dredged to 20 feet below MSL (plus or minus 2 feet of depth), the access channel to 14 feet below MSL (plus or minus 2 feet of depth), and the temporary float channels to 7 feet below MSL (plus or minus 2 feet of depth).*"
AP1-40	40	Section 4.3.2.1 / Terminal Expansion Section 4.3.2.2 / Hydrostatic Testing	4-25 4-36	Hydrostatic testing of the new piping and LNG tanks at the Terminal Expansion would be conducted to ensure the integrity of these components before placing the facility into service. Golden Pass would hydrostatically test the piping and LNG storage tanks to verify the integrity of these facilities prior to placing them in service.	New LNG tanks are not being built. As written, it sounds like there would be new LNG tanks which require hydrostatic testing. New tanks (utilities and by-product storage) will be constructed and hydrotested in accordance with appropriate regulation.	Revise statement to: "*Hydrostatic testing of new piping and storage tanks at the Terminal Expansion would be conducted to ensure the integrity of these components before placing the facility into service.*" Revise statement to: "*Golden Pass would hydrostatically test piping and storage tanks to verify the integrity of these facilities prior to placing them in service.*"

11

AP1-37 The text in section 4.2.1.1 has been clarified.

AP1-38 The text in section 4.2.6.2 has been clarified.

AP1-39 The text in section 4.3.1.2 has been clarified.

AP1-40 The text in sections 4.3.2.1 and 4.3.2.2 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-41	41	Section 4.3.2.2 Table 4.3-4 Golden Pass' Requested Deviations from the FERC Procedures	4-41	Portions of the Terminal Expansion, MP 1 Compressor Station, MP 33 Compressor Station, and MP 66 Compressor Station facilities would be sited within wetlands. Not Justified for the MP 33 and MP 66 Compressor Stations. See discussion and recommendation in section 4.4.2.2.	As provided in the May 4, 2016 Response to DEIS Mitigation Measure No. 18, Golden Pass has revised the footprint of the MP 66 Compressor Station and TETCO Interconnection such that it will not result in any permanent wetland fill.	Revise table to indicate that the variance is no longer being requested for the MP 66 Compressor Station.
AP1-42	42	Section 4.4.2.1 Table 4.4.2-1	4-49 and 4-50	Multiple revisions have been identified for the Pipeline Expansion.	The DEIS currently lists palustrine emergent (PEM) wetlands within the permanent right-of-way (ROW) of the Calcasieu Loop and interconnects as being permanently impacted. Although they will be located within the permanent ROW, they will be allowed to revegetate and return to pre-construction conditions following construction. Wetlands within the permanent ROW of the Calcasieu Loop and interconnect piping would be part of the Project's permanent land use (footprint); however, impacts to these wetlands would not be permanent. As provided in the May 4, 2016 Response to DEIS Mitigation Measure No. 18, Golden Pass has revised the footprint of the MP 66 Compressor Station and TETCO Interconnection such that it will not result in any permanent wetland fill.	Revise table as noted in Attachment No. 2.

12

AP1-41 Table 4.3-4 has been updated based on this new information.

AP1-42 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-43	43	Section 4.5.1.1	4-58	Vegetation would be removed at the ground surface using mechanical or manual methods, or a combination of the two (vegetation would not be burned).	Burning will be required at the GPX Terminal site.	Revise statement to: "*Vegetation would be removed at the ground surface using mechanical or manual methods, or a combination of the two. Vegetation would potentially be burned.*"
AP1-44	44	Section 4.5.1.1 Table 4.5-1	4-55 through 4-57	Multiple revisions have been identified for both the Terminal Expansion and Pipeline Expansion.	The table should be revised to depict temporary versus permanent impacts to accurately reflect affects to vegetation. Vegetation which will be avoided by the use of the HDD method is included in the Table. The HDD segment will avoid affects to vegetation. Vegetation within the permanent ROW of the Calcasieu Loop and interconnect piping would be part of the Project's permanent land use (footprint); however, impacts to non-forested vegetation would not be permanent. The area would be allowed to revegetate to pre-construction conditions. As provided in the May 4, 2016 Response to DEIS Mitigation Measure No. 18, Golden Pass has revised the footprint of the MP 66 Compressor Station and TETCO Interconnection.	Revise table as noted in Attachment No. 2.

13

AP1-43 The text in section 4.5.1.1 has been clarified.

AP1-44 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-44 (cont.)	44, ***Continued***	Section 4.5.1.1 Table 4.5-1	4-55 through 4-57	Multiple revisions have been identified for both the Terminal Expansion and Pipeline Expansion.	***This is a continuation of the comment on the previous page*** The acreages reported for the Terminal represent "permanent" land use acreages affected and not "operational" land use acreages as listed in the title. Golden Pass has identified some areas which are considered to be used only during construction but will be graveled or otherwise stabilised to prevent erosion. These areas will remain in a graveled sate following construction but are not considered operational areas.	Revise table as noted in Attachment No. 2.
AP1-45	45	Section 4.6.3.1 / Hydrostatic Testing	4-70	All hydrostatic test water would be obtained from a municipal water source.	To make consistent with other sections, the option of purchased raw water should be included (e.g., Section 4.3.1.2).	Revise statement to: "*The source of the hydrostatic test water would either be municipal supplies or purchased raw water.*"
AP1-46	46	Section 4.6.3.2 / Inadvertent Spills	4-73	Water quality could be adversely affected by an accidental spill of hazardous material into or near a waterbody; however, with strict adherence to FERC's Procedures, SPCC Plan, and SWPPP in addition to all permit and agency requirements, impacts if spills on aquatic resources associated with construction and operation of the Pipeline Expansion would be minimal.	Requirements for the pipeline's aboveground facilities to have both a SPCC Plan and SWPPP during operations will be determined on a case-by-case basis according to applicable regulations.	Revise statement to: "*Water quality could be adversely affected by an accidental spill of hazardous material into or near a waterbody; however, with strict adherence to FERC's Procedures, SPCC Plan, and SWPPP,* ***as applicable****, in addition to all permit and agency requirements, impacts if spills on aquatic resources associated with construction and operation of the Pipeline Expansion would be minimal.*"

14

AP1-45 The text in section 4.6.3.1 has been clarified.

AP1-46 The text in section 4.6.3.2 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-47	47	Section 4.8.1 Table 4.8.1-1	4-89 to 4-91	Multiple revisions have been identified for both the Terminal Expansion and Pipeline Expansion.	Land use affects will be avoided by the use of the HDD method. As provided in the May 4, 2016 Response to DEIS Mitigation Measure No. 18, Golden Pass has revised the footprint of the MP 66 Compressor Station and TETCO Interconnection. The acreages reported for the Terminal represent "permanent" land use acreages affected and not "operational" land use acreages as listed in the title. Golden Pass has identified some areas which are considered to be used only during construction but will be graveled or otherwise stabilised to prevent erosion. These areas will remain in a graveled sate following construction but are not considered operational areas	Revise table as noted in Attachment No. 2.
AP1-48	48	Section 4.8.2.1	4-96	Of the 918.7 acres required for construction of the Terminal Expansion, 724.7 acres are under the ownership of Golden Pass and are within the existing Golden Pass Import Terminal property boundaries. The remaining 194.0 acres of land are privately owned. Golden Pass is currently in consultation with the appropriate agencies and landowners on acquisition of these lands.	Golden Pass signed an option for 281 acre property extension as provided to the FERC Docket on January 14, 2016 (Accession No. 20160114-5171). See Attachment No. 5, referenced in Comment Nos. 12 and 13 above.	Revise statement to: "*Of the 918.7 acres required for construction of the Terminal Expansion, 724.7 acres are under the ownership of Golden Pass and are within the existing Golden Pass Import Terminal property boundaries.* ***Golden Pass has secured an option to purchase the additional 194.0 acres and an additional 87 acres of privately owned land.***"

15

AP1-47 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

AP1-48 The text in section 4.8.2.1 has been updated with this new information.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-49	49	Section 4.9.6.1	4-110	Operation of the expanded Terminal would increase freight and worker traffic but not to the extent of the construction traffic. During operation, trucks would deliver refrigerant for use in the liquefaction process and trucks would haul away condensate product. Golden Pass estimates the potential transits to and from the expanded Terminal would be 15 per day.	The estimated 15 trips per day is for deliveries and shipments to the Terminal itself. An additional, less than five trucks per day, is estimated for the tanker truck traffic related to refrigerant deliveries and condensate hauling to the truck loading/unloading facility.	Revise statement to: "*Operation of the expanded Terminal would increase freight and worker traffic but not to the extent of the construction traffic. Golden Pass estimates approximately 15 trips per day for deliveries and shipments. In addition, during operations trucks would also deliver refrigerant for use in the liquefaction process and trucks would haul away condensate product. Golden Pass estimates the potential transits to and from the expanded Terminal for this activity would be less than 5 trucks per day.*
AP1-50	50	Section 4.11.1-2 Table 4.11.1.1	4-118	Ozone (O_3) 8-hour Primary and Secondary Standard: 0.075 ppm	U.S. Environmental Protection Agency (EPA) revised the ozone National Ambient Air Quality Standards (NAAQS) to 0.070 ppm on December 28, 2015 but grandfathered Prevention of Significant Deterioration (PSD) permits that had been issued or had significantly progressed through the PSD permitting process to the 2008 0.075 ppm standard.	Suggested footnote for Table 4.11.1-1: "*The TCEQ issued the air permits for the Project (Permit Nos. 116055, PSDTX1386 and GHGPSD100) to be effective September 11, 2015 in compliance with the 2008 Ozone NAAQS of 0.075 ppm. Since issuance, EPA revised the ozone NAAQS to 0.070 ppm on December 28, 2015 but grandfathered PSD permits that had been issued or had significantly progressed through the PSD permitting process to the 2008 0.070 ppm standard. 40 CFR 51.116(l)(11); 40 CFR 52.21(l)(12). EPA determined that "[it is] clear that the interests behind CAA section 162 include both protection of air quality and timely decision-making on pending permit applications. The legislative history illustrates congressional intent to avoid delays in permit processing." 80 Fed. Reg. 65434 (Oct. 26, 2016). Therefore, in compliance with the 2015 Ozone NAAQS rule, the Project is grandfathered to and should be evaluated against the 2008 Ozone NAAQS.*"

16

AP1-49 The text in section 4.9.6.1 has been clarified.

AP1-50 Table 4.11.1.1 has been updated.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-51	51	Section 4.11.1.2 / Air Quality Monitoring and Existing Air Quality	4-120	All monitored data were below the NAAQS, except for the 8- hour O3 value averaged during the 3-year period from 2011 through 2013. This average 8-hour O3 result of 76 ppb (1 ppb slightly above the O3 NAAQS) was calculated from the Sabine Pass monitoring station data.	These two sentences should be deleted and rewritten. EPA requires that the additional digits to the right of the third decimal place are truncated, and not rounded. 73 FR 16436 (March 27, 2008). Appendix U to Part 50 – Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone. 2.1. Therefore, based upon the 2011 - 2013 Sabine Pass monitoring data, the three-year design value average from 2011 - 2013 is 0.0756 ppm, which results in 0.075 ppm when truncated as required by EPA regulations and is in compliance with the 2008 ozone NAAQS. For the most recent three year average, the ozone levels have declined and the BPA design value for 2012 - 2015 is now 0.068 ppm.	Suggested revision: "*All monitored data were below the NAAQS. Based upon the 2011 - 2013 Sabine Pass monitoring data, the three-year design value average from 2011 - 2013 is 0.0756 ppm, which results in 0.075 ppm when truncated as required by EPA regulations and is in compliance with the 2008 ozone NAAQS. For the most recent three year average, the ozone levels have declined and the BPA design value for 2012 - 2015 is now 0.068 ppm.*"
AP1-52	52	Section 4.11.1.2 Table 4.11.1-2	4-121	Column 3 (Highest Monitored Value), Row 7 (O_3)	On Table 4.11.1-2 the ozone value column should be corrected from 76 to 75.6 ppb. EPA requires that the additional digits to the right of the third decimal place are truncated, and not rounded. 73 FR 16436 (March 27, 2008). Appendix U to Part 50 – Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone. 2.1.	Column 3 (Highest Monitored Value), Row 7 (O_3) should be ***75.6*** instead of 76
AP1-53	53	Section 4.11.1.3 / Federal Air Quality Requirements	4-124	• it has a PTE greater than or equal to 100 tpy (if classified in one of the 28 named source categories listed in Section 169 of the CAA) or 250 tpy for any other type of source.	This bullet point should be deleted because it is not correct due to the June 23, 2014, U.S. Supreme Court Utility Air Regulatory Group v. EPA (No. 12-1146) decision.	Delete: "• ~~*it has a PTE greater than or equal to 100 tpy (if classified in one of the 28 named source categories listed in Section 169 of the CAA) or 250 tpy for any other type of source*~~."

17

AP1-51 The text in section 4.11.1.2 has been updated.

AP1-52 The information in table 4.11.1-2 has been clarified.

AP1-53 The text in section 4.11.1.3 has been updated.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-54	54	Section 11.1.3 Table 4.11.1-5	4-125/126	Terminal Expansion: • Column 1 (Emission Unit), Row 8 (Storage tanks) • Row 9 (Condensate storage tank loading) MP 1 Compressor Station: • Column 6 (VOC), Row 15 (Fugitive emissions) • Column 6 (VOC), Row 18 (TOTAL)	Only 9 tanks vent directly to the atmosphere. The 10th tank (condensate storage tank) vents to the Thermal Oxidizer and the emissions are accounted for in ROW 4 (Thermal oxidizers). Suggested correction to "<0.1" instead of 1.6 tpy	Terminal Expansion: • Column 1 (Emission Unit), Row 8 (Storage tanks) – Revise (10) to "**(9)**" • **Remove** Row 9 (Condensate storage tank loading) in its entirety MP1 Compressor Station: • Column 6 (VOC), Row 15 (Fugitive emissions) – Revise 1.6 to "**<0.1**" • Column 6 (VOC), Row 18 (TOTAL) – Revise 258.4 to "**256.7**"
AP1-55	55	Section 4.11.1.3	4-126/127	As shown in table 4.11.1-4, the Terminal Expansion and MP 1 Compressor Station would be a PSD major source, as the projected emissions for NOx, CO, and CO2-eq are above the major stationary thresholds.	Incorrect table reference is listed. The reference should be table 4.11.1-5. Statement should also reference VOC as being above the major stationary thresholds.	Revise statement to: "*As shown in table **4.11.1-5**, the Terminal Expansion and MP 1 Compressor Station would be a PSD major source, as the projected emissions for NOx, **VOC**, CO, and CO2-eq are above the major stationary thresholds.*"
AP1-56	56	Section 4.11.1.3 / General Conformity	4-129	See table 4.11.1-6 for demonstration of applicability of General Conformity rules for the BPA maintenance and HGB marginal and severe nonattainment areas for O_3.	Beaumont-Port Arthur Area (BPA) is no longer a maintenance area.	Revise the General Conformity section to include the following: "*Areas designated as "attainment" are not subject to General Conformity. 40 CFR Section 93.153. Because the Beaumont-Port Arthur Area is designated as "attainment" under the Final 2008 Ozone Rule, a General Conformity Determination for the Project is not required. BPA was a Maintenance Area under the 1997 Ozone NAAQS; this designation was removed when EPA revoked the 1997 Ozone NAAQS on April 16, 2015 in the final 2008 NAAQS Ozone Implementation Rule. 80 Fed. Reg. 12264 (March 6, 2015). Therefore, because EPA has revoked the 1997 ozone NAAQS and BPA is now designated as attainment, General Conformity is not required for this project in the BPA area.*"

18

AP1-54 Table 4.11.1-5 has been revised accordingly.

AP1-55 The cross-reference to the table has been corrected.

AP1-56 The text in section 4.11.1.1 has been updated and clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-57	57	Section 4.11.1.3 / New Source Review/Prevention of Significant Deterioration	4-131	To ensure that the required minor NSR permit for the MP 33 Compressor Station is obtained within 18 months of the start of construction, the anticipated date for filing an application with the TCEQ for this compressor station is first quarter of 2016. Golden Pass anticipates filing its minor NSR permit application for the MP 86 Compressor Station with the LDEQ in June 2017.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. See Attachment No. 4.	Revise statement to: "*To ensure that the required minor NSR permit for the MP 33 Compressor Station is obtained within 18 months of the start of construction, the anticipated date for filing an application with the TCEQ for this compressor station is first quarter of ~~2016~~ **2018**. Golden Pass anticipates filing its minor NSR permit application for the MP 86 Compressor Station with the LDEQ in June ~~2017~~ **2018**.*"

19

AP1-57 The text in section 4.11.1.3 has been updated with the new information.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-58	58	Section 11.1.3 Table 4.11.1-7	4-132	MP 33 Compressor Station: • Column 4 (SO2), Row 2 (NG-fired compressors) • Column 6 (VOC), Row 7 (Truck loading operations) • Column 4 (SO2), Row 8 (TOTAL – MP 33) MP 66 Compressor Station: • Column 3 (CO), ROW 10 (Natural gas-fired compressors) • Column 8 (GHG), ROW 10 (Natural gas-fired compressors) • Column 1 (Emission Unit), Row 12 (NG Essential Generators) • Column 2 (NOx), Row 12 (NG Essential Generators) • Column 3 (CO), Row 12 (NG Essential Generators) • Column 8 (GHG), Row 12 (NG Essential Generators) • Column 2 (NOx), Row 17 (TOTAL – MP 66) • Column 3 (CO), Row 17 (TOTAL – MP 66) • Column 8 (GHG), Row 17 (TOTAL – MP 66)	Minor revisions to the accuracy of the numbers provided in the table. The MP 66 Compressor Station has 1 NG Essential Generator not 7, as listed.	MP 33 Compressor Station: • Column 4 (SO2), Row 2 (NG-fired compressors) – Revise 0.2/0.1 to "**2.1**" • Column 6 (VOC), Row 7 (Truck loading operations) – Revise 0.0 to "**<0.1**" • Column 4 (SO2), Row 8 (TOTAL – MP 33) – Revise 0.2/0.1 to "**2.1**" MP 66 Compressor Station: • Column 3 (CO), ROW 10 (Natural gas-fired compressors) – Revise 162.9 to "**163.8**" • Column 8 (GHG), ROW 10 (Natural gas-fired compressors) – Revise 305,232 to "**305,237**" • Column 1 (Emission Unit), Row 12 (NG Essential Generators) – Revise (7- 100 hours/year) to "(**1 – 100 hours/year**)" • Column 2 (NOx), Row 12 (NG Essential Generators) – Revise 1.0 to "**0.1**" • Column 3 (CO), Row 12 (NG Essential Generators) – Revise 2.2 to "**0.3**" • Column 8 (GHG), Row 12 (NG Essential Generators) – Revise 68 to "**9.7**" • Column 2 (NOx), Row 17 (TOTAL – MP 66) – Revise 201.4 to "**200.5**" • Column 3 (CO), Row 17 (TOTAL – MP 66) – Revise 210.7 to "**209.7**" • Column 8 (GHG), Row 17 (TOTAL – MP 66) – Revise 393,985 to "**393,932**"
AP1-59	59	Section 4.11.1.3 / Title V Operating Permit	4-133	Golden Pass anticipates filing its Title V operating permit application for the MP 66 Compressor Station with the LDEQ in June 2017.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. See Attachment No. 4.	Revise statement to: "Golden Pass anticipates filing its Title V operating permit application for the MP 66 Compressor Station with the LDEQ in June ~~2017~~ **2018**."

20

AP1-58 Table 4.11.1-7 has been updated.

AP1-59 The text in section 4.11.1.3 has been updated with the new information.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-60	60	Section 4.11.1.3 / Applicable State Air Quality Require.	4-133	The Louisiana Administrative Code Title 33, Part III (LAC, 2014) regulations listed below would apply to the new emission units and fugitive emissions associated with the MP 66 Compressor Station: • Chapter 9 – General Regulations on Control of Emissions and Emission Standards; • Chapter 11 – Control of Emissions of Smoke; • Chapter 13 – Emission Standards for Particulate Matter; • Chapter 15 – Emission Standards for Sulfur Dioxide; • Chapter 17 – Control of Emissions of Carbon Monoxide (New Sources); • Chapter 21 – Control of Emission of Organic Compounds; and • Chapter 51 – Comprehensive Toxic Air Pollutant Emission Control Program. Golden Pass would comply with all applicable state requirements.	The bullet list should be simplified to clarify which ones specifically apply to the Project.	Revise statement to: "*The Louisiana Administrative Code Title 33, Part III (LAC, 2014) regulations listed below would apply to the new emission units and fugitive emissions associated with the MP 66 Compressor Station:* • *Chapter 9 – General Regulations on Control of Emissions and Emission Standards;* • *Chapter 11 – Control of Emissions of Smoke;* • *Chapter 13 – Emission Standards for Particulate Matter;* • ~~*Chapter 15 – Emission Standards for Sulfur Dioxide;*~~ • ~~*Chapter 17 – Control of Emissions of Carbon Monoxide (New Sources);*~~ • *Chapter 21 – Control of Emission of Organic Compounds; and* • ~~*Chapter 51 – Comprehensive Toxic Air Pollutant Emission Control Program.*~~ *Golden Pass would comply with all applicable state requirements.*"

21

AP1-60 The text in section 4.11.1.3 has been revised appropriately.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-61	61	Section 4.11.1.4 / Pipeline Expansion – On-road, Off-road, and Mobile Equipment Emissions	4-138	During construction of the pipeline, Golden Pass may use open burning as an option to dispose of cleared and removed timber and vegetation. Open burning would be conducted in accordance with the requirements of TAC Title 30 Environmental Quality, Part 1 TCEQ, Chapter III (Control of Air Pollution from Visible Emissions and Particulate Matter), Subchapter B (Outdoor Burning), Rule 111.219 (General Requirements for Allowable Outdoor Burning – Requirements 3, 4, 6, and 7) for open burning. Air emissions from open burning also would include NOx (9.8 tpy), CO (343.0 tpy), VOC (46.6 toy), and CH4 (14.0 tpy or 350 tpy in CO2-eq).	This information is relative to the GPX Terminal site. It should be moved up under the Terminal Expansion subsection of Section 4.11.1.4.	Move text to Section 4.11.1.4 / Terminal Expansion – On-road, Off-road, and Mobile Equipment Emissions Revise statement to: "*During construction of the **terminal expansion**, Golden Pass may use open burning as an option to dispose of cleared and removed timber and vegetation. Open burning would be conducted in accordance with the requirements of TAC Title 30 Environmental Quality, Part 1 TCEQ, Chapter III (Control of Air Pollution from Visible Emissions and Particulate Matter), Subchapter B (Outdoor Burning), Rule 111.219 (General Requirements for Allowable Outdoor Burning – Requirements 3, 4, 6, and 7) for open burning. Air emissions from open burning also would include NOx (9.8 tpy), CO (343.0 tpy), VOC (46.6 toy), and CH4 (14.0 tpy or 350 tpy in CO2-eq).*"
AP1-62	62	Section 4.11.1.5 / BACT for Flares	4-146	The applicable general control device and work practice requirements under 40 CFR 60.18 and good combustion practices were determined as BACT for the flares to minimize NOx and CO emissions.	Suggest that a clarification is made concerning authorization of a ground flare.	Suggested addition: "*If approved by the appropriate reviewing authority (EPA or TCEQ), alternative requirements may apply to the wet/dry ground flare.*"
AP1-63	63	Section 4.11.1.5 / BACT for Diesel and Natural Gas Essential Generators	4-146	Six diesel essential generators at the Terminal Expansion and one natural gas essential generator at the MP 1 Compressor station would be installed to serve as stand-by generators.	There will be seven not six generators at the Terminal.	Revise statement to: "***Seven** diesel essential generators at the Terminal Expansion and one natural gas essential generator at the MP 1 Compressor station would be installed to serve as stand-by generators.*"

22

AP1-61 The text in section 4.11.1.4 and associated information in tables 4.11.1-8 and 4.11.1-12 have been corrected.

AP1-62 The text in section 4.11.1.5 has been updated.

AP1-63 The text in section 4.11.1.5 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-64	64	Section 4.11.1.5 / Mitigation Measures	4-148	Golden Pass anticipates filing its minor NSR permit and Title V operating permit application for the MP 66 Compressor Station with the LDEQ in June 2017.	Golden Pass has updated the status of major permits, approvals, and consultations for the Project. See Attachment No. 4.	Revise statement to: "*Golden Pass anticipates filing its minor NSR permit and Title V operating permit application for the MP 66 Compressor Station with the LDEQ in June ~~2017~~ **2018**.*"
AP1-65	65	Section 4.12.1.5	4-193	Potential spills from the existing 36-inch-diameter ship loading header would be directed to the existing Tank Area Containment Sump.	Incorrect diameter listed, the existing ship loading system is comprised of two (qty) 30-inch lines.	Revise statement to: "*Potential spills from **one of** the existing **30**-inch-diameter ship loading header would be directed to the existing Tank Area Containment Sump.*"
AP1-66	66	Section 4.12.1.5	4-194	The Truck Loading LNG Spill Containment Sump would contain spills from LNG truck loading operations. Golden Pass designed this sump to hold 110 percent volume of one 8,000-gallon truck, totaling 8,800 gallons. The dimensions of the Truck Loading LNG Spill Containment Sump would be 10 feet by 10 feet with a depth of 15 feet under the trough intersection, which provides a usable sump capacity of 11,221 gallons. This sump would be adequately sized to contain a spill from a full LNG truck with an 8,000-gallon capacity.	In response to FERC's Condition 28 in the DEIS, Golden Pass filed to the FERC Docket on April 19, 2016 that "The Truck Loading LNG Spill Containment has been sized to contain the greatest volume of LNG in the area, which is a LNG truck with a capacity of 8,022 gallons (30 cubic meters [m3]). The current available truck capacities are estimated at 8,022 gallons. If capacities for available LNG trucks increase in the next phase of design work, the design will be updated accordingly and thermal modeling will be performed to ensure compliance."	Revise statement to: "*The Truck Loading LNG Spill Containment Sump would contain spills from LNG truck loading operations.* ***The Truck Loading LNG Spill Containment has been sized to contain the greatest volume of LNG in the area, which is a LNG truck with a capacity of 8,022 gallons (30 cubic meters [m3]). The current available truck capacities are estimated at 8,022 gallons.*** *The dimensions of the Truck Loading LNG Spill Containment Sump would be 10 feet by 10 feet with a depth of 15 feet under the trough intersection, which provides a usable sump capacity of 11,221 gallons.*"
AP1-67	67	Section 4.12.1-5 Table 4.12.1-3	4-195	Column 1 (Larges Sizing Spill Source), Row (36-inch Ship Loading Header)	Incorrect diameter listed, the loading line has a diameter of 30-inches.	Revise to: "***30**-inch Ship Loading Header*"
AP1-68	68	Section 4.12.1.7 Table 4.12.1-4	4-198	Column 6 (Total Vapor Flow Rate), Row 5 (LNG-52 Vertical Release)	Value of 1,886,541 is incorrect. It should be 1,886,620.	Revise to: ***1,886,620***

23

AP1-64 The text in section 4.11.1.3 has been updated with the new information.

AP1-65 The text in section 4.12.1.5 has been updated.

AP1-66 The text in section 4.12.1.5 has been updated.

AP1-67 Table 4.12.1-3 in section 4.12.1.5 has been updated.

AP1-68 Table 4.12.1-4 in section 4.12.1.7 has been updated.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-69	69	Section 4.12.1.7 / Flammable Vapor Dispersion Design Spill Analyses for LNG	4-203	• an LNG liquefaction rundown line at approximately 1,886,541 pounds per hour (lbs/hr);	The Gexcon modeling was a 1,886,539 lb/hr spill not 1,886,541.	Revise statement to: "• *an LNG liquefaction rundown line at approximately **1,886,539** pounds per hour (lbs/hr);*"
AP1-70	70	Section 4.12.1.7 Table 4.12.1-5	4-206	Column 5 (Liquid Rainout), Row 4 (MR-136)	Value of 0 is incorrect. It should be 17.	Revise to: ***17***
AP1-71	71	Section 4.12.1.7 Table 4.12.1-5	4-206	Column 6 (Total Vapor Flow Rate), Row 4 (MR-136)	Value of 806,444 is incorrect. It should be 748,700.	Revise to: ***748,700***
AP1-72	72	Section 4.12.1.7 / Flammable Vapor Dispersion Design Spill Analyses for Other Process Fluids	4-206	However, scenarios MR-127, MR-136, and MR-148 were not modeled for a 10 minute release duration. FERC staff re-modeled the scenarios for a 10 minute release duration, and the results indicated a 1 percent or less difference in dispersion distance, which would still remain within the facility property boundary.	Of note, the scenarios were originally modeled for 10 minutes. Golden Pass received a data request from PHMSA requesting that the project demonstrate how long the releases would take and those were the times left in the input files.	Revise statement to: "*FERC staff modeled scenarios MR-127, MR-136, and MR-148 for a 10 minute release duration, and the results indicated a 1 percent or less difference in dispersion distance, which would still remain within the facility property boundary.*"
AP1-73	73	Section 4.12.1.8 Table 4.12.1-7	4-211	Column titles: AEGL-1, AEGL-2, AEGL-3	All distances are to the ½ AEGL	Preferably the title of Table 4.12.1-7 is modified to include the bolded text: "*Maximum Distance to **One Half** the Acute Exposure Guideline Levels (in ppm) for 10 minute Exposures.*" Or alternatively a footnote is added that indicates all distances are to the one half AEGL.
AP1-74	74	Section 4.12.1.8 Table 4.12.1-7	4-211	Column 2 (AEGL-1), Row 2 (AM-33)	Value of 414 is incorrect. It should be 404.	Revise to: ***404***

24

AP1-69 The text in section 4.12.1.7 has been updated.

AP1-70 Table 4.12.1-5 in section 4.12.1.7 has been updated.

AP1-71 Table 4.12.1-5 in section 4.12.1.7 has been updated.

AP1-72 The text in section 4.12.1.7 has been updated.

AP1-73 Table 4.12.1-7 in section 4.12.1.8 has been updated.

AP1-74 Table 4.12.1-7 in section 4.12.1.8 has been updated.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
	Section 5 – Conclusions and Recommendations					
AP1-75	75	Section 5.1.6	5-4	To avoid and minimize potential impacts on migratory birds, Golden Pass would implement measures developed in consultation with the FWS, the TPWD, and the LDWF, including refraining from construction during sensitive time-windows for breeding birds.	Construction will be required year-round in some instances (e.g., Terminal Expansion). As noted in Section 4.6.2.1 (Migratory Birds), Golden Pass will conduct pre-construction surveys during the nesting season to identify unavoidable migratory bird habitat, such as rookeries and/or nesting colonies.	Revise statement to: "*To avoid and minimize potential impacts on migratory birds, Golden Pass would implement measures developed in consultation with the FWS, the TPWD, and the LDWF~~, including refraining from construction during sensitive time-windows for breeding birds~~.*"

25

AP1-75 The text in section 5.1.6 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-76	76	Section 5.2 Nos. 5 and 15	5-11, 5-13/14	5. The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets. As soon as they are available and before the start of construction, Golden Pass shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. 15. Golden Pass shall file the following information, stamped and sealed by the professional engineer-of-record in the state of Texas, with the Secretary prior to construction: a. site preparation drawings and specifications; b. LNG liquefaction facility structures and foundation design drawings and calculations (including prefabricated and field constructed structures); c. seismic specifications for procured equipment; and d. quality control procedures to be used for civil/structural design and construction. In addition, Golden Pass shall file, in its Implementation Plan, the schedule for producing this information.	Due to the extensive (multi-year) execution timeline for the Project, the Project expects to request approval (and execute) for numerous construction / commissioning work packages. The multi-year execution timeline stems from: 1) Site preparation (two year scope), field execution will be completed concurrently with the detailed engineering design. 2) Construction of the Supply Dock will commence as soon as possible after receipt of the FERC Order. The Supply Dock will be constructed almost 2 years before engineering is completed for the LNG Trains (and the subsequent LNG Train construction). 3) Staged execution of construction and commissioning is required to achieve safe, successful completion of scope for over 1000 pieces of equipment and 200 systems. As requested, Golden Pass will file an Implementation Plan which provides a schedule of how the phased information will be provided.	Several of the conditions (as currently worded) do not support a typical execution strategy. Golden Pass requests FERC to include a clarification in Section 5.2 that the information requested in the conditions shall **only be applicable for the requested work scope**. Information for work scopes not requested at the time would not be required to be provided prior to other work (e.g., site development at the GPX Terminal site could proceed before drawings of the pipeline expansion are final). Specific to No. 5 - Golden Pass will file the most updated version of the facility location at the start of construction. However, these drawings may be revised throughout engineering design, concurrent with initial construction. Revise statement to: "*The authorized facility locations shall be as shown in the EIS, as supplemented by filed alignment sheets. As soon as they are available and before the start of construction* ***of the applicable facility component****, Golden Pass shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order.*" Specific to No. 15 – The bullet items need to be decoupled, as they won't be provided all at one time. Construction work packages are expected to be completed in phases. Thus, the Project is expecting to receive multiple "approvals to construction". Revise statement to: "*Golden Pass shall file the following information, stamped and sealed by the professional engineer-of-record in the state of Texas, with the Secretary prior to construction* ***of the applicable facility component****:…*"

26

AP1-76 The text in section 5.2 has been clarified.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-77	77	Section 5.2 No. 10	5-13	Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities, Golden Pass shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).	With the initial site preparation and construction work activities expected to commence almost two years before engineering is fully complete, Golden Pass has elected to wait on submitting some permit applications until a later date. The Project will submit the final application during the engineering design stage to allow for the detailed design information to be included in the final permit. See Attachment No. 4.	Revise statement to: "*Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities, Golden Pass shall file with the Secretary documentation that it has received all applicable authorizations* ***for construction of the applicable work scope*** *required under federal law (or evidence of waiver thereof).*"
AP1-78	78	Section 5.2 No. 14	5-13	14. Prior to construction, Golden Pass shall file with the Secretary the results of geotechnical studies for the MP 33 and MP 66 Compressor Stations.	Construction activities for the GPX Terminal are expected to start before construction of the pipeline compressor stations. For clarification, Golden Pass requests that this Condition be re-written to state that it is applicable to only the pipeline compressor stations as opposed to "any" construction.	Revise statement to decouple the activities: "*Prior to* ***pipeline compressor station*** *construction, Golden Pass shall file with the Secretary the results of geotechnical studies for the MP 33 and MP 66 Compressor Stations.*"
AP1-79	79	Section 5.2 No. 40	5-17	Prior to initial site preparation, Golden Pass shall file additional layers of protection in the form of passive mitigation to mitigate the potential for an initiating event to develop into a BLEVE incident.	The layers of protection to mitigate a BLEVE incident will be further developed during the final engineering phases and is not connected to the start of site preparation. With site preparation expected to take two years to complete, Golden Pass plans to start site preparation as soon as possible (concurrent with the engineering phase).	Revise statement to: "***The final design shall include*** *additional layers of protection in the form of passive mitigation to mitigate the potential for an initiating event to develop into a BLEVE incident.*"

27

AP1-77 The text of section 5.2 has been clarified.

AP1-78 The text in section 5.2 has been clarified.

AP1-79 It would be appropriate to complete the analysis of passive mitigation before foundation locations are finalized, so that increased distance between plant features can be considered as an available passive measure for evaluation.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016)

	Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
AP1-80	80	Section 5.2 No. 81	5-20	Prior to commissioning, Golden Pass shall tag all equipment, instrumentation, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves.	Golden Pass's standard work process allows tagging of valves to be a mechanical completion punch list activity that must be completed within 60 days of in-service. As such, the Project requests that valves be separated from this condition.	Revise to be two conditions: "*81. Prior to commissioning, Golden Pass shall tag all equipment and instrumentation~~, and valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves~~.*" New. "***Prior to the in-service date**, Golden Pass shall tag all valves in the field, including drain valves, vent valves, main valves, and car-sealed or locked valves.*"
AP1-81	81	Section 5.2 No. 85	5-21	Prior to introduction of hazardous fluids, Golden Pass shall complete all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the Distributed Control System and the Safety Instrumented System that demonstrates full functionality and operability of the system.	These tests are included in Golden Pass' standard commissioning work process. The Project notes that equipment / systems will be commissioning in phases. For example - the nitrogen generation and distribution system will be commissioned well in advance of the LNG Train systems. As such, the Project requests clarification that this statement is applicable to only the equipment / systems that will be commissioned at the requested stage vs. applying to all of the 1000 pieces of equipment and 200 systems in the Project scope. The Project requests that FERC clarify that the Condition request is applicable to the "requested work scope"	Revise statement to: "*Prior to introduction of hazardous fluids, Golden Pass shall complete all pertinent tests (Factory Acceptance Tests, Site Acceptance Tests, Site Integration Tests) associated with the Distributed Control System and the Safety Instrumented System that demonstrates full functionality and operability of the system, **as the individual systems are scheduled for commissioning**.*"
AP1-82	**Appendices**					
	Proposed revisions to Appendix J related to the proposed footprint change of the MP 66 Compressor Station and TETCO Interconnect were submitted in the May 4, 2016 Response to DEIS Mitigation Measure No. 18. No additional revisions were identified.					

28

AP1-80 It would be prudent to tag all valves prior to commissioning, so that the safety of activities and operations occurring prior to commencement of service can benefit from efficient valve identification.

AP1-81 This is a standard wording that is used for all projects, including amendments that may not have more than one project system. However, for large-scale projects with multiple project work areas, separate approvals have been provided for scopes of work that have met all applicable conditions.

AP1-82 The graphics and associated text in the EIS have been updated with this new information.

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

AP1-83

Attachment No. 2

Suggested Revisions to DEIS Tables to Reflect Identified Corrections of the Project Footprint, Including Changes to the MP 66 Compressor Station Site Plan

Suggested revisions based on corrections are highlighted in yellow. Suggested revisions which have already been captured based on changes to the MP 66 Compressor Station Site Plan, previously submitted in the May 4, 2016 Response to DEIS Mitigation Measure No. 18 , are highlighted in blue. The following tables have been identified for revision based on the Project footprint:

- TABLE 2.3-1 Land Requirements for the Golden Pass LNG Export Project
- TABLE 4.4.2-1 Wetlands Affected by the Golden Pass LNG Export Project
- TABLE 4.5-1 Impacts of the Golden Pass LNG Export Project on Vegetation Cover Types
- TABLE 4.8.1-1 Land Uses Affected by the Golden Pass LNG Export Project

AP1-83 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

AP1-83 (cont.)

TABLE 2.3-1
Land Requirements for the Golden Pass LNG Export Project [a]

Facility	Land Affected during Construction (acres)	Land Affected during Operation (acres)
Terminal Expansion		
Terminal Expansion	894.5 (Blank)	746.8 (761.4)
Supply Dock	17.5 (18.0)	14.8
Access Road	6.6	6.6
Terminal Expansion Subtotal	918.6 (918.7)	768.2 (782.8)
Pipeline Expansion		
MP 1 Compressor Station and NGPL Interconnection	13.9 (14.2)	11.0
MP 33 Compressor Station and Texoma Interconnection	10.7	8.0
Tennessee Gas Interconnection (MP 63)	1.1	1.1
MP 66 Compressor Station and TETCO Interconnect	15.5 (15.8)	14.7 (15.0)
Transco Interconnection (MP 68.5)	3.0	0.8
Calcasieu Loop pipeline	23.5 (22.0)	12.8 (11.0)
Pipe Storage and Contractor Yards	13.0	0.0
Additional Temporary Workspace	11.1 (10.0)	0.0
Access roads	8.7 (8.6)	8.6 (8.5)
Pipeline Subtotal	100.5 (98.7)	57.0 (55.8)
Project Total	1,019.1 (1,017.4)	825.2 (838.4)

[a] Original values listed in parentheses, if suggested for revision

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-83 (cont.)

TABLE 4.4.2-1
Wetlands Affected by the Golden Pass LNG Export Project [a]

Project Component	PEM		PSS[b]		PFO		EEM		Total	
	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm
Terminal Expansion										
Terminal Expansion	377.7	368.9	1.2	1.2	0.4	0.4h	0.2	0.1	379.4	370.5
Access Roads	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
ATWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Terminal Expansion Subtotal	379.7	370.9	1.2	1.2	0.4	0.4h	0.2	0.1	381.4	372.5
Pipeline Expansion										
Calcasieu Loop	4.4	0.0 (2.0i)	0.1	0.0	0.1	0.0 (0.0i)	0.0	0.0	4.5	0.0 (2.0i)
Access Roads	0.0i	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0i	0.0
ATWS	0.0i	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0i	0.0
MP1 Compressor Station	7.3	7.3	0.0	0.0	0.0	0.0	0.0	0.0	7.3	7.3
Access Roads	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
ATWS	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
NGPL Interconnection	3.3	0.2 (1.3)	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.2 (1.3)
Access Roads	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-83 (cont.)

TABLE 4.4.2-1
Wetlands Affected by the Golden Pass LNG Export Project [a]

Project Component	PEM		PSS[b]		PFO		EEM		Total	
	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm
ATWS	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
MP 33 Compressor Station	0.3	0.3	0.0	0.0	0.0i	0.0i	0.0	0.0	0.3	0.3
Access Roads	0.0i	0.0i	0.0	0.0	0.0	0.0	0.0	0.0	0.0i	0.0i
ATWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Texoma Interconnection[j]	0.1	0.0 (0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0 (0.1)
Tennessee Gas Interconnection[k]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Access Roads	0.0i	0.0i	0.0	0.0	0.0	0.0	0.0	0.0	0.0i	0.0i
ATWS	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
MP 66 Compressor Station	0.0 (0.1)	0.0 (0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0 (0.1)	0.0 (0.1)
Access Roads	0.0 (0.0i)	0.0 (0.0i)	0.0 (0.0i)	0.0 (0.0i)	0.0	0.0	0.0	0.0	0.0 (0.0i)	0.0 (0.0i)
ATWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TETCO Interconnection[j]	0.1	0.0 (0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0 (0.1)
Transco Interconnection[j]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pipeline Expansion	16.7 (16.8)	7.9 (11.4)	0.1	0.0	0.1	0.0i	0.0	0.0	16.9 (17.0)	7.9 (11.4)

32

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-83 (cont.)

TABLE 4.4.2-1
Wetlands Affected by the Golden Pass LNG Export Project [a]

Project Component	PEM		PSS[b]		PFO		EEM		Total	
	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm
Subtotal										
Pipe Storage and Contractor Yard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	396.4 (396.5)	378.9 (382.3)	1.2	1.2	0.5	0.4	0.2	0.1	398.3 (398.4)	380.5 (383.9)

[a] Original values listed in parentheses
[b] There are no PSS wetlands affected by construction or operation of the MP 66 Compressor Station and TETCO interconnect

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

AP1-83 (cont.)

TABLE 4.5-1
Impacts of the Golden Pass LNG Export Project on Vegetation Cover Types[a]

Project Component	Agriculture		Pine Plantation		Wetlands		Upland Forest		Open Land		Total	
	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper
TERMINAL EXPANSION[b]												
Golden Pass Terminal	0.0	0.0	0.0	0.0	379.4	365.9 (370.5)	63.0	46.1 (58.7)	41.3	40.5 (40.7)	483.7	452.5 (469.9)
Terminal access roads	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0g	0.0g	2.0	2.0
Terminal Expansion Subtotal	0.0	0.0	0.0	0.0	381.4	367.9 (372.5)	63.0	46.1 (58.7)	41.3	40.5 (40.7)	485.7	454.5 (471.9)
PIPTELINE EXPANSION												
Jefferson County, TX												
MP 1 Compressor Station	0.0	0.0	0.0	0.0	7.9	7.3	0.8	0.8	0.1	0.1	8.8	8.2
NGPL Interconnect (MP 1)	0.0	0.0	0.0	0.0	3.5	0.2[f] (1.3)	0.0g (0.0)	0.0g (0.0)	0.0	0.0	3.5	0.2 (1.3)
MP 1 facilities access road	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Orange County, TX												
MP 33 Compressor Station	0.0	0.0	0.0	0.0	0.3	0.3	7.3	6.8	0.0	0.0	7.5	7.0
Texoma Interconnect (MP 33)	0.0	0.0	0.0	0.0	0.1	0.0[f] (0.1)	0.0g	0.0g	0.6	0.5	0.7	0.5 (0.6)
MP 33 facilities access road	0.0	0.0	0.0	0.0	0.0g	0.0g	1.7	1.7	0.5	0.5	2.2	2.2
Pipe storage and contractor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

34

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

AP1-83 (cont.)

TABLE 4.5-1
Impacts of the Golden Pass LNG Export Project on Vegetation Cover Types[a]

Project Component	Agriculture		Pine Plantation		Wetlands		Upland Forest		Open Land		Total	
	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper
yard												
Calcasieu Parish, LA												
Calcasieu Loop	9.8	4.6	0.7 (0.9)	0.0 (0.2)	0.8	0.0[c] (0.5)	1.6 (1.9)	0.1 (0.4)	8.3 (8.9)	4.8 (5.4)	21.2 22.3	9.5 (11.0)
Calcasieu Loop access road	0.0	0.0	0.0	0.0	0.0g	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Tennessee Gas Interconnect (MP 63)	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
MP 63 facility access road	0.0	0.0	0.0	0.0	0.0g	0.0g	0.0	0.0	0.0	0.0	0.0g	0.0g
MP 66 Compressor Station	0.0	0.0	19.3 (19.2)	14.3 (14.7)	0.0 (0.1)	0.0 (0.1)	0.0	0.0	0.0	0.0	19.3	14.3 (14.8)
TETCO Interconnect (MP 66)	0.0	0.0	0.2 (0.1)	0.2 (0.1)	0.1	0.0[c] (0.1)	0.0	0.0	0.0g	0.0g	0.3 (0.1)	0.2[c] (0.1)
MP 66 facilities Access Road	0.0	0.0	1.9	1.9	0.0[c] (0.0g)	0.0[c] (0.0g)	0.0	0.0	0.0	0.0	1.9	1.9
Transco Interconnect (MP 68)	0.0	0.0	0.3	0.0g	0.0	0.0	0.0	0.0	0.0g	0.0	0.4	0.0g
MP 68 facility access road	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0g	0.0g	0.0g	0.0g
Pipeline Expansion Subtotal	9.8	4.6	22.4 (22.5)	16.4 (16.9)	13.1 (13.2)	7.9 (9.8)	11.4 (11.6)	9.4 (9.6)	9.6 (10.2)	5.9 (6.5)	66.3 (67.3)	44.2 (47.3)

35

L-140

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-83 (cont.)

TABLE 4.5-1
Impacts of the Golden Pass LNG Export Project on Vegetation Cover Types[a]

Project Component	Agriculture		Pine Plantation		Wetlands		Upland Forest		Open Land		Total	
	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper
Total	9.8	4.6	22.4 (22.5)	16.4 (16.9)	394.5 (394.6)	375.8[c] (382.3)	74.4 (74.6)	55.5 (68.3)	50.9 (51.6)	46.4 (47.2)	552.0 (553.1)	498.7[c] (519.2)

[a] Original values listed in parentheses
[b] Operational areas include lands which will be part of the construction laydown areas that will remain in a gravel state following construction
[c] Following construction the wetlands within the permanent right-of-way of the pipeline and interconnect piping would be allowed to revegetate and return to pre-construction conditions
[d] There are no wetlands affected by the MP 66 Compressor Station and TETCO interconnect access road

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-83 (cont.)

TABLE 4.8.1-1
Land Uses Affected by the Golden Pass LNG Export Project[a]

County/Parish, State	Forested		Pine Plantation		Open Land		Open Water		Agriculture		Residential		Industrial /Commercial		Existing ROW		Total	
	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.
Terminal Expansion																		
Jefferson County, TX	63.4	46.5 (59.1)	0.0	0.0	420.3	408.0 (410.8)	177.4 (183.7)	67.8 (70.5)	0.0	0.0	0.0	0.0	265.3 (249.4)	241.8 (235.8)	0.0	0.0	912.4 (912.1)	761.0 (776.2)
Access Roads	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6	0.0	0.0	6.6	6.6
Terminal Expansion Subtotal	63.4	46.5 (59.1)	0.0	0.0	422.3	410.0 (412.8)	177.4 (183.7)	67.8 (70.5)	0.0	0.0	0.0	0.0	265.3 (249.2)	246.2 (240.4)	0.0	0.0	919.0 (918.7)	760.2 (782.8)
Pipeline Expansion																		
Calcasieu Loop	1.7 (2.0)	0.1 (0.4)	0.0 (0.2)	0.0 (0.2)	2.1 (2.3)	0.8 (1.5)	0.0g	0.0g	9.8	4.6	0.0	0.0	0.3 (0.4)	0.3	5.9	4.5	21.8 (22.6)	10.3 (11.2)
ATWS	0.0	0.0	0.7	0.0	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Access roads	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Pipe Storage and Contractor Yard																		
Orange County, TX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	12.0	0.0
MP 1 Compressor Station																		
Jefferson County, TX	0.0	0.0	0.0	0.0	7.4	7.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0	8.8	8.8
ATWS	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Access roads	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
MP 33 Compressor Station																		
Orange County, TX	6.8	6.8	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	7.0
ATWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Access roads	1.7	1.7	0.0	0.0	0.0g	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	2.0	2.0

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000 and CP14-518-000
Comments to Draft EIS

AP1-83 (cont.)

TABLE 4.8.1-1
Land Uses Affected by the Golden Pass LNG Export Project[a]

County/Parish, State	Forested		Pine Plantation		Open Land		Open Water		Agriculture		Residential		Industrial /Commercial		Existing ROW		Total	
	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper	Cons	Oper
MP 66 Compressor Station																		
Calcasieu Parish, LA	0.0	0.0	12.5 (14.7)	14.2 (14.7)	0.0 (0.1)	0.0 (0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5 (14.8)	14.2 (14.8)
ATWS	0.0	0.0	5.1 (4.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1 (4.6)	0.0 (0.0)
Access Roads	0.0	0.0	1.9	1.9	0.0 (0.0g)	0.0 (0.0g)	0.0 (0.0g)	0.0 (0.0g)	0.0	0.0	0.0	0.0	2.2 (2.1)	2.2 (2.1)	0.0	0.0	4.1 (4.0)	4.1 (4.0)
NGPL Interconnection																		
Jefferson County, TX	0.0	0.0	0.0	0.0	3.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	4.3	1.5
ATWS	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Texoma Interconnection																		
Orange County, TX	0.0g	0.0g	0.0	0.0	0.1	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.4	0.6	0.5	3.6	0.9
Access roads	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3
Tennessee Gas Interconnection																		
Calcasieu Parish, LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	1.1	1.1
ATWS	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	3.1	0.0
Access roads	0.0	0.0	0.0	0.0	0.0g	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0
TETCO Interconnection																		
Calcasieu Parish, LA	0.0	0.0	0.2 (0.1)	0.2 (0.1)	0.1 (0.1)	0.1 (0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.0g	0.0g	1.2 (1.1)	0.3 (0.2)
Transco Interconnection																		

38

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

AP1-83 (cont.)

TABLE 4.8.1-1
Land Uses Affected by the Golden Pass LNG Export Project[a]

County/Parish, State	Forested		Pine Plantation		Open Land		Open Water		Agriculture		Residential		Industrial /Commercial		Existing ROW		Total	
	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.
Calcasieu Parish, LA	0.0	0.0	0.0g	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.8	0.0	0.0	3.0	0.8
ATWS	0.0	0.0	0.3	0.0	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.8	0.0
Access roads	0.0	0.0	0.0	0.0	0.0g	0.0g	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1
Pipeline Expansion Subtotal	11.1 (11.7)	9.9 (9.9)	22.1 (22.5)	10.0 (10.0)	14.0 (15.4)	10.3 (10.7)	0.0g	0.0g	9.8	4.5	0.0	0.0	31.3)	8.3 (8.4)	8.0	6.5	97.5 (98.7)	54.1 (55.0)
TOTAL	24.3 (25.1)	10.7 (10.7)	22.4 (22.5)	10.0 (10.0)	43.0 (437.7)	418.1 (428.5)	177.4	67.5	9.8	4.5	0.0	0.0	288.6 (280.5)	254.5 (248.7)	8.0	6.5	1,075.2 (1,017.4)	922.8 (888.1)

[a] Original values listed in parentheses

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

AP1-84

Attachment No. 3

Suggested Revisions to Statistics Presented in the DEIS Text

Suggested revisions based on: (1) changes to the MP 66 Compressor Station Site Plan, which Golden Pass has previously submitted in the May 4, 2016 Response to DEIS Mitigation Measure No. 18, and (2) additional statistical changes, including revised Project totals, based on the changes identified to the DEIS tables presented in Attachment No. 2.

AP1-84 The text and tables throughout the EIS have been updated with the new acreage information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
Executive Summary					
1 – Stats	Pipeline Expansion	ES-2	Construction of the pipeline and associated facilities would affect a total of about 99 acres of land, with operation affecting a total of about 56 acres.	Affected by revisions related to Table 2.3-1. – Construction of the pipeline and associated facilities would affect a total of about 101 acres of land not 99. Operation of the pipeline associated facilities would affect 57 not 56 acres.	Revise statement to: "*Construction of the pipeline and associated facilities would affect a total of about **101** acres of land, with operation affecting a total of about **57** acres.*"
2 – Stats	Project Impacts	ES-3	Overall, construction of Project facilities would disturb about 1,017 acres of land and open water, and operation of the Project would disturb 828 acres.	Affected by revisions related to Table 2.3-1. Construction would disturb approximately 1,019 acres and operations 825 acres, instead of 1,017 and 828 acres, respectively	Revise statement to: "*Overall, construction of Project facilities would disturb about **1,019** acres of land and open water, and operation of the Project would disturb **825** acres.*"
3 – Stats	Project Impacts	ES-3/4	Construction of the Terminal Expansion would result in impacts on 918.7 acres of open land, industrial/commercial land, forested and non-forested wetlands, and open water; of which about 783 acres would be permanently impacted.	Affected by revisions related to Table 2.3-1. Operations would disturb approximately 768.2 acres instead of 783 acres.	Revise statement to: "*Construction of the Terminal Expansion would result in impacts on 918.7 acres of open land, industrial/commercial land, forested and non-forested wetlands, and open water; of which about **768** acres would be permanently impacted.*"
4 – Stats	Wetlands	ES-4	Construction and operation of the Pipeline Expansion would affect about 17.0 acres of wetlands, of which 11.4 acres would be permanently disturbed.	Affected by revisions related to Table 4.4.2-1. Construction would disturb approximately 16.9 acres instead of 17.0 acres. Permanent impacts for the Pipeline Expansion would be 7.9 acres instead of 11.4 acres.	Revise statement to: "*Construction and operation of the Pipeline Expansion would affect about **16.9** acres of wetlands, of which **7.9** acres would be permanently disturbed.*"
Section 1 - Introduction					
No identified revisions.					
Section 2 - Proposed Action					
5 – Stats	Section 2.3	2-15	The Project would disturb about 1,017 acres of land and open water for construction and 838 acres for operation.	Affected by revisions related to Table 2.3-1. Total construction would require about 1,019.1 acres of land and operations would require 825.2 acres instead of 838.4 acres.	Revise statement to: "*The Project would disturb about **1,019** acres of land and open water for construction and **825** acres for operation.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
6 – Stats	Section 2.3 2.3.1	2-15	Operation of the Terminal Expansion would permanently affect about 783 acres.	Affected by revisions related to Table 2.3-1. Operations for the Terminal Expansion would be 768.2 acres instead of 783 acres.	Revise statement to: "*Operation of the Terminal Expansion would permanently affect about **768** acres.*"
7 – Stats	Section 2.3.2	2-15	Construction of the Pipeline Expansion and associated facilities would affect a total of about 99 acres of land, with operation affecting a total of about 56 acres (about 11 acres for the permanent right-of- way for the pipeline and 44 acres for aboveground facilities).	Affected by revisions related to Table 2.3-1. Construction of the pipeline and associated facilities would affect a total of about 101 acres of land not 99. Operation of the pipeline associated facilities would affect 57 acres not 56 acres.	Revise statement to: "*Construction of the Pipeline Expansion and associated facilities would affect a total of about **101** acres of land, with operation affecting a total of about **57** acres (about **13** acres for the permanent right-of- way for the pipeline and 44 acres for aboveground facilities).*"
8 – Stats	Section 2.3.2.1 / Additional Temporary Workspace	2-18	Golden Pass would require about 10.0 acres of additional temporary workspace (ATWS) for construction at the compressor stations, wetland and waterbody crossings, and use of the horizontal directional drilling (HDD) method (described in section 2.6.3.1).	Affected by revisions related to Table 2.3-1. ATWS requirements would be 11.1 acres not 10 acres.	Revise statement to: "*Golden Pass would require about **11.1** acres of additional temporary workspace (ATWS) for construction at the compressor stations, wetland and waterbody crossings, and use of the horizontal directional drilling (HDD) method (described in section 2.6.3.1).*"
9 – Stats	Section 2.3.2.2	2-18	Construction of the aboveground facilities would affect a total of about 44.5 acres, of which 35.9 acres would be permanently affected during operation.	Affected by revisions related to Table 2.3-1. Operations would affect 35.6 acres instead of 35.9 acres.	Revise statement to: "*Construction of the aboveground facilities would affect a total of about 44.5 acres, of which **35.6** acres would be permanently affected during operation.*"
10 – Stats	Section 2.3.2.3	2-18	Golden Pass would use about 8.6 acres of access roads for construction of the pipeline, including both existing and new access roads. All but one of the access roads would be maintained for permanent access after construction, resulting in total impacts on 8.5 acres.	Affected by revisions related to Table 2.3-1. Access road construction would affect 8.7 acres instead of 8.6 acres. Permanent access after construction would affect 8.6 acres instead of 8.5 acres.	Revise statement to: "*Golden Pass would use about **8.7** acres of access roads for construction of the pipeline, including both existing and new access roads. All but one of the access roads would be maintained for permanent access after construction, resulting in total impacts on **8.6** acres.*"
Section 3 – Alternatives					
No identified revisions.					

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
Section 4 – Environmental Impact Analysis					
11 – Stats	Section 4.2.2.2	4-13	Construction of the compressor stations and other aboveground facilities would temporarily affect 37.7 acres of prime farmland soils, and operation would permanently affect 23.4 acres of prime farmland soils.	Statistics are primarily affected by the site plan changes to the MP 66 Compressor Station and TETCO Interconnect, submitted under separate cover. Additional differences were also noted. Temporary and permanent affects to prime farmland would be 38.0 acres and 23.2 acres instead of 37.7 acres and 23.4 acres, respectively.	Revise statement to: "*Construction of the compressor stations and other aboveground facilities would temporarily affect **38.0** acres of prime farmland soils, and operation would permanently affect **23.2** acres of prime farmland soils.*"
12 – Stats	Section 4.2.3.2	4-14	In total, 56.9 acres of hydric soils would be affected by construction of the aboveground facilities (compressor stations, interconnects, and access roads). Disturbance of these soils also could cause compaction and rutting. After construction, 41.4 acres of hydric soils would be permanently disturbed from the footprint of the compressor stations, interconnects, and access roads.	Statistics are primarily affected by the site plan changes to the MP 66 Compressor Station and TETCO Interconnect, submitted under separate cover. Additional differences were also noted. Temporary and permanent affects to hydric soils would be 63.8 acres and 43.5 acres instead of 56.9 acres and 41.4 acres, respectively.	Revise statement to: "*In total, **63.8** acres of hydric soils would be affected by construction of the aboveground facilities (compressor stations, interconnects, and access roads). Disturbance of these soils also could cause compaction and rutting. After construction, **43.5** acres of hydric soils would be permanently disturbed from the footprint of the compressor stations, interconnects, and access roads.*"
13 – Stats	Section 4.2.4.2	4-15	Approximately 56.9 acres of soils that would be disturbed by construction of the aboveground facilities (compressor stations and interconnects and access roads) have a high compaction potential. The pipe storage and contractor yard would affect 13.0 acres of soils with a high compaction potential, while ATWS would affect 3.6 acres of soils with a high compaction potential.	Statistics are primarily affected by the site plan changes to the MP 66 Compressor Station and TETCO Interconnect, submitted under separate cover. Additional differences were also noted. Construction would affect 63.5 acres of soils with high compaction potential instead of 59.9 acres. ATWS would affect 4.1 acres of soils with high compaction potential instead of 3.6 acres.	Revise statement to "*Approximately **63.5** acres of soils that would be disturbed by construction of the aboveground facilities (compressor stations and interconnects and access roads) have a high compaction potential.*" Revise statement to "*The pipe storage and contractor yard would affect 13.0 acres of soils with a high compaction potential, while ATWS would affect **4.1** acres of soils with a high compaction potential.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
14 – Stats	Section 4.2.6.2	4-17	Golden Pass would permanently affect all 31.4 acres disturbed during construction of the three compressor stations, 4.5 acres of the 13.1 acres disturbed during construction of the five interconnects, and 8.5 acres of the 8.6 acres of access roads used/upgraded during construction.	Statistics are affected by the site plan changes to the MP 86 Compressor Station and TETCO Interconnect, submitted under separate cover. Construction of the three compressor stations would permanently affect 29.9 acres instead on 31.4 acres. Construction of the interconnects would temporarily disturb 13.2 acres instead of 13.1 acres. Use of the access roads during construction would temporarily affect 8.7 acres instead of 8.6 acres, of which 8.6 acres instead of 8.5 acres would be permanent.	Revise statement to "*Golden Pass would permanently affect all **29.9** acres disturbed during construction of the three compressor stations, 4.5 acres of the **13.2** acres disturbed during construction of the five interconnects, and **8.6** acres of the **8.7** acres of access roads used/upgraded during construction.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
15 – Stats	Section 4.4.2.2 Pipeline Expansion	4-50	Construction of the Pipeline Expansion (i.e., the Calcasieu Loop, compressor stations, and interconnections) would require 43 wetland crossings, affecting 17.0 acres of wetlands. Of these impacts, 11.4 acres would be permanent filled. Construction at the compressor stations and interconnection sites would require 16 wetland crossings, which would affect 12.4 acres of wetlands. Of these impacts, 9.4 acres would be permanently filled to provide an adequate and safe area to conduct facility operations and to provide room for the addition of necessary infrastructure at the interconnection sites (e.g., condensate tanks, filter separators, and additional pipeline for bi-directional flow). Golden Pass has filed a draft compensatory mitigation plan for the wetland impacts at the MP 33 Compressor Station (see section 4.4.3). Impacts on wetlands from the MP 66 Compressor Station would result in a permanent loss of 0.1 acres.	Affected by revisions related to Table 4.4.2-1. The pipeline expansion would cross 42 instead of 43 wetlands, affecting 16.9 acres of wetlands instead of 17 acres. Permanent fill wold impact 7.9 acres of wetlands instead of 11.4 acres. The compressor stations and interconnect sites would require 15 instead of 16 wetland crossings, affecting 12.3 acres of wetlands instead of 12.4 acres. Permanent fill would affect 9.2 acres of wetlands instead of 9.4 acres.	Revise statement to: "*Construction of the Pipeline Expansion (i.e., the Calcasieu Loop, compressor stations, and interconnections) would require **42** wetland crossings, affecting **16.9** acres of wetlands. Of these impacts, **7.9** acres would be permanent filled. Construction at the compressor stations and interconnection sites would require **15** wetland crossings, which would affect **12.3** acres of wetlands. Of these impacts, **9.2** acres would be permanently filled to provide an adequate and safe area to conduct facility operations and to provide room for the addition of necessary infrastructure at the interconnection sites (e.g., condensate tanks, filter separators, and additional pipeline for bi-directional flow). Golden Pass has filed a draft compensatory mitigation plan for the wetland impacts at the MP 33 Compressor Station (see section 4.4.3). ~~Impacts on wetlands from the MP 66 Compressor Station would result in a permanent loss of 0.1 acres.~~*"
16 – Stats	Section 4.4.2.2 Pipeline Expansion	4-51	Construction of the Calcasieu Loop would require 27 wetland crossings, resulting in 4.6 acres of impacts (see table 4.4.2-1 and appendix J).	Affected by revisions related to Table 4.4.2-1. Construction of the Calcasieu Loop affect 4.5 acres of wetlands instead of 4.6 acres.	Revise statement to: "*Construction of the Calcasieu Loop would require 27 wetland crossings, resulting in **4.5** acres of impacts (see table 4.4.2-1 and appendix J).*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
17 – Stats	Section 4.4.2.2 Pipeline Expansion	4-51	Because 11.4 acres of wetlands would be permanently affected, we conclude that the adverse impacts on wetland resources associated with the Pipeline Expansion would be significant.	Affected by revisions related to Table 4.4.2-1. Permanent impacts for the Pipeline Expansion would be 7.9 acres of wetlands instead of 11.4 acres.	Revise statement to: "*Because **7.9** acres of wetlands would be permanently affected, we conclude that the adverse impacts on wetland resources associated with the Pipeline Expansion would be significant.*"
18 – Stats	Section 4.4.2.3	4-51	Project construction would affect 398.4 acres of wetlands (see table 4.1.1-3). Of these impacts, 396.5 acres would occur in palustrine emergent (PEM) wetlands, while the remaining impacts would affect 1.2, 0.5, and 0.2 acre of palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine emergent (EEM) wetlands, respectively. The majority of wetland impacts, 381.9 acres, would involve permanent conversion to industrial-use land in order to provide a safe and stable working surface during facility operations and to allow addition of necessary infrastructure.	Affected by revisions related to Table 4.4.2-1. Project-wide construction would temporarily affect 398.3 acres of wetlands instead of 398.4 acres, including 396.4 acres of PEM instead of 396.5 acres. Project-wide operations would permanently convert 380.5 acres of wetlands instead of 381.9 acres.	Revise statement to: "*Project construction would affect **398.3** acres of wetlands (see table 4.1.1-3). Of these impacts, **396.4** acres would occur in palustrine emergent (PEM) wetlands, while the remaining impacts would affect 1.2, 0.5, and 0.2 acre of palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine emergent (EEM) wetlands, respectively. The majority of wetland impacts, **380.5** acres, would involve permanent conversion to industrial-use land in order to provide a safe and stable working surface during facility operations and to allow addition of necessary infrastructure.*"
19 – Stats	Section 4.4.2.3	4-51	The remaining 16.5 acres of wetlands that would not be permanently filled (16.2 acres of PEM and about 0.1 acre each of PSS, PFO, and EEM), would be restored to pre-construction contours and allowed to revegetate in accordance with applicable federal and state permits and FERC's Procedures.	Affected by revisions related to Table 4.4.2-1. Temporary impacts would be to 17.8 acres of wetlands instead of 16.5 acres. The amount of PEM wetlands affected would be 17.6 acres instead of 16.2 acres. No PSS wetlands would be permanently affected.	Revise statement to: "*The remaining **17.8** acres of wetlands that would not be permanently filled (**17.5** acres of PEM and about 0.1 acre each of ~~PSS,~~ PFO, and EEM), would be restored to pre-construction contours and allowed to revegetate in accordance with applicable federal and state permits and FERC's Procedures.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
20 – Stats	Section 4.5.1	4-54	The Project would affect 1,017.4 acres of land, of which 553.1 acres are vegetated. Land cover types, such as open water and industrial lands, are discussed in more detail in sections 4.3 and 4.8, respectively. Field surveys of the Project area that were conducted in 2013 and 2014 identified five vegetation cover types: open land (i.e., non-forested uplands, including upland scrub-shrub, maintained utility right-of-way, and pasture), forested uplands, wetlands, silvicultural land, and agricultural land. The majority of the vegetated land that would be affected by the Project is wetlands (394.6 acres), followed by forested uplands (74.6 acres), open lands (51.6 acres), silvicultural lands (22.5 acres) and agricultural lands (9.8 acres).	Affected by revisions related to Tables 2.3-1 and 4.5-1. The Project would affect 1,019.1 acres of land instead of 1,017.4 acres. Of the total acreage affected, 551.3 acres instead of 553.1 acres would be vegetated. This includes 394.5, 74.4, 50.9, and 21.7 acres of wetlands, forested uplands, open lands, and silviculture instead of 374.6, 74.6, 51.6, and 22.5 acres, respectively.	Revise statement to: "*The Project would affect **1,019.1** acres of land, of which **551.3** acres are vegetated. Land cover types, such as open water and industrial lands, are discussed in more detail in sections 4.3 and 4.8, respectively. Field surveys of the Project area that were conducted in 2013 and 2014 identified five vegetation cover types: open land (i.e., non-forested uplands, including upland scrub-shrub, maintained utility right-of-way, and pasture), forested uplands, wetlands, silvicultural land, and agricultural land. The majority of the vegetated land that would be affected by the Project is wetlands (**394.5** acres), followed by forested uplands (**74.4** acres), open lands (**50.9** acres), silvicultural lands (**21.7** acres) and agricultural lands (9.8 acres).*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
21 – Stats	Section 4.5.1.2	4-58	Construction of the Pipeline Expansion and aboveground facilities (including all associated access roads and the ATWS) would disturb 67.3 acres of vegetated land. Of the 67.3 acres, 13.2 acres would be wetlands, 11.6 acres would be forested upland, 9.8 acres would be agricultural land, 10.2 acres would be open land, and 22.5 acres would be silvicultural land (see table 4.5-1). About 8.0 acres of the construction footprint would be within or adjacent to the existing Golden Pass Pipeline right-of-way. Operation of the Pipeline Expansion would permanently affect 47.3 acres of vegetated land: 16.9 acres of silvicultural land, 9.8 acres of wetlands, 9.6 acres of forested upland, 6.5 acres of open land, and 4.6 acres of agricultural land. About 5.5 acres of the operational footprint would be within the exiting right-of-way.	Affected by revisions related to Table 4.5-1. Construction of the Pipeline Expansion would affect 65.6 acres of vegetated land instead of 67.3 acres. This includes 13.1, 11.4, 9.6, and 21.7 acres of wetlands, forested uplands, open lands, and silviculture instead of 13.2, 11.6, 10.2, and 22.5 acres, respectively. Operations would affect 44.2 acres of vegetated land instead of 47.3 acres. This includes 16.4, 7.9, 9.4, and 5.9 acres of silviculture, wetlands, forested uplands, and open lands instead of 16.9, 9.8, 9.6, and 6.5 acres, respectively.	Revise statement to: "*Construction of the Pipeline Expansion and aboveground facilities (including all associated access roads and the ATWS) would disturb **65.6** acres of vegetated land. Of the **65.6** acres, **13.1** acres would be wetlands, **11.4** acres would be forested upland, 9.8 acres would be agricultural land, **9.6** acres would be open land, and **21.7** acres would be silvicultural land (see table 4.5-1). About 8.0 acres of the construction footprint would be within or adjacent to the existing Golden Pass Pipeline right-of-way. Operation of the Pipeline Expansion would permanently affect **44.2** acres of vegetated land: **16.4** acres of silvicultural land, **7.9** acres of wetlands, **9.4** acres of forested upland, **5.9** acres of open land, and 4.6 acres of agricultural land. About 5.5 acres of the operational footprint would be within the exiting right-of-way.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
22 – Stats	Section 4.5.1.2	4-58	Construction of the Calcasieu Loop (including the associated access road and the ATWS) would affect 22.5 acres of vegetated land. Golden Pass would reduce impacts on wetland vegetation by using an HDD for approximately 1.0 mile. Construction of the Calcasieu Loop would affect 9.8 acres of agricultural land, 9.0 acres of open land, 1.9 acres of forested upland, 0.9 acre of silvicultural land, and 0.8 acres of wetlands. Of the 22.5 acres, 11.0 acres of vegetated land would be permanently disturbed by Project operations, including 5.4 acres of impacts on open land, 2.0 acres of PEM wetlands, less than 0.1 acre of PFO wetlands, 0.4 acre of forested upland, and 0.2 acre of silvicultural land.	Affected by revisions related to Table 4.5-1. Construction and operation of the Calcasieu Loop would not impact any silviculture. Construction of the Calcasieu Loop would affect 22.4 acres instead of 22.5 acres of vegetated land. This includes 8.4 acres and 1.6 acres of open land and forested uplands instead of 9.0 acres and 1.9 acres, respectively. Operation of the Calcasieu Loop would affect 9.5 acres instead of 11.0 acres of vegetated land. This includes 4.8 acres and 0.1 acres of open land and forested uplands instead of 5.4 acres and 0.4 acres, respectively. Operation of the Calcasieu Loop would not affect any PEM wetlands that would revegetate within the permanent right-of-way.	Revise statement to: "*Construction of the Calcasieu Loop (including the associated access road and the ATWS) would affect **22.4** acres of vegetated land. Golden Pass would reduce impacts on wetland vegetation by using an HDD for approximately 1.0 mile. Construction of the Calcasieu Loop would affect 9.8 acres of agricultural land, **8.4** acres of open land, **1.6** acres of forested upland, ~~0.9 acre of silvicultural land~~, and 0.8 acres of wetlands. Of the **22.4** acres, **9.5** acres of vegetated land would be permanently disturbed by Project operations, including **4.8** acres of impacts on open land, ~~2.0 acres of PEM wetlands,~~ less than 0.1 acre of PFO wetlands, and **0.1** acre of forested upland~~, and 0.2 acre of silvicultural land~~.*"
23 – Stats	Section 4.5.1.2 / Compressor Stations and Interconnections	4-59	Construction of the compressor stations and interconnections (including access roads and the ATWS) would affect 44.9 acres of vegetated land. Table 4.5-1 provides the acreage of impacts for each compressor station and interconnection. Of the 44.9 affected acres, 1.2 acre is open land, 21.6 acres are silvicultural land, 12.4 acres are wetlands, and 9.7 acres are forested upland. Of the 44.9 affected acres, 36.3 acres of vegetated land would be permanently disturbed by Project operations. Operational impacts would include 1.1 acre of open land, 9.4 acres of wetlands, 16.7 acres of silvicultural land, and 9.2 acres of forested upland.	Affected by revisions related to Table 4.5-1. Construction of the compressor stations and interconnections would affect 45 acres instead of 44.9 acres of land. Of the 45 acres, 21.8 acres and 12.3 acres would be silviculture and wetlands instead of 21.6 acres and 12.4 acres, respectively. Operation of the compressor stations and interconnections would affect 35.9 acres instead of 36.3 acres of land. Of the 35.9 acres, 16.4 acres and 9.2 acres would be silviculture and wetlands instead of 16.7 acres and 19.4 acres, respectively.	Revise statement to: "*Construction of the compressor stations and interconnections (including access roads and the ATWS) would affect **45.0** acres of vegetated land. Table 4.5-1 provides the acreage of impacts for each compressor station and interconnection. Of the **45.0** affected acres, 1.2 acre is open land, **21.8** acres are silvicultural land, **12.3** acres are wetlands, and 9.7 acres are forested upland. Of the **45** affected acres, **35.9** acres of vegetated land would be permanently disturbed by Project operations. Operational impacts would include 1.1 acre of open land, **9.2** acres of wetlands, **16.4** acres of silvicultural land, and 9.2 acres of forested upland.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
24 – Stats	Section 4.5.1.2 / Additional Temporary Workspaces	4-59	The ATWS areas would affect 7.2 acres during construction, including 0.5 acre of upland forest, 1.1 acre of PEM wetlands, and 5.6 acres of pine plantation.	Affected by revisions related to Table 4.5-1. ATWS areas would affect 7.7 acres of vegetation instead of 7.2 acres during construction. Pine plantation would account for 6.1 acres instead of 5.6 acres.	Revise statement to: "*The ATWS areas would affect **7.7** acres during construction, including 0.5 acre of upland forest, 1.1 acre of PEM wetlands, and **6.1** acres of pine plantation.*"
25 – Stats	Section 4.6.1.2 / Wildlife Resources Impacts and Mitigation	4-62/63	Construction of the Pipeline Expansion would temporarily disturb 67.4 acres of wildlife habitat during construction, of which 47.3 acres would be permanently altered during operation for maintenance of the pipeline right-of-way and aboveground facilities, including the new pipeline, compressor stations, interconnections, and access roads (see table 4.5.1-1). A total of 16.9 and 9.6 acres of silviculture forest and upland forest, respectively, would be permanently affected by the Pipeline Expansion. In addition, 9.4 acres of PEM wetlands would be permanently converted to developed land for aboveground facilities.	Affected by revisions related to Tables 4.4.2-1 and 4.5-1. Construction of the Pipeline Expansion would temporarily disturb 65.6 acres of wildlife habitat during construction and 44.2 acres during operations instead of 67.4 acres and 47.3 acres, respectively. Permanent affects would be 16.4, 9.4, and 7.9 acres to silviculture, upland forest, and PEM wetlands instead of 16.9, 9.6, and 9.4 acres, respectively.	Revise statement to: "*Construction of the Pipeline Expansion would temporarily disturb **65.6** acres of wildlife habitat during construction, of which **44.2** acres would be permanently altered during operation for maintenance of the pipeline right-of-way and aboveground facilities, including the new pipeline, compressor stations, interconnections, and access roads (see table 4.5.1-1). A total of **16.4** and **9.4** acres of silviculture forest and upland forest, respectively, would be permanently affected by the Pipeline Expansion. In addition, **7.9** acres of PEM wetlands would be permanently converted to developed land for aboveground facilities.*"
26 – Stats	Section 4.8.1	4-88	Installation of facilities for the Terminal Expansion and Pipeline Expansion would require temporary disturbance of about 1,017.4 acres of land. After construction, operation of the Project would permanently affect about 838.4 acres. The remaining 178.9 acres would return to preconstruction conditions and uses.	Affected by revisions related to Table 4.8.1-1. Construction would require 1,019.1 acres instead of 1,017.4 acres. Operations would require 825.2 acres instead of 838.4 acres.	Revise statement to: "*Installation of facilities for the Terminal Expansion and Pipeline Expansion would require temporary disturbance of about **1,019.1** acres of land. After construction, operation of the Project would permanently affect about **825.2** acres. The remaining **194.2** acres would return to preconstruction conditions and uses.*"
27 – Stats	Section 4.8.1.1	4-92	Operation of the expanded terminal would require 782.8 of the 918.7 acres.	Affected by revisions related to Table 4.8.1-1. Operations for the Terminal Expansion would require 768.2 acres instead of 783 acres.	Revise statement to: "*Operation of the expanded terminal would require **768.2** of the 918.7 acres.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
28 – Stats	Section 4.8.1.2 / Pipeline	4-93	Golden Pass would require about 22.9 acres for construction of its pipeline (including ATWS and access roads). Of this amount, about 6.9 acres, or 30.1 percent, would be within existing rights-of-way.	Affected by revisions related to Table 4.8.1-1. Construction would require 24.4 acres instead of 22.9 acres. The amount within existing rights-or-way would be 28.3 percent instead of 30.1 percent.	Revise statement to: "*Golden Pass would require about **24.4** acres for construction of its pipeline (including ATWS and access roads). Of this amount, about 6.9 acres, or **28.3** percent, would be within existing rights-of-way.*"
29 – Stats	Section 4.8.1.2/ Pipeline	4-93	In total, the operational right-of-way would permanently affect about 11.2 acres.	Affected by revisions related to Table 4.8.1-1. The operational right-of-way would be 12.8 acres. Adjusting for the HDD not affecting existing land use, the operational right-of-way would affect 10.3 acres instead of 11.2 acres of current land use.	Revise statement to: "*In total, the operational right-of-way would permanently affect about **10.3** acres of **current land use**.*"
30 – Stats	Section 4.8.1.2 / Aboveground Facilities	4-93	The compressor station would require 19.3 acres for construction (including ATWS), of which 14.8 acres would be used during operation.	Affected by revisions related to Table 4.8.1-1. Construction and operation would affect 19.4 and 14.3 acres instead of 19.3 and 14.8 acres, respectively.	Revise statement to: "*The compressor station would require **19.4** acres for construction (including ATWS), of which **14.3** acres would be used during operation.*"
31 – Stats	Section 4.8.1.2/ Aboveground Facilities	4-93	The TETCO interconnection would require 1.1 acres during construction, of which 0.2 acre would be used during operation.	Affected by revisions related to Table 4.8.1-1. Construction and operation would affect 1.2 acres and 0.3 acres instead of 1.1 acres and 0.2 acres, respectively.	Revise statement to: "*The TETCO interconnection would require **1.2** acres during construction, of which **0.3** acre would be used during operation.*"
32 – Stats	Section 4.8.1.2/ Additional Temporary Workspace/ Staging	4-93	Golden Pass would need 10.6 acres of ATWS for construction of the pipeline and aboveground facilities.	Affected by revisions related to Table 4.8.1-1. ATWS would be 11.1 acres instead of 10.6 acres.	Revise statement to: "*Golden Pass would need **11.1** acres of ATWS for construction of the pipeline and aboveground facilities.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
33 – Stats	Section 4.8.1.3 / Pine Plantation	4-95	Golden Pass would not affect any pine plantation during construction of the Terminal Expansion. Golden Pass would clear about 22.5 acres of pine plantation during construction of the Pipeline Expansion. After construction, 5.6 acres within temporary workspaces would be available for planting and use in timber production. This would be a long-term impact due to the relatively long growth period required for marketable timber. Golden Pass would prohibit timber production within the permanent right-of-way, resulting in permanent removal of 16.9 acres of timber production.	Affected by revisions related to Table 4.8.1-1. Construction would affect 22.4 acres of pine plantation instead of 22.5 acres. Permanent removal of timber production would be 16.4 acres instead of 16.9 acres.	Revise statement to: "*Golden Pass would clear about **22.4** acres of pine plantation during construction of the Pipeline Expansion. After construction, **6.0** acres within temporary workspaces would be available for planting and use in timber production. This would be a long-term impact due to the relatively long growth period required for marketable timber. Golden Pass would prohibit timber production within the permanent right-of-way, resulting in permanent removal of **16.4** acres of timber production.*"
34 – Stats	Section 4.8.1.3 / Agriculture	4-96	The pipeline and associated facilities, including ATWS, access roads, pipe storage and the contractor yard, would affect about 68.8 acres of lands with soils classified as prime farmland.	Affected by revisions related to Table 2.3-1. Construction of the pipeline and associated facilities would affect a total of about 79.0 acres of prime farmland instead of 68.8 acres.	Revise statement to: "*The pipeline and associated facilities, including ATWS, access roads, pipe storage and the contractor yard, would affect about **79.0** acres of lands with soils classified as prime farmland.*"
35 – Stats	Section 4.8.2.2	4-96	Golden Pass would install all facilities associated with the Pipeline Expansion on privately owned lands, totaling 98.7 acres.	Affected by revisions related to Table 2.3-1. Construction of the pipeline and associated facilities would affect a total of about 100.5 acres of private lands instead of 98.7 acres.	Revise statement to: "*Golden Pass would install all facilities associated with the Pipeline Expansion on privately owned lands, totaling **100.5** acres.*"
36 – Stats	Section 4.13.2.4	4-244	Of the affected acreage, 9.4 acres would be permanently disturbed during operations of the aboveground facilities (all PEM wetlands). Almost all of the permanently disturbed wetland habitat (8.8 acres) would be at the MP 1 Compressor Station and NGPL Interconnection adjacent to the Terminal Expansion.	Affected by revisions related to Table 4.4.2-1. Permanent impacts for the Pipeline Expansion would be 7.9 acres instead of 9.4 acres. The permanently disturbed area for the MP 1 Compressor Station and NGPL Interconnection would be 7.6 acres instead of 8.8 acres.	Revise statement to: "*Of the affected acreage, **7.9** acres would be permanently disturbed during operations of the aboveground facilities (all PEM wetlands). Almost all of the permanently disturbed wetland habitat (**7.6** acres) would be at the MP 1 Compressor Station and NGPL Interconnection adjacent to the Terminal Expansion.*"

52

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-84 (cont.)

Golden Pass Products LNG Export Project
Comments on FERC's Draft Environmental Impact Statement (March 25, 2016) – Statistics Listed in the Text

Comment No.	DEIS Section No.	DEIS Page No.	Relevant Extract from the DEIS	Comment	Suggested Resolution
Section 5 – Conclusions and Recommendations					
37 – Stats	Section 5.1.2	5-2	Operation of the compressor stations and other aboveground facilities along the pipeline would permanently affect 23.4 acres of prime farmland but would not result in a significant reduction of usable prime farmland soils in the area.	Statistics are primarily affected by the site plan changes to the MP 66 Compressor Station and TETCO Interconnect, submitted under separate cover. Additional differences were also noted. Operation of the compressor stations would permanently affect 30.1 acres of prime farmland instead of 23.4 acres.	Revise statement to: "*Operation of the compressor stations and other aboveground facilities along the pipeline would permanently affect **30.1** acres of prime farmland but would not result in a significant reduction of usable prime farmland soils in the area.*"
38 – Stats	Section 5.1.4	5-3	Construction of the Pipeline Expansion would affect a total of about 17.0 acres of land classified as wetlands, of which 9.4 acres would be filled at the compressor station sites.	Affected by revisions related to Table 4.4.2-1. Construction of the Pipeline Expansion would affect 16.9 acres of wetlands instead of 17.0 acres. Permanent fill would be 7.9 acres instead of 9.4 acres.	Revise statement to: "*Construction of the Pipeline Expansion would affect a total of about **16.9** acres of land classified as wetlands, of which **7.9** acres would be filled at the compressor station sites.*"
39 – Stats	Section 5.1.5	5-3	About 26.5 acres of upland forest and silvicultural land (pine plantation) would be permanently affected along the pipeline route.	Affected by revisions related to Table 4.8.1-1. The pipeline route would permanently affect 25.4 acres of upland forest and silviculture instead of 26.5 acres.	Revise statement to: "*About **25.4** acres of upland forest and silvicultural land (pine plantation) would be permanently affected along the pipeline route.*"
40 – Stats	Section 5.1.8	5-6	Overall, the Pipeline Expansion would permanently disturb about 55.6 acres of land.	Affected by revisions related to Table 2.3-1. Operation of the Pipeline Expansion would require a permanent footprint of 57 acres instead of 55.6 acres of land.	Revise statement to: "*Overall, the Pipeline Expansion would permanently disturb about **57** acres of land.*"
41 – Stats	Section 5.1.9	5-6	The Pipeline Expansion would result in minor, long-term, and permanent impacts on local forestry economics, as construction would result in the loss of about 16.9 acres of pine plantation for the life of the Project.	Affected by revisions related to Table 4.8.1-1. The Pipeline Expansion would permanently affect 16.2 acres of silviculture instead of 16.9 acres.	Revise statement to: "*The Pipeline Expansion would result in minor, long-term, and permanent impacts on local forestry economics, as construction would result in the loss of about **16.2** acres of pine plantation for the life of the Project.*"

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

AP1-85

Attachment No. 4

Update to Table 1.5-1 – Major Permits, Approvals, and Consultations for the Golden Pass LNG Export Project

AP1-85 The text and tables throughout the EIS have been updated with the new permit status information provided by Golden Pass.

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-85 (cont.)

TABLE 1.5-1
Major Permits, Approvals , and Consultations for the Golden Pass LNG Export Project

Agency	Permit/Approval/Consultation	Status	
		Terminal Expansion	Pipeline Expansion
Federal			
Federal Aviation Administration	Notification of Proposed Construction or Alteration	Anticipated notification first or second quarter or 2016	Not applicable
FERC	Authorization under Section 3 of the NGA	Application filed July 7, 2014	Not applicable
	Certification under Section 7 of the NGA	Not applicable	Application filed July 7, 2014
NOAA Fisheries	Section 7 of ESA consultation	Consultation ongoing	Not applicable
	Marine Mammal Protection Act consultation	Consultation ongoing	Not applicable
	Fish and Wildlife Coordination Act consultation	Consultation ongoing	Not applicable
	MSFCMA	Consultation ongoing	Not applicable
COE, Galveston, TX District	CWA Section 404 Permit	Application filed July 7, 2014	Application filed July 7, 2014
	Rivers and Harbors Act Section 10 Permit	Application filed July 7, 2014	Not applicable
COE, New Orleans, LA District	CWA Section 404 Nationwide 12 Permit	Not applicable	Anticipated application submittal in second quarter of 2017
Coast Guard	33 CFR 127; 2004 Interagency Agreement (NVIC 05-08) LOR	Letter received from Coast Guard on May 13, 2013, stating that existing LOR is still applicable	Not applicable
	Section 422 of the American Practicable Navigator Local Notice to Mariners	Occurs prior to initiation of dredging or construction activities that will affect marine navigation	Not applicable
DOE	Authorization to Export Liquefied Natural Gas to Free Trade Agreement Countries	Authorization granted September 27, 2012 (DOE/FE Order No. 3147)	Not applicable
	Authorization to Export Liquefied Natural Gas to Non-Free Trade Agreement Countries	Application submitted October 2012 and is currently under review	Not applicable
EPA	CWA Section 402 Industrial Stormwater Permit	Anticipated submittal in 2018	Anticipated submittal in 2018
	CWA Section 402 Process Wastewater Permit	Anticipated submittal in 2018	Not applicable
	CWA Section 402 Construction General Permit Notification	Anticipated electronic notice submittal in 2017	Anticipated electronic notice submittal in 2017

APPLICANT

AP1 – Golden Pass Products (cont'd)

AP1-85 (cont.)

TABLE 1.5-1
Major Permits, Approvals , and Consultations for the Golden Pass LNG Export Project

Agency	Permit/Approval/Consultation	Status	
		Terminal Expansion	Pipeline Expansion
FWS	Section 7 of ESA Consultation	Informal consultation ongoing	Informal consultation ongoing
	Migratory Bird Treaty Act Consultation	Informal consultation ongoing	Informal consultation ongoing
	Fish and Wildlife Coordination Act Consultation	Informal consultation ongoing	Informal consultation ongoing
DOT	49 CFR 192 Consultation (standards for natural gas pipelines)	Not applicable	Informal consultation ongoing
	49 CFR 193 Consultation (Standards for LNG facilities)	Informal consultation ongoing	Not applicable
State – Texas			
TCEQ Air Quality Division	New Source Review (NSR) Pre-construction Air Permit for Construction Emissions PSD Standard Permit	PSD permit issued January 16, 2015, for Terminal Expansion	PSD Permit issued January 16, 2015 for MP 1 Compressor Station
	Prevention of Significant Deterioration (PSD Permit) from Greenhouse Gas emissions	PSD Permit issued September 11, 2015	PSD Permit issued September 11, 2015 for MP 1 Compressor Station
	Operation emissions (Title V) for Stationary Sources Permit	Anticipated application submittal in 2019	Anticipated application submittal in 2019
TCEQ, Water Quality Division	Texas Water Code Section 11.138 Temporary Water Use Appropriations Permit	Anticipated application submittal in 2017	Not applicable
TPWD	Threatened and Endangered Species Consultation	Consultation ongoing	Consultation ongoing
	Surface Use Agreement to conduct marsh restoration activities	Anticipated application submittal in fourth quarter 2016	Not applicable
Texas Historical Commission State Historic Preservation Office	NHPA Section 106 Consultation	Consultation concurrence received August 2013 for Terminal Facilities; received April 2014 for Supply Dock	Consultation concurrence received March 2014 for Orange County compressor station
Railroad Commission of Texas	Hydrostatic Test Water Discharge Permit	Anticipated application submittal in 2018	Anticipated application submittal in 2018
	Texas Natural Resource Code Section 91.101 and Texas Water Code Section 26.131 Water Quality Certification	Application submitted July 7, 2014; revised January 13, 2016	Application submitted July 7, 2014; revised January 13, 2016
Railroad Commission of Texas and Texas General Land Office	CZMA Section 307 Application for Determination of Consistency with the Texas Coastal Management Program	Application submitted January 13, 2016	Application submitted January 13, 2016

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products
Golden Pass Pipeline

AP1-85 (cont.)

TABLE 1.5-1
Major Permits, Approvals , and Consultations for the Golden Pass LNG Export Project

Agency	Permit/Approval/Consultation	Status	
		Terminal Expansion	Pipeline Expansion
State - Louisiana			
Louisiana Department of Environmental Quality (LDEQ), Air Quality Division	Title V and PSD Permits	Not applicable	Anticipated application submittal in 2018
LDEQ, Water Quality Division	Section 401 Water Quality Certification and Stormwater General Permit; Hydrostatic Test Water Discharge Permit	Not applicable	Anticipated application submittal in 2017
Louisiana Department of Wildlife and Fisheries	ESA consultation	Not applicable	Consultation ongoing
Louisiana Department of Culture, Recreation, and Tourism, Division of Archaeology	NHPA Section 106 consultation	Not applicable	Consultation concurrence received December 2013 for pipeline facilities; received March 2014 for Calcasieu Parish compressor station
Louisiana Office of State Fire Marshall	RS 23:531-545 Boiler Inspection	Not applicable	Inspection anticipated to take place in 2019
Local - Parish			
Calcasieu Parish Police Jury	Building Permit	Not applicable	Anticipated application submittal in 2019

APPLICANT

AP1 – Golden Pass Products (cont'd)

20160516-5245 FERC PDF (Unofficial) 5/16/2016 12:49:01 PM

AP1-86

Attachment No. 5

Commission Docket CP14-517 - Accession No. 20160114-5171 (January 14, 2016)

See DEIS Comment Matrix, Comments 12, 13 and 48

AP1-86 See our responses to comments AP1-12, AP1-13, and AP1-48.

APPLICANT

AP1 – Golden Pass Products (cont'd)

Golden Pass Products

January 14, 2016

AP1-86 (cont.)

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

Re: OPE/DG2E/Gas Branch 2
Golden Pass Products LLC and Golden Pass Pipeline LLC
Docket Nos. CP14-517-000 and CP14-518-000
§ 375.308(x)
Environmental and Engineering Data Request

Dear Ms. Bose:

By letter dated September 10, 2015, the Federal Energy Regulatory Commission ("Commission") issued to Golden Pass Products LLC ("GPP") and Golden Pass Pipeline LLC ("GPPL"), collectively referred to as "Golden Pass," certain environmental and engineering data requests in the above proceedings. Golden Pass has filed complete responses to these requests.

Golden Pass is hereby submitting a supplemental response to **Resource Report Nos. 11 and 13 - Reliability and Safety** - Request No. 20

Should you have any questions about this matter, please contact Mr. Mark Burley (832) 624-3852.

Respectfully submitted,

Richard D. Smith
Senior Regulatory Affairs Consultant
Golden Pass Products LLC
Golden Pass Pipeline LLC

cc: Service List, Docket Nos. CP14-517-000 and CP14-518-000
Anthony E. Howard, FERC Staff

Three Allen Center • 333 Clay Street • Suite 802 • Houston, TX 77002 • Tel: 713-860-6361 • Fax: 713-860-6344

APPLICANT

AP1 – Golden Pass Products (cont'd)

PUBLIC
Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000
Response to FERC Information Request dated September 10, 2015

AP1-86 (cont.)

Resource Report No. 11 – Reliability and Safety; and No. 13 – LNG Engineering

20. The text associated with the "Proposed Plot Plan and Land Acquisition" drawing, filed on June 3, 2015, may indicate that Golden Pass does not currently have control of the proposed property extension. Explain the current status of the property acquisition and how control of the property would be assured to meet the exclusion zone requirements in 49 CFR 193.

RESPONSE:
On December 29, 2015, Golden Pass Products signed an Option Agreement to purchase the 281 acre property extension in order to comply with 49 CFR 193.

Response Provided By: Mark Burley
Affiliation: ExxonMobil Development Company
Title: Project Safety, Regulatory and Environment Manager – Golden Pass Products LNG Export Project
Phone No.: (832) 624-3852
Date: January 4, 2016

1

APPLICANT

AP1 – Golden Pass Products (cont'd)

PUBLIC
Golden Pass Products
Golden Pass Pipeline

Golden Pass Products LNG Export Project (GPX Project)
Golden Pass Products LLC ("GPP") and
Golden Pass Pipeline LLC ("GPPL")
FERC Docket Nos. CP14-517-000
Response to FERC Information Request dated September 10, 2015

End of Filing

Last Page of Submittal

Applicant Comments

APPLICANT

AP1 – Golden Pass Products (cont'd)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Houston, Texas this 14th day of January, 2016.

Richard D. Smith
Senior Regulatory Affairs Consultant
Golden Pass Products LLC
Golden Pass Pipeline LLC
Three Allen Center
333 Clay Street, Suite 802
Houston, Texas 77002
Phone: 713.860.6348

APPLICANT

AP1 – Golden Pass Products (cont'd)

The State of Texas)
) SS:
County of Harris)

AFFIDAVIT

I, the undersigned, Mark J. Burley, being first duly sworn, hereby state that I am the Safety, Environment & Regulatory Manager for the Golden Pass Products LNG Export Project, and on behalf of Golden Pass Products LLC and Golden Pass Pipeline LLC, that I have prepared or coordinated the preparation of Comments on the Federal Energy Regulatory Commission's March 25, 2016 Draft Environmental Impact Statement in Docket Nos. CP14-517-000 and CP14-518-000, that I am familiar with said response, and that the information contained therein is true and correct to the best of my knowledge, information and belief.

Mark J. Burley

Subscribed and sworn before me on the 12th day of May, 2016

KIMBERLY D. LANTRIP
Notary Public, State of Texas
Comm. Expires 04-06-2020
Notary ID 8289498

Notary

Notary Commission Expires 04-06-2020

APPLICANT

AP1 – Golden Pass Products (cont'd)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Houston, Texas this 16th day of May, 2016.

Richard D. Smith

Richard D. Smith
Senior Regulatory Affairs Consultant
Golden Pass Products LLC
Golden Pass Pipeline LLC
Three Allen Center
333 Clay Street, Suite 802
Houston, Texas 77002
Phone: 713.860.6348

APPENDIX M
Keyword Index

KEYWORD INDEX

24-hour equivalent sound level ($L_{eq(24)}$) 4-151, 4-153, 4-154, 4-156

aboveground facilities ES-2, ES-6, 2-13, 2-14, 2-15, 2-18, 2-27, 2-32, 2-33, 2-37, 3-1, 3-25, 3-26, 4-3, 4-4, 4-6, 4-9, 4-13, 4-14, 4-15, 4-17, 4-27, 4-38, 4-40, 4-41, 4-42, 4-43, 4-44, 4-45, 4-46, 4-62, 4-63, 4-94, 4-98, 4-112, 4-113, 4-227, 4-242, 4-245, 4-251, 5-2, 5-9

access roads 2-11, 2-12, 2-13, 2-15, 2-18, 2-22, 2-32, 2-33, 3-26, 4-3, 4-13, 4-14, 4-15, 4-16, 4-17, 4-29, 4-33, 4-37, 4-42, 4-46, 4-48, 4-50, 4-55, 4-56, 4-58, 4-59, 4-60, 4-62, 4-83, 4-89, 4-93, 4-94, 4-96, 4-97, 4-114, 4-116, 4-142, 5-5, 5-6, 5-7, 5-11, 5-14

additional temporary workspaces (ATWS) 2-18, 2-25, 2-28, 2-33, 4-13, 4-15, 4-16, 4-17, 4-46, 4-49, 4-50, 4-57, 4-58, 4-59, 4-90, 4-91, 4-93, 4-94, 4-95, 4-96, 4-97, 4-114, 4-243

Advisory Council on Historic Preservation (ACHP) 1-15, 4-114

agricultural land ES-4, 2-25, 2-32, 3-26, 3-29, 4-17, 4-54, 4-58, 4-62, 4-63, 4-92, 4-96, 5-3, 5-6

agriculture ES-6, 2-32, 4-13, 4-29, 4-57, 4-238, 4-253, 5-4

air dispersion modeling 4-143, 4-250

air quality ES-3, ES-4, ES-5, 1-3, 1-9, 1-16, 3-26, 4-120, 4-123, 4-126, 4-127, 4-134, 4-135, 4-138, 4-143, 4-144, 4-145, 4-148, 4-149, 4-150, 4-237, 4-249, 4-250, 4-251, 4-252, 5-7

Air Quality Control Region (AQCR) 4-120

alternative ES-6, ES-7, 2-19, 2-28, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-20, 3-22, 3-23, 3-24, 3-25, 3-26, 3-29, 3-30, 4-21, 4-23, 4-94, 4-141, 4-142, 4-143, 4-148, 4-184, 4-194, 4-198, 5-9, 5-10, 5-14

Alternative Power Sources 3-24

Alternative Terminal Configurations 3-23

ambient 2-7, 4-35, 4-69, 4-77, 4-120, 4-122, 4-134, 4-144, 4-145, 4-150, 4-151, 4-154, 4-159, 4-163, 4-167, 4-169, 4-170, 4-173, 4-174, 4-199, 4-214, 4-222, 4-240, 4-252

American alligator 4-79, 4-80, 4-81, 4-82, 4-244, 5-5

amines ES-2, 1-1, 4-99, 4-172, 4-173, 4-182, 4-222

Annova LNG Common Infrastructure, LLC 3-8, 3-15

aquifers 4-7, 4-22, 4-23, 4-24, 4-25, 4-27, 4-28, 4-239, 4-254, 5-2

Atlantic hawksbill sea turtle 4-81, 4-82, 5-5

attainment ES-5, 4-120, 4-123, 4-129, 4-146, 4-249, 4-250, 4-252, 5-7

backfill 2-25, 2-26, 2-27, 2-28, 2-32

balast water 2-34, 4-35, 4-71, 4-72, 4-78, 4-239, 4-241

Bald and Golden Eagle Protection Act 4-64, 4-66

bald eagle 4-66, 4-67, 4-84, 4-244

barges 2-8, 2-9, 2-11, 2-21, 2-22, 2-23, 2-34, 2-37, 2-38, 3-12, 3-17, 3-20, 3-22, 4-24, 4-37, 4-39, 4-69, 4-71, 4-76, 4-77, 4-97, 4-98, 4-99, 4-110, 4-134, 4-159, 4-160, 4-236, 4-240, 4-241, 4-246, 4-248, 5-5, 5-6

bedrock 4-3

benthic 4-67, 4-69, 4-70, 4-71, 4-72, 4-76, 4-77, 4-78, 4-243

benthic community 4-69, 4-70, 4-76, 4-243

benthic habitat 4-72

best available control technology (BACT) 4-124, 4-127, 4-148, 4-149, 4-250, 4-253, 4-254, 5-7

best management practices (BMP) 2-32, 4-25, 4-27, 4-38, 4-69, 4-70, 4-140

Biological Assessment (BA) 1-15, 4-79, 4-156

Bird Conservation Region (BCR) 4-66

Birds of Conservation Concern (BCC) 4-66

blasting 2-25, 4-3, 4-238

Boiling-liquid-expanding-vapor explosion (BLEVE) 4-179, 4-180, 4-224, 4-225, 5-16

bottomland forest 4-86, 4-88

brackish 4-22, 4-25, 4-86, 4-87, 4-98

brown shrimp 4-74, 4-75, 4-76, 4-78

Calcasieu Parish ES-2, 1-1, 1-14, 2-1, 2-6, 2-13, 2-32, 3-9, 3-16, 4-1, 4-9, 4-12, 4-22, 4-23, 4-24, 4-28, 4-29, 4-31, 4-33, 4-53, 4-55, 4-56, 4-88, 4-91, 4-93, 4-101, 4-102, 4-103, 4-104, 4-105, 4-107, 4-108, 4-109, 4-112, 4-113, 4-117, 4-119, 4-120, 4-121, 4-122, 4-132, 4-153, 4-234, 4-235, 4-244, 4-246, 4-247, 4-248, 4-249, 4-256

Calcasieu Ship Channel 3-4, 3-10, 3-11, 3-14, 3-16, 3-17

Cameron LNG, LLC 3-4, 4-145, 4-234

Cameron Parish 3-4, 3-6, 3-10, 3-13, 3-14, 3-16, 3-17, 4-113, 4-234, 4-235

carbon capture and storage 4-254

carbon dioxide (CO_2) 1-1, 2-6, 2-7, 2-35, 3-24, 4-119, 4-123, 4-124, 4-125, 4-126, 4-129, 4-130, 4-132, 4-133, 4-135, 4-136, 4-137, 4-139, 4-140, 4-172, 4-254

carbon monoxide (CO) 4-118, 4-119, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-130, 4-132, 4-133, 4-135, 4-136, 4-137, 4-139, 4-140, 4-143, 4-144, 4-148, 4-149, 4-150, 4-250, 4-251

cathodic protection 2-27, 2-32, 2-37, 4-230

CE FLNG Project 3-8, 3-10

Certificate of Public Convenience and Necessity (Certificate) 1-2, 1-3, 1-4, 1-10, 2-18

Chicot Aquifer 4-22, 4-23, 4-24, 4-25, 4-27, 4-28, 5-2

Clean Air Act (CAA) 1-6, 1-12, 1-16, 4-118, 4-120, 4-125, 4-126, 4-128, 4-129

Clean Water Act (CWA) 1-4, 1-6, 1-12, 1-13, 1-15, 4-30, 4-31, 4-46, 4-69

climate change 4-252, 4-253, 4-255

Coastal Zone Management Act of 1972 (CZMA) 1-4, 1-12, 1-14, 1-15, 4-46, 4-101

Coastal Zone Management Program (CZMP) 5-5

Code of Federal Regulations (CFR).....ES-1, 1-4, 1-5, 1-6, 1-12, 1-13, 1-15, 2-7, 2-23, 2-25, 2-26, 2-27, 2-32, 2-34, 2-36, 2-37, 3-1, 3-23, 4-6, 4-10, 4-11, 4-30, 4-35, 4-45, 4-114, 4-118, 4-119, 4-120, 4-122, 4-126, 4-127, 4-128, 4-129, 4-130, 4-131, 4-132, 4-133, 4-137, 4-144, 4-145, 4-148, 4-149, 4-150, 4-171, 4-172, 4-174, 4-175, 4-181, 4-182, 4-183, 4-184, 4-185, 4-186, 4-188, 4-192, 4-193, 4-194, 4-197, 4-198, 4-200, 4-204, 4-210, 4-211, 4-213, 4-214, 4-221, 4-222, 4-225, 4-226, 4-227, 4-228, 4-229, 4-241, 5-1, 5-8, 5-9, 5-15, 5-17, 5-18

collocation.....4-54, 4-60, 4-88, 5-3

commissioning 2-9, 2-21, 2-34, 2-36, 4-183, 4-185, 4-186, 4-188, 4-189, 4-191, 4-226, 5-15, 5-19, 5-20

compaction.....2-32, 4-7, 4-10, 4-12, 4-14, 4-15, 4-27, 4-45, 4-52, 4-96, 5-1

compensatory mitigation plan..... ES-4, ES-7, 4-51, 4-74, 5-3

compressor station ES-1, ES-2, ES-3, ES-5, ES-6, ES-7, 1-1, 1-2, 1-7, 1-14, 2-13, 2-14, 2-18, 2-32, 2-33, 3-1, 3-4, 3-13, 3-14, 3-15, 3-25, 3-26, 3-29, 3-30, 4-1, 4-5, 4-7, 4-8, 4-13, 4-14, 4-15, 4-16, 4-17, 4-28, 4-38, 4-41, 4-42, 4-43, 4-44, 4-51, 4-58, 4-59, 4-62, 4-93, 4-94, 4-97, 4-98, 4-100, 4-101, 4-113, 4-114, 4-115, 4-131, 4-133, 4-149, 4-161, 4-167, 4-168, 4-169, 4-170, 4-180, 4-235, 4-236, 4-251, 4-252, 4-255, 5-2, 5-3, 5-6, 5-7, 5-8, 5-9, 5-10, 5-13

conclusions..... 1-4, 1-11, 4-18, 4-46, 4-197, 5-1

condensate.....ES-2, 1-2, 1-11, 2-6, 2-7, 2-8, 4-51, 4-110, 4-128, 4-148, 4-149, 4-173, 4-174, 4-175, 4-182, 4-188, 4-190, 4-195, 4-206, 4-211, 4-213, 4-215, 4-223, 5-17, 5-18, 5-21

consistency determination.....4-101

construction right-of-way..... ES-4, 2-15, 2-16, 2-25, 2-26, 2-27, 2-28, 2-32, 4-17, 4-24, 4-28, 4-40, 4-42, 4-46, 4-52, 4-58, 4-63, 4-93, 4-96, 4-100, 4-243, 5-4

containment..... 2-1, 2-7, 2-8, 2-34, 2-35, 3-11, 3-12, 4-173, 4-174, 4-181, 4-188, 4-193, 4-194, 4-196, 4-221, 4-224, 5-18

contaminated.....1-8, 2-9, 4-17, 4-25, 4-32, 4-33, 5-2

contamination 3-25, 4-12, 4-17, 4-24, 4-27, 4-30, 4-32, 4-33, 4-34

contractor yard 2-13, 2-15, 2-18, 2-33, 3-1, 3-29, 4-3, 4-13, 4-15, 4-16, 4-17, 4-29, 4-33, 4-45, 4-47, 4-59, 4-94, 4-96, 4-114, 5-4, 5-7

Corpus Christi Liquefaction Project 3-8

critical habitat.....1-8, 1-15, 4-79, 4-242

crossings..... 1-15, 2-12, 2-27, 2-28, 2-31, 2-32, 3-20, 4-29, 4-31, 4-33, 4-37, 4-47, 4-48, 4-52, 4-72, 4-97

cultural resources ES-3, ES-7, 1-3, 1-15, 3-25, 4-114, 4-115, 4-116, 4-117, 4-249, 5-11

cumulative impact area 4-237, 4-238, 4-239, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-248, 4-249, 4-251, 4-252, 4-255, 5-9

cumulative impacts ES-3, ES-4, ES-6, 1-3, 1-11, 4-110, 4-150, 4-233, 4-237, 4-238, 4-239, 4-240, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-248, 4-249, 4-250, 4-251, 4-252, 4-253, 4-255, 4-256, 5-9

day-night sound level (L_{dn}) ES-5, ES-6, 4-151, 4-152, 4-153, 4-154, 4-156, 4-159, 4-160, 4-161, 4-162, 4-163, 4-164, 4-165, 4-166, 4-167, 4-168, 4-169, 4-170, 4-255, 5-8, 5-14, 5-15

decibels on the A-weighted scale (dBA)..... ES-5, ES-6, 4-151, 4-152, 4-153, 4-154, 4-156, 4-159, 4-160, 4-161, 4-162, 4-163, 4-164, 4-165, 4-166, 4-167, 4-168, 4-169, 4-170, 4-255, 5-8, 5-14, 5-15

Delfin LNG, LLC..... 3-8, 3-13

Department of Defense (DOD) 1-15

depth..... 2-8, 2-9, 2-12, 2-21, 2-23, 2-25, 2-31, 2-32, 2-33, 4-10, 4-12, 4-22, 4-23, 4-25, 4-27, 4-30, 4-33, 4-69, 4-70, 4-195, 4-196

discharge 1-4, 1-8, 1-15, 2-12, 2-13, 2-14, 2-21, 2-27, 2-33, 4-8, 4-15, 4-28, 4-35, 4-36, 4-42, 4-45, 4-46, 4-52, 4-70, 4-71, 4-72, 4-73, 4-76, 4-77, 4-78, 4-188, 4-195, 4-239, 4-241, 5-3, 5-18

dissolved oxygen..... 4-35, 4-37, 4-72, 4-74, 4-78

dredge.....1-15, 2-9, 2-21, 4-3, 4-12, 4-25, 4-34, 4-68, 4-76, 4-78, 4-240, 4-242, 5-2, 5-4

dredged.....1-4, 1-15, 2-8, 2-9, 2-21, 2-23, 4-12, 4-17, 4-25, 4-32, 4-34, 4-46, 4-53, 4-61, 4-101, 4-240, 4-243, 5-2, 5-3

dredged material.....2-9, 2-21, 2-23, 4-12, 4-17, 4-32, 4-53, 4-61, 4-101, 5-3

dust..... ES-5, 4-26, 4-45, 4-134, 4-137, 4-138, 4-140, 4-141, 4-142, 4-143, 4-249, 4-251, 5-2, 5-7, 5-14

earthquake..... 4-5, 4-6, 4-11, 4-191, 4-233, 5-21

easement.....2-32, 3-25, 4-47, 4-93, 4-95, 4-96, 4-97, 4-239

electric motors.....3-24

emergency response plan (ERP) 2-36, 4-185, 4-225, 4-226, 4-229, 5-16

eminent domain..... 4-97, 5-11

emissions.....ES-5, 1-9, 1-10, 1-11, 1-13, 1-16, 3-24, 3-25, 3-29, 3-30, 4-119, 4-120, 4-123, 4-124, 4-125, 4-126, 4-127, 4-128, 4-129, 4-130, 4-131, 4-132, 4-133, 4-134, 4-135, 4-136, 4-137, 4-138, 4-139, 4-140, 4-141, 4-142, 4-143, 4-144, 4-145, 4-146, 4-147, 4-148, 4-149, 4-150, 4-249, 4-250, 4-251, 4-252, 4-253, 4-254, 4-255, 5-7, 5-14

Endangered Species Act (ESA) 1-4, 1-12, 1-13, 1-14, 1-15, 4-64, 4-66, 4-73, 4-79, 4-88, 4-244, 5-14

entrainment 4-70

Environmental Inspector (EI).....2-19, 4-36, 4-42, 4-58, 4-60, 4-143, 5-11, 5-12, 5-13, 5-14

Environmental Justice.....4-111

Eos LNG, LLC..... 3-8, 3-12

erosion.....ES-4, 2-15, 2-20, 2-21, 2-23, 2-25, 2-26, 2-27, 2-32, 2-33, 4-4, 4-9, 4-10, 4-12, 4-13, 4-14, 4-15, 4-16, 4-19, 4-20, 4-21, 4-28, 4-36, 4-37, 4-38, 4-42, 4-45, 4-51, 4-52, 4-60, 4-69, 4-70, 4-71, 4-73, 4-77, 4-78, 4-96, 4-141, 4-142, 4-229, 4-238, 4-239, 4-240, 4-241, 5-1, 5-2

Essential Fish Habitat (EFH) 1-3, 1-7, 1-15, 3-22, 3-23, 4-67, 4-72, 4-73, 4-74, 4-75, 4-76, 4-77, 4-78, 4-79, 5-1, 5-4, 5-5

ethylene 2-6, 2-7, 4-173, 4-174, 4-175, 4-188, 4-193, 4-195, 4-215, 4-222, 5-18

Executive Order (EO) 1-5, 4-8, 4-64, 4-111

export terminal ES-6, 1-11, 3-8, 3-9, 3-10, 3-15, 4-145, 4-171, 4-234, 4-235, 5-9

Federal Aviation Authority (FAA) 4-176, 4-182, 5-15

Federal Emergency Management Agency (FEMA) 4-8, 4-9

Federal Energy Regulatory Commission (FERC or Commission) ES-1, ES-2, ES-3, ES-4, ES-5, ES-6, ES-7, ES-8, 1-1, 1-2, 1-3, 1-4, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-14, 1-15, 1-16, 2-1, 2-18, 2-19, 2-20, 2-21, 2-23, 2-26, 2-27, 2-28, 2-31, 2-32, 2-34, 2-36, 2-38, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 4-1, 4-3, 4-5, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-21, 4-22, 4-25, 4-27, 4-28, 4-29, 4-31, 4-32, 4-33, 4-34, 4-35, 4-36, 4-37, 4-38, 4-39, 4-46, 4-51, 4-52, 4-53, 4-58, 4-60, 4-62, 4-64, 4-65, 4-70, 4-73, 4-74, 4-77, 4-78, 4-79, 4-88, 4-96, 4-97, 4-98, 4-99, 4-101, 4-111, 4-114, 4-115, 4-116, 4-117, 4-131, 4-145, 4-146, 4-153, 4-171, 4-172, 4-176, 4-180, 4-181, 4-182, 4-185, 4-189, 4-190, 4-191, 4-192, 4-193, 4-197, 4-199, 4-202, 4-207, 4-213, 4-222, 4-225, 4-226, 4-227, 4-232, 4-238, 4-239, 4-240, 4-241, 4-242, 4-255, 4-256, 5-1, 5-2, 5-3, 5-4, 5-5, 5-7, 5-8, 5-10, 5-11, 5-13, 5-14, 5-15, 5-20, 5-21, 5-22

Federal Register (FR) 4-228

FERC Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) ES-5, ES-7, 1-5, 1-9, 2-19, 2-20, 2-21, 2-23, 2-27, 2-31, 2-32, 2-34, 2-36, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-25, 4-27, 4-28, 4-29, 4-34, 4-36, 4-37, 4-45, 4-53, 4-58, 4-60, 4-62, 4-64, 4-65, 4-69, 4-72, 4-77, 4-78, 4-84, 4-88, 4-96, 4-117, 4-129, 4-140, 4-141, 4-142, 4-183, 4-184, 4-213, 4-225, 4-226, 4-239, 4-241, 4-242, 4-243, 5-1, 5-2, 5-3, 5-4, 5-5, 5-7, 5-9, 5-11, 5-14, 5-16

final design 4-11, 4-183, 4-185, 4-186, 4-187, 4-188, 4-191, 4-195, 4-196, 4-197, 4-202, 4-210, 4-214, 4-215, 4-221, 4-222, 4-226, 5-1, 5-15, 5-16, 5-17, 5-18, 5-19

fisheries 1-3, 1-15, 4-32, 4-38, 4-67, 4-68, 4-71, 4-72, 4-244, 5-5

flares ES-4, 2-6, 2-7, 2-11, 2-20, 3-23, 4-99, 4-100, 4-125, 4-148, 4-163, 4-183, 4-187, 5-17

floating liquefaction and storage vessel (FLNGV) 3-13

floating liquefaction, storage, and offloading (FLSO) 3-9, 3-10, 3-12

Florida Gas Transmission (FGT) 2-6, 3-18, 3-26

flume 2-25

forest ES-4, 3-26, 4-59, 4-60, 4-61, 4-62, 4-63, 4-86, 4-87, 4-88, 4-92, 4-94, 4-152, 4-245, 4-253, 5-1, 5-3, 5-4, 5-6

fossil ES-5, 4-10, 4-119, 4-130, 4-136, 4-253, 5-7

fragmentation 4-243, 5-5

Freeport LNG Expansion, LP and FLNG Liquefaction, LLC 3-5

Freeport LNG Terminal 3-4, 3-5

Gasfin LNG Project 3-8, 3-16

General Conformity Rule 4-129

geologic hazards 4-4, 4-230, 5-1

geology ES-3, 1-3, 4-237

global warming, ... 1-11, 4-119

global warming potential (GWP) 4-119

Golden Pass Export Pipeline Expansion ES-1, ES-2, ES-3, ES-4, ES-6, ES-7, 1-1, 1-2, 1-3, 1-4, 1-5, 1-9, 1-12, 1-13, 2-1, 2-4, 2-5, 2-6, 2-13, 2-14, 2-15, 2-16, 2-18, 2-23, 2-27, 2-28, 2-31, 2-32, 2-36, 2-37, 3-1, 3-2, 3-17, 3-18, 3-25, 3-26, 3-29, 4-1, 4-3, 4-4, 4-6, 4-7, 4-8, 4-9, 4-10, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-21, 4-22, 4-23, 4-24, 4-27, 4-28, 4-32, 4-33, 4-37, 4-38, 4-40, 4-41, 4-42, 4-43, 4-44, 4-45, 4-46, 4-47, 4-49, 4-50, 4-51, 4-54, 4-57, 4-58, 4-59, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-72, 4-73, 4-74, 4-80, 4-81, 4-84, 4-86, 4-87, 4-88, 4-90, 4-92, 4-93, 4-94, 4-95, 4-96, 4-97, 4-98, 4-100, 4-101, 4-102, 4-104, 4-105, 4-106, 4-107, 4-108, 4-109, 4-111, 4-116, 4-117, 4-119, 4-121, 4-131, 4-132, 4-138, 4-139, 4-140, 4-149, 4-153, 4-154, 4-160, 4-161, 4-162, 4-169, 4-171, 4-226, 4-227, 4-228, 4-229, 4-233, 4-238, 4-239, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-249, 4-251, 4-252, 4-255, 4-256, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7, 5-9, 5-10, 5-12, 5-13

Golden Pass Export Terminal ES-1, ES-2, ES-3, ES-4, ES-5, ES-6, ES-7, 1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-9, 1-11, 1-12, 1-13, 2-1, 2-3, 2-6, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-16, 2-18, 2-20, 2-21, 2-33, 2-34, 2-36, 3-1, 3-2, 3-5, 3-6, 3-7, 3-9, 3-10, 3-11, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-20, 3-22, 3-23, 3-24, 3-26, 4-3, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-19, 4-20, 4-21, 4-23, 4-24, 4-25, 4-26, 4-27, 4-29, 4-30, 4-31, 4-32, 4-34, 4-35, 4-36, 4-37, 4-38, 4-39, 4-41, 4-42, 4-43, 4-44, 4-46, 4-47, 4-48, 4-49, 4-51, 4-53, 4-54, 4-55, 4-58, 4-60, 4-61, 4-62, 4-64, 4-65, 4-66, 4-67, 4-68, 4-69, 4-70, 4-71, 4-72, 4-73, 4-74, 4-75, 4-76, 4-77, 4-78, 4-79, 4-80, 4-82, 4-83, 4-84, 4-86, 4-87, 4-88, 4-89, 4-90, 4-95, 4-96, 4-97, 4-98, 4-99, 4-100, 4-101, 4-102, 4-104, 4-105, 4-106, 4-107, 4-108, 4-109, 4-110, 4-111, 4-112, 4-114, 4-116, 4-117, 4-121, 4-123, 4-125, 4-126, 4-127, 4-128, 4-129, 4-130, 4-133, 4-134, 4-135, 4-136, 4-138, 4-143, 4-144, 4-145, 4-146, 4-148, 4-149, 4-153, 4-154, 4-155, 4-156, 4-159, 4-160, 4-161, 4-163, 4-167, 4-168, 4-169, 4-171, 4-237, 4-238, 4-239, 4-240, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-248, 4-249, 4-250, 4-251, 4-254, 4-255, 4-256, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7, 5-9, 5-10, 5-12, 5-13, 5-14

Golden Pass LNG Terminal ES-1, ES-3, ES-4, 1-1, 1-2, 1-3, 1-5, 1-7, 2-1, 2-6, 2-12, 2-36, 3-4, 3-5, 3-6, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-20, 3-22, 3-25, 4-13, 4-22, 4-23, 4-24, 4-34, 4-35, 4-41, 4-68, 4-69, 4-71, 4-74, 4-77, 4-82, 4-83, 4-84, 4-89, 4-95, 4-96, 4-98, 4-99, 4-100, 4-106, 4-114, 4-116, 4-123, 4-125, 4-163, 4-187, 4-225, 4-234, 4-238, 4-239, 4-240, 4-242, 4-245, 4-246, 4-247, 4-248, 4-250, 4-251, 4-256, 5-16

Golden Pass Pipeline LLC (GPPL) ES-1, 1-1

Golden Pass Products LLC (GPP) ES-1, 1-1

Green sea turtle 4-79, 4-81, 4-82, 5-5

greenhouse gas (GHG) ES-5, 1-11, 3-29, 4-119, 4-124, 4-125, 4-126, 4-127, 4-130, 4-131, 4-132, 4-133, 4-135, 4-136, 4-137, 4-139, 4-140, 4-143, 4-148, 4-149, 4-253, 4-254, 4-255

groundwater 2-26, 2-27, 4-7, 4-14, 4-22, 4-23, 4-24, 4-25, 4-27, 4-28, 4-29, 4-46, 4-52, 4-239, 5-2, 5-3

Gulf Coast Liquefaction Project 3-16

Gulf Intracoastal Waterway 3-20, 4-35, 4-248, 4-255

Gulf LNG Terminal 3-4, 3-6

habitat..... ES-3, ES-4, ES-7, 1-3, 1-8, 1-14, 4-30, 4-32, 4-46, 4-51, 4-54, 4-59, 4-60, 4-61, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-69, 4-72, 4-73, 4-74, 4-75, 4-76, 4-77, 4-78, 4-79, 4-80, 4-81, 4-82, 4-83, 4-84, 4-86, 4-87, 4-88, 4-241, 4-242, 4-243, 4-244, 5-4, 5-5

hazardous air pollutants (HAPs) 4-123, 4-125, 4-126, 4-128, 4-129, 4-132, 4-249, 4-252

hazardous fluids 4-173, 4-186, 4-187, 4-188, 4-189, 4-190, 4-191, 4-194, 4-197, 4-198, 4-215, 4-226, 5-13, 5-15, 5-17, 5-19, 5-21

high consequence areas (HCA)..... 4-228, 4-229

horizontal directional drill (HDD) 2-18, 2-31, 4-13, 4-21, 4-26, 4-27, 4-28, 4-41, 4-45, 4-47, 4-48, 4-52, 4-58, 4-59, 4-93, 4-94, 4-97, 4-100, 4-111, 4-153, 4-156, 4-158, 4-159, 4-162, 4-163, 4-164, 4-242, 4-255, 5-3, 5-7

horsepower.....1-2, 3-29, 4-169, 5-14

housing..... 4-101, 4-107, 4-108, 4-152, 4-247, 5-6

hunting 4-63, 4-98

hydrogen sulfide..... ES-2, 1-1, 4-188, 5-18

hydrostatic test water 2-21, 4-26, 4-35, 4-45, 4-52, 4-70, 4-76, 4-77, 4-241, 5-3

hydrostatic testing 1-6, 1-15, 2-21, 2-27, 4-25, 4-28, 4-35, 4-45, 4-68, 4-70, 4-73, 4-77, 4-239, 5-2, 5-3

ignition 4-174, 4-178, 4-179, 4-180, 4-184, 4-192, 4-198, 4-214, 4-215, 4-218, 4-225, 4-226, 5-16

impoundments..... 2-34, 3-25, 4-38, 4-173, 4-179, 4-184, 4-186, 4-188, 4-193, 4-194, 4-195, 4-196, 4-198, 4-199, 4-204, 4-214, 5-16, 5-18

incidents 2-36, 4-163, 4-179, 4-180, 4-181, 4-183, 4-184, 4-185, 4-190, 4-191, 4-192, 4-194, 4-198, 4-211, 4-222, 4-225, 4-227, 4-230, 4-232, 4-233, 5-16, 5-21, 5-22

interconnection..... ES-2, 1-1, 1-2, 1-10, 2-6, 2-13, 2-14, 2-15, 2-18, 2-33, 3-11, 3-12, 3-16, 3-18, 3-26, 4-9, 4-28, 4-33, 4-41, 4-51, 4-59, 4-62, 4-93, 4-94, 5-7

invasive species..... 1-8, 4-52, 4-59, 4-71, 4-78

J. D. Murphree Wildlife Management Area (WMA)..... 3-25, 4-12, 4-53, 4-61, 4-67, 4-84, 4-97, 4-98, 5-6

Jefferson County ..... ES- 2, ES-4, 1-1, 2-1, 3-14, 4-8, 4-9, 4-22, 4-24, 4-26, 4-29, 4-30, 4-31, 4-53, 4-55, 4-82, 4-89, 4-90, 4-91, 4-93, 4-101, 4-102, 4-103, 4-104, 4-105, 4-106, 4-107, 4-108, 4-109, 4-110, 4-112, 4-113, 4-153, 4-182, 4-247, 4-248, 5-6

Lake Charles LNG Terminal..... 3-4, 3-7, 4-235

land requirements..... 2-15, 2-18

land use ES-3, 1-3, 2-32, 4-13, 4-25, 4-59, 4-80, 4-88, 4-94, 4-96, 4-100, 4-245, 5-6, 5-11

landowner..... ES-3, 1-9, 1-10, 2-25, 2-26, 2-32, 4-17, 4-19, 4-20, 4-21, 4-95, 4-96, 4-97, 4-111, 5-11, 5-13

landslide 4-4, 4-7, 4-9, 4-191, 5-21

Lavaca Bay LNG Project 3-8, 3-9

Leatherback sea turtle 4-81, 4-83

liquefaction ES-1, ES-2, ES-4, ES-5, ES-6, ES-7, 1-1, 1-2, 1-11, 2-6, 2-7, 2-8, 2-12, 2-18, 2-20, 2-34, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-20, 3-23, 3-24, 4-4, 4-5, 4-7, 4-9, 4-10, 4-11, 4-24, 4-27, 4-99, 4-110, 4-163, 4-167, 4-172, 4-173, 4-174, 4-180, 4-181, 4-182, 4-189, 4-194, 4-195, 4-199, 4-200, 4-204, 4-221, 4-222, 4-225, 4-226, 4-234, 4-235, 5-1, 5-8, 5-9, 5-10, 5-13, 5-14, 5-20

liquefaction trains.....ES-2, ES-4, ES-5, ES-7, 1-2, 2-6, 2-7, 2-8, 2-18, 2-20, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-20, 3-24, 4-99, 4-167, 4-180, 4-182, 4-189, 4-195, 4-200, 4-235, 5-8, 5-10, 5-14, 5-20

liquefaction units..... 2-6, 3-16

LNG Storage Tank..... 4-206, 4-220

Loggerhead sea turtle..... 4-81, 4-83

Louisiana..... ES-1, ES-2, ES-3, ES-5, ES-8, 1-1, 1-6, 1-7, 1-9, 1-11, 1-14, 1-16, 2-1, 2-6, 2-13, 2-32, 3-4, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-16, 3-17, 4-1, 4-5, 4-7, 4-8, 4-9, 4-12, 4-22, 4-23, 4-24, 4-27, 4-28, 4-29, 4-33, 4-36, 4-46, 4-53, 4-65, 4-66, 4-67, 4-80, 4-81, 4-83, 4-84, 4-85, 4-86, 4-87, 4-88, 4-101, 4-102, 4-103, 4-104, 4-105, 4-107, 4-108, 4-109, 4-112, 4-113, 4-114, 4-115, 4-116, 4-117, 4-118, 4-119, 4-120, 4-121, 4-122, 4-133, 4-138, 4-153, 4-227, 4-229, 4-241, 4-242, 4-244, 4-246, 4-247, 4-248, 4-249, 4-253, 4-254, 4-256

Louisiana Department of Environmental Quality (LDEQ).....1-14, 1-16, 2-27, 2-33, 4-22, 4-23, 4-45, 4-46, 4-73, 4-101, 4-118, 4-122, 4-131, 4-133, 4-145, 4-149, 4-150, 4-252, 5-3, 5-7

Louisiana Department of Natural Resources (LDNR).....4-24, 4-46, 4-52, 4-53, 4-54, 4-101, 4-242, 5-14

Louisiana Department of Wildlife and Fisheries (LDWF) 4-32, 4-61, 4-62, 4-65, 4-67, 4-79, 4-80, 4-81, 4-84, 4-85, 4-86, 4-87, 4-88, 4-244, 5-4, 5-5

lower flammability limit (LFL) 4-175, 4-177, 4-178, 4-193, 4-198, 4-199, 4-201, 4-202, 4-203, 4-204, 4-207, 4-211, 4-215

Magnolia LNG Project.....3-8, 3-9, 3-10

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).....1-4, 1-12, 1-15, 4-73

marine traffic..... 1-5, 2-9, 4-172, 4-225, 4-239, 4-241, 4-248, 4-250, 5-8

maximum allowable operating pressure (MAOP) 2-14, 2-26, 4-228

mercury ES-2, 1-1, 2-6, 4-128, 4-172

methane.....2-6, 4-78, 4-119, 4-173, 4-177, 4-188, 4-193, 4-214, 4-215, 4-226, 5-18

Migratory Bird Treaty Act (MBTA).....4-64

migratory birds..... 1-7, 4-64, 4-65, 4-66, 5-1, 5-4

million metric tons per year (mtpy) 1-1, 1-2, 1-5, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-29, 4-133

mineral resources 4-3, 4-4, 4-239

mitigation plan ES-4, ES-7, 4-51, 4-53, 4-74, 5-3

monitoring.....ES-8, 2-19, 2-21, 2-27, 2-32, 2-33, 2-37, 4-17, 4-45, 4-53, 4-60, 4-65, 4-120, 4-122, 4-127, 4-128, 4-142, 4-146, 4-151, 4-181, 4-184, 4-227, 4-252, 5-12

mowing 4-21, 4-43, 4-52, 4-53, 4-59, 4-63, 4-65, 4-242

National Ambient Air Quality Standards (NAAQS) 4-118, 4-119, 4-120, 4-121, 4-122, 4-129, 4-143, 4-144, 4-146, 4-147, 4-148, 4-149, 4-150, 4-151, 4-249, 4-250, 4-251, 4-252

National Environmental Policy Act (NEPA).....ES-1, 1-1, 1-4, 1-6, 1-10, 1-11, 1-12, 1-15, 3-1, 4-73, 4-74, 4-112, 4-172, 4-226, 4-254, 4-255, 5-8

National Historic Preservation Act (NHPA).....1-4, 1-9, 1-12, 1-14, 1-15, 4-114, 4-117, 5-7

National Marine Fisheries Service (NOAA Fisheries) 1-7, 1-12, 1-15, 4-73, 4-74, 4-79, 4-80, 4-83, 4-84, 4-88, 4-242, 4-244, 5-4, 5-14

National Oceanic and Atmospheric Administration (NOAA) 1-7, 1-12, 1-15, 4-8, 4-32, 4-73, 4-74, 4-75, 4-79, 4-80, 4-82, 4-83, 4-84, 4-88, 4-175, 4-176, 4-233, 4-242, 4-244, 5-4, 5-14

National Pollutant Discharge Elimination System (NPDES) 1-6, 1-15, 4-35, 4-72, 4-78

National Register of Historic Places (NRHP)..... 1-15, 4-114, 4-116

National Wetland Inventory (NWI) 3-1, 4-46

National Wildlife Refuge (NWR)..... 4-97, 4-98, 4-99, 4-126, 5-6

Natural Gas Act (NGA) ES-1, 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-11, 1-12, 1-15, 4-64, 4-97, 4-171, 4-225, 5-11

Natural Gas Pipeline Company of America (NGPL).....1-2, 2-6, 2-14, 2-15, 2-16, 3-18, 3-25, 3-26, 4-3, 4-23, 4-26, 4-29, 4-49, 4-55, 4-91, 4-94, 4-242

Natural Resource Conservation Service (NRCS) 4-12, 4-13, 4-14, 4-60, 4-65, 5-4

New Source Performance Standards (NSPS)..... 4-127, 4-131, 4-149

nitrogen dioxide (NO_2)..... 4-118, 4-119, 4-121, 4-122, 4-143, 4-144, 4-149, 4-150, 4-151, 4-250, 4-251, 4-252

nitrogen oxides (NO_x) 3-24, 4-120, 4-126, 4-129, 4-133, 4-135, 4-136, 4-142, 4-144, 4-148, 4-149

No-Action Alternative ES-6, 3-1, 3-2, 5-9

noise ES-3, ES-4, ES-5, ES-6, 1-3, 1-7, 1-9, 2-32, 3-5, 4-61, 4-62, 4-67, 4-69, 4-71, 4-76, 4-77, 4-83, 4-151, 4-152, 4-153, 4-154, 4-156, 4-159, 4-160, 4-161, 4-162, 4-163, 4-164, 4-167, 4-169, 4-170, 4-171, 4-255, 5-4, 5-7, 5-8, 5-14, 5-15

noise-sensitive area (NSA) ES-5, ES-6, 3-25, 4-152, 4-153, 4-154, 4-155, 4-156, 4-157, 4-158, 4-159, 4-160, 4-161, 4-162, 4-163, 4-164, 4-165, 4-167, 4-168, 4-169, 4-170, 4-171, 4-255, 5-7, 5-8, 5-14, 5-15

non-jurisdictional 1-11, 1-12, 3-15

North American Vertical Datum of 1988 (NAVD 88) 2-8, 2-9, 2-12, 2-13, 2-20, 2-21, 2-22, 2-23, 4-8, 4-10, 4-70, 4-182

noxious weeds..... 4-59, 4-60, 4-243

Office of Energy Projects (OEP) 4-88, 4-142, 4-171, 4-185, 4-189, 4-191, 4-195, 5-10, 5-11, 5-12, 5-13, 5-14, 5-15, 5-20, 5-22

Office of Pipeline Safety (OPS) 4-227, 4-228

open water ES-3, ES-4, 2-15, 3-4, 4-54, 4-60, 4-61, 4-64, 4-67, 4-75, 4-78, 4-88, 4-89, 4-95, 4-96, 4-245, 5-5

open-cut 2-25, 2-27, 2-31, 4-33, 4-37, 4-47, 4-72, 4-97, 5-2, 5-5

Orange County 1-14, 2-15, 3-29, 4-9, 4-22, 4-23, 4-24, 4-29, 4-33, 4-45, 4-53, 4-56, 4-90, 4-91, 4-93, 4-94, 4-102, 4-103, 4-104, 4-105, 4-107, 4-108, 4-109, 4-112, 4-113, 4-132, 4-153, 4-237, 4-247, 4-248, 4-249

overpressures 4-173, 4-174, 4-179, 4-181, 4-192, 4-214, 4-215, 4-218, 4-221, 4-222, 4-224, 5-19

ownership 4-96

oxygen (O_2) 4-148, 4-149

ozone (O_3) 4-118, 4-119, 4-120, 4-121, 4-122, 4-124, 4-129

palustrine emergent (PEM) 3-22, 4-47, 4-48, 4-49, 4-50, 4-51, 4-57, 4-59, 4-62, 4-63, 4-92, 4-241, 4-242, 5-3

palustrine forested (PFO) 4-47, 4-48, 4-49, 4-50, 4-51, 4-52, 4-57, 4-62, 4-92, 4-241, 4-242, 5-3

palustrine scrub-shrub (PSS) 4-47, 4-48, 4-49, 4-50, 4-51, 4-52, 4-57, 4-62, 4-92, 4-241, 4-242, 5-3

particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}) 4-118, 4-119, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-130, 4-132, 4-134, 4-135, 4-136, 4-137, 4-138, 4-139, 4-140, 4-143, 4-148, 4-149, 4-150, 4-251

particulate matter with an aerodynamic diameter less than 2.5 microns ($PM_{2.5}$) 4-118, 4-119, 4-121, 4-123, 4-124, 4-125, 4-126, 4-130, 4-134, 4-135, 4-136, 4-137, 4-138, 4-139, 4-140, 4-143, 4-145, 4-148, 4-149, 4-150, 4-250, 4-251

permanent right-of-way 2-15, 2-16, 2-32, 4-17, 4-21, 4-43, 4-59, 4-63, 4-93, 4-95, 4-100, 4-243, 5-3, 5-4

permits ES-5, 1-4, 1-12, 1-15, 1-16, 2-18, 2-19, 2-28, 2-31, 2-38, 3-5, 3-7, 3-9, 3-10, 3-11, 3-12, 3-20, 4-28, 4-34, 4-45, 4-46, 4-51, 4-73, 4-119, 4-123, 4-124, 4-128, 4-133, 4-150, 4-183, 4-227, 4-240, 4-253, 5-2, 5-7, 5-12

pig launcher/receiver ES-2, 2-14

piling 2-12, 2-20, 4-28, 4-62, 4-83

pine plantation ES-4, 2-32, 4-54, 4-62, 4-88, 4-93, 4-95, 4-96, 4-245, 5-4, 5-6

Pipeline and Hazardous Materials Safety Administration ES-4-176, 4-227, 4-230, 4-231, 4-232, 4-233

piping plover 4-79, 4-80, 4-244, 5-5

population 4-66, 4-76, 4-77, 4-79, 4-101, 4-102, 4-104, 4-105, 4-109, 4-112, 4-175, 4-227, 4-228, 4-247, 4-253, 5-6

Port Arthur LNG 3-8, 3-14

Prevention of Significant Deterioration (PSD) 1-13, 1-14, 1-16, 4-119, 4-123, 4-124, 4-125, 4-126, 4-129, 4-131, 4-143, 4-144, 4-145, 4-146, 4-148, 4-149, 4-249, 4-250, 4-251, 4-254, 5-7

prime farmland 4-12, 4-13, 4-14, 4-96, 5-1, 5-2

public services 4-101, 4-109, 4-247, 5-6

purchased power 3-24, 3-29

purpose and need 3-2, 3-6, 3-12, 3-14

Railroad Commission of Texas (RRC) 2-21, 2-27, 2-33, 4-34, 4-35, 4-45, 4-46, 4-73, 4-101, 5-5, 5-14

railroad crossings 4-228

Record of Decision 1-5, 1-6

recreation ES-3, 1-3, 4-97, 5-6

red drum 4-67, 4-69, 4-74, 4-75, 4-76, 4-78

red-cockaded woodpecker 4-61

refrigerants ES-2, 1-2, 2-6, 2-7, 2-8, 2-34, 3-10, 4-110, 4-163, 4-166, 4-173, 4-174, 4-177, 4-190, 4-194, 4-195, 4-197, 4-206, 4-213, 4-215, 4-218, 4-223, 5-19, 5-21

releases 1-9, 2-7, 2-31, 2-34, 2-35, 4-25, 4-28, 4-36, 4-68, 4-72, 4-74, 4-76, 4-77, 4-78, 4-84, 4-148, 4-167, 4-172, 4-173, 4-174, 4-175, 4-178, 4-179, 4-180, 4-181, 4-182, 4-184, 4-190, 4-191, 4-192, 4-193, 4-196, 4-199, 4-200, 4-202, 4-203, 4-206, 4-207, 4-211, 4-212, 4-213, 4-214, 4-215, 4-224, 4-226, 4-253, 5-18, 5-19, 5-21

residence ES-7, 2-32, 3-18, 3-25, 4-96, 4-97, 4-100, 4-101, 4-152, 4-154, 4-159, 4-248, 5-9

revegetation 2-27, 2-32, 4-12, 4-13, 4-15, 4-16, 4-17, 4-19, 4-45, 4-52, 4-53, 4-59, 4-60, 4-63, 4-239, 5-1, 5-2, 5-4, 5-5

riparian 4-45, 4-88

risks 4-4, 4-6, 4-7, 4-8, 4-18, 4-33, 4-64, 4-72, 4-113, 4-175, 4-178, 4-180, 4-181, 4-185, 4-192, 4-210, 4-226, 4-227, 4-228, 4-233, 4-256, 5-8, 5-9

road crossings 2-12, 2-31, 2-36, 4-111, 4-142

Sabine Neches Navigation District (SNND) 4-12, 4-30, 4-101

Sabine Pass LNG Terminal 3-6, 3-7, 4-98, 4-99, 4-145, 4-234, 4-235, 4-240, 4-243, 4-245, 4-246, 4-247, 4-248, 4-249, 4-250, 4-256

safety ES-3, ES-4, ES-7, 1-3, 1-5, 1-6, 2-7, 2-19, 2-25, 2-26, 2-33, 2-34, 2-37, 3-23, 4-43, 4-45, 4-65, 4-69, 4-99, 4-100, 4-110, 4-113, 4-171, 4-172, 4-173, 4-179, 4-180, 4-181, 4-183, 4-185, 4-189, 4-190, 4-191, 4-192, 4-194, 4-198, 4-210, 4-211, 4-213, 4-214, 4-221, 4-225, 4-226, 4-227, 4-228, 4-229, 4-231, 4-232, 4-248, 4-250, 4-255, 4-256, 5-8, 5-9, 5-19, 5-20, 5-21

Salt Bayou 4-53, 4-242

Salt Bayou Unit 4-53, 4-242

scour 2-26, 4-9, 4-10, 4-238

sea level 4-3, 4-8, 4-240

Secretary of the Commission (Secretary) 4-5, 4-11, 4-32, 4-53, 4-142, 4-167, 4-169, 4-171, 4-182, 4-185, 4-190, 4-195, 5-10, 5-11, 5-12, 5-13, 5-14, 5-15, 5-20

Section 10 ..... 1-4, 1-9, 1-12, 1-14, 1-15, 4-34, 4-46, 4-101, 4-114, 4-117, 5-2, 5-3, 5-7

Section 106.....1-4, 1-9, 1-12, 1-14, 1-15, 4-114, 4-117, 5-7

Section 404.....1-4, 1-5, 1-6, 1-12, 1-15, 4-34, 4-46, 4-52, 4-69, 5-2, 5-3

Section 7 .....ES-1, 1-1, 1-2, 1-3, 1-4, 1-11, 1-12, 1-13, 1-14, 3-12, 4-79, 4-88, 4-97, 4-244, 5-14

sediments 1-8, 2-9, 2-21, 2-23, 2-26, 3-22, 3-23, 4-1, 4-3, 4-6, 4-7, 4-12, 4-15, 4-17, 4-25, 4-28, 4-30, 4-32, 4-33, 4-34, 4-35, 4-37, 4-45, 4-52, 4-60, 4-67, 4-69, 4-70, 4-71, 4-73, 4-74, 4-76, 4-77, 4-78, 4-86, 4-239, 4-240, 5-2, 5-4, 5-14

seepage.....4-28

seismic 4-4, 4-5, 4-6, 4-7, 4-9, 4-10, 4-11, 4-181, 4-182, 5-1, 5-14

side slopes.....2-13

significant.....ES-4, ES-5, ES-6, ES-7, 1-3, 2-21, 2-26, 3-1, 3-2, 3-5, 3-6, 3-7, 3-9, 3-10, 3-11, 3-12, 3-14, 3-15, 3-16, 3-17, 3-20, 3-23, 3-25, 3-26, 3-29, 3-30, 4-1, 4-5, 4-9, 4-11, 4-12, 4-13, 4-14, 4-25, 4-27, 4-30, 4-32, 4-35, 4-36, 4-45, 4-46, 4-48, 4-54, 4-64, 4-69, 4-72, 4-77, 4-78, 4-85, 4-88, 4-96, 4-97, 4-98, 4-99, 4-100, 4-101, 4-106, 4-108, 4-110, 4-111, 4-125, 4-143, 4-145, 4-148, 4-149, 4-150, 4-161, 4-162, 4-169, 4-171, 4-173, 4-174, 4-177, 4-182, 4-189, 4-190, 4-191, 4-195, 4-201, 4-204, 4-210, 4-213, 4-218, 4-221, 4-225, 4-226, 4-230, 4-233, 4-239, 4-240, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-248, 4-249, 4-250, 4-251, 4-252, 4-255, 4-256, 5-1, 5-2, 5-4, 5-6, 5-7, 5-8, 5-9, 5-10, 5-16, 5-20, 5-21, 5-22

significant impact level (SIL) 4-143, 4-144, 4-149, 4-150

socioeconomics.....ES-3, 1-3, 1-8, 4-101, 4-237, 4-238, 4-247, 5-6

soils ES-3, ES-7, 1-3, 2-25, 2-28, 4-3, 4-5, 4-7, 4-9, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-20, 4-25, 4-45, 4-47, 4-51, 4-52, 4-60, 4-96, 4-134, 4-141, 4-239, 5-1, 5-2

staging area 2-8, 2-23, 4-83, 4-94, 4-141, 5-11

State Historic Preservation Office (SHPO).....4-114, 4-115, 4-116, 4-117, 5-7

State Implementation Plan (SIP).....4-129, 4-136, 4-146, 4-250, 4-252

storage tanks..... ES-2, ES-7, 1-2, 2-1, 2-7, 2-8, 2-11, 2-35, 3-4, 3-5, 3-6, 3-8, 3-9, 3-10, 3-11, 3-12, 3-14, 3-15, 3-16, 3-18, 4-25, 4-35, 4-98, 4-126, 4-127, 4-128, 4-148, 4-149, 4-173, 4-179, 4-180, 4-181, 4-182, 4-186, 4-187, 4-189, 4-190, 4-191, 4-192, 4-194, 4-195, 4-200, 4-204, 4-221, 5-9, 5-16, 5-17, 5-20, 5-21

sulphur dioxide (SO_2)..... 4-118, 4-119, 4-121, 4-123, 4-124, 4-125, 4-126, 4-128, 4-130, 4-132, 4-135, 4-136, 4-137, 4-139, 4-140, 4-143, 4-149

Supply Dock.....ES-2, ES-4, ES-7, 1-2, 1-14, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-15, 2-16, 2-21, 2-23, 2-34, 3-1, 3-6, 3-12, 3-14, 3-20, 3-21, 3-22, 3-23, 4-10, 4-12, 4-16, 4-24, 4-25, 4-30, 4-31, 4-32, 4-34, 4-35, 4-36, 4-38, 4-39, 4-57, 4-61, 4-67, 4-68, 4-69, 4-71, 4-72, 4-76, 4-77, 4-78, 4-79, 4-83, 4-95, 4-97, 4-99, 4-110, 4-114, 4-115, 4-116, 4-159, 4-239, 4-240, 4-241, 4-243, 5-2, 5-4, 5-6, 5-10

surface water 1-8, 2-25, 4-24, 4-25, 4-29, 4-33, 4-35, 4-36, 4-37, 4-45, 4-46, 4-239, 4-241, 5-2, 5-3

surveys ES-5, ES-6, 2-9, 2-25, 2-32, 2-37, 3-1, 4-5, 4-21, 4-40, 4-43, 4-46, 4-51, 4-53, 4-54, 4-59, 4-60, 4-64, 4-65, 4-66, 4-67, 4-79, 4-80, 4-82, 4-84,

4-86, 4-87, 4-88, 4-114, 4-115, 4-116, 4-117, 4-154, 4-156, 4-167, 4-169, 4-170, 4-171, 4-228, 4-249, 4-255, 5-4, 5-5, 5-7, 5-8, 5-11, 5-12, 5-14, 5-15

system alternatives ES-6, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 5-9

Tennessee Gas Pipeline (TGP) ES-2, 1-2, 2-6, 2-13, 2-14, 2-15, 3-18, 4-3, 4-4, 4-23

Terminal Expansion Alternative Site 3-19

Terminal Expansion Alternative Site 1 (TEA-1) 3-18

Texas Eastern Transmission Company (TETCO) ES-2, 1-2, 2-6, 2-13, 2-14, 2-15, 2-16, 3-18, 3-26, 4-3, 4-4, 4-23, 4-26, 4-29, 4-50, 4-56, 4-91, 4-94, 4-116

Texoma Pipeline Company ES-2, 1-2, 2-6, 2-14, 2-15, 2-16, 3-18, 3-25, 3-26, 4-3, 4-4, 4-23, 4-26, 4-29, 4-49, 4-56, 4-91, 4-94, 4-235

threatened and endangered species 1-7, 1-8, 4-244

Title V ES-5, 1-13, 1-14, 1-16, 4-124, 4-128, 4-129, 4-133, 4-150, 5-7

topsoil segregation 4-94, 4-96

trains ES-2, ES-4, ES-5, ES-7, 1-2, 2-6, 2-7, 2-8, 2-18, 2-20, 2-34, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-20, 3-23, 3-24, 4-99, 4-163, 4-166, 4-167, 4-180, 4-182, 4-189, 4-195, 4-200, 4-235, 5-8, 5-10, 5-14, 5-20

Transcontinental Gas Pipeline (Transco) 1-2, 2-6, 2-14, 2-15, 2-16, 3-18, 3-26, 4-3, 4-4, 4-9, 4-23, 4-26, 4-28, 4-29, 4-45, 4-50, 4-56, 4-91, 4-94, 4-116

transportation ES-6, 1-2, 1-3, 1-10, 2-1, 2-31, 3-20, 4-65, 4-101, 4-111, 4-159, 4-174, 4-182, 4-183, 4-184, 4-194, 4-227, 4-232, 4-233, 4-237, 4-242, 4-248, 4-249, 4-253, 4-254, 5-9

Trunkline 3-4, 3-7, 4-235

turbiditT 4-27, 4-28, 4-33, 4-34, 4-35, 4-36, 4-37, 4-45, 4-68, 4-70, 4-72, 4-76, 4-77, 4-78, 4-240, 4-243

turbines 2-6, 2-8, 2-14, 3-24, 3-29, 4-125, 4-128, 4-148, 4-167, 4-169, 4-215, 4-254

U.S. Army Corps of Engineers (COE) ES-1, ES-4, 1-4, 1-5, 1-6, 1-7, 1-12, 1-15, 2-9, 2-21, 2-23, 2-34, 3-6, 4-12, 4-30, 4-32, 4-34, 4-42, 4-43, 4-44, 4-46, 4-47, 4-48, 4-51, 4-52, 4-53, 4-54, 4-69, 4-70, 4-77, 4-101, 4-110, 4-240, 4-241, 4-242, 4-243, 4-246, 5-1, 5-2, 5-4, 5-14

U.S. Coast Guard (Coast Guard) ES-1, 1-4, 1-5, 1-12, 2-1, 2-34, 2-38, 3-2, 3-13, 4-35, 4-36, 4-43, 4-71, 4-78, 4-110, 4-111, 4-171, 4-172, 4-183, 4-184, 4-214, 4-225, 4-241, 5-1, 5-8

U.S. Department of Agriculture (USDA) 4-59

U.S. Department of Energy (DOE) 1-3, 1-4, 1-5, 1-11, 1-13, 3-4, 3-7, 4-171, 4-175, 4-176, 4-225, 4-254, 5-1

U.S. Department of Transportation (DOT) 1-4, 1-6, 1-12, 1-13, 2-25, 2-26, 2-34, 2-36, 2-37, 3-13, 4-171, 4-172, 4-176, 4-181, 4-184, 4-192, 4-193, 4-194, 4-195, 4-197, 4-198, 4-199, 4-210, 4-213, 4-221, 4-225, 4-226, 4-227, 4-228, 4-229, 4-230, 4-232, 4-233, 4-248, 5-1, 5-8, 5-9, 5-18

U.S. Environmental Protection Agency (EPA)..... ES-1, ES-3, 1-4, 1-6, 1-8, 1-9, 1-10, 1-13, 1-15, 1-16, 4-17, 4-23, 4-27, 4-29, 4-32, 4-33, 4-35, 4-36, 4-46, 4-66, 4-71, 4-78, 4-111, 4-112, 4-118, 4-119, 4-120, 4-122, 4-124, 4-127, 4-128, 4-130, 4-131, 4-133, 4-134, 4-135, 4-136, 4-137, 4-138, 4-139, 4-140, 4-141, 4-142, 4-145, 4-146, 4-147, 4-148, 4-150, 4-151, 4-152, 4-153, 4-175, 4-176, 4-177, 4-193, 4-194, 4-233, 4-250, 4-252, 5-1, 5-2, 5-14

U.S. Fish and Wildlife Service (FWS)..... 1-7, 1-8, 1-13, 1-15, 4-64, 4-65, 4-66, 4-67, 4-79, 4-80, 4-81, 4-84, 4-85, 4-86, 4-87, 4-88, 4-242, 4-244, 5-4, 5-5, 5-14

U.S. Geological Survey (USGS)..... 3-1, 4-1, 4-3, 4-6, 4-7, 4-22, 4-23, 4-24, 4-25

Unanticipated Discovery Plan (UDP)..... 4-10, 4-117

upland..... ES-4, ES-7, 2-22, 2-25, 2-26, 2-28, 3-18, 3-25, 3-26, 4-12, 4-17, 4-21, 4-28, 4-34, 4-38, 4-39, 4-41, 4-42, 4-45, 4-52, 4-54, 4-58, 4-59, 4-60, 4-61, 4-62, 4-63, 4-68, 4-73, 4-78, 4-88, 4-89, 4-92, 4-93, 5-3, 5-4, 5-6, 5-9

Upland Erosion Control, Revegetation, and Maintenance Plan (Plan)..... ES-5, ES-7, 1-5, 1-9, 2-19, 2-20, 2-21, 2-23, 2-27, 2-31, 2-32, 2-34, 2-36, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-25, 4-27, 4-28, 4-29, 4-34, 4-36, 4-37, 4-45, 4-53, 4-58, 4-60, 4-62, 4-64, 4-65, 4-69, 4-72, 4-77, 4-78, 4-84, 4-88, 4-96, 4-117, 4-129, 4-140, 4-141, 4-142, 4-183, 4-184, 4-213, 4-225, 4-226, 4-239, 4-241, 4-242, 4-243, 5-1, 5-2, 5-3, 5-4, 5-5, 5-7, 5-9, 5-11, 5-14, 5-16

upper flammability limit (UFL)..... 4-178, 4-179

vapor..... 2-7, 2-34, 3-23, 4-127, 4-173, 4-174, 4-175, 4-177, 4-178, 4-179, 4-180, 4-192, 4-193, 4-194, 4-198, 4-199, 4-200, 4-201, 4-202, 4-203, 4-204, 4-206, 4-207, 4-210, 4-211, 4-213, 4-214, 4-215, 4-218, 4-221, 4-224, 5-18, 5-19

vapor fences..... 4-201, 4-202, 4-210

vegetation..... ES-3, ES-4, 1-3, 1-8, 2-28, 2-31, 4-15, 4-17, 4-20, 4-21, 4-27, 4-29, 4-43, 4-45, 4-46, 4-47, 4-51, 4-52, 4-53, 4-54, 4-57, 4-58, 4-59, 4-60, 4-61, 4-63, 4-65, 4-74, 4-75, 4-80, 4-82, 4-86, 4-89, 4-94, 4-100, 4-101, 4-135, 4-141, 4-152, 4-154, 4-159, 4-239, 4-242, 4-243, 5-3, 5-4, 5-6

vessel traffic..... 1-5, 4-67, 4-71, 4-76, 4-77, 4-98, 4-225, 4-241, 4-245, 4-246, 4-248, 4-255, 5-6, 5-8

visual impacts..... 3-29, 4-97, 4-99, 4-100, 4-101, 4-245, 4-246, 5-6

visual resources,..... ES-3, ES-4, 1-3, 4-32, 4-100, 4-101, 4-245, 4-246, 5-6

volatile organic compounds (VOC)..... 4-120, 4-123, 4-124, 4-125, 4-126, 4-127, 4-129, 4-130, 4-132, 4-135, 4-136, 4-137, 4-139, 4-140, 4-144, 4-148, 4-149

Walter Umphrey State Park..... 4-97, 4-99, 5-6

water withdrawal..... 4-241, 5-3

waterbodies..... ES-7, 1-4, 1-6, 1-15, 2-18, 2-27, 2-28, 4-10, 4-15, 4-29, 4-30, 4-31, 4-32, 4-33, 4-34, 4-36, 4-37, 4-38, 4-39, 4-45, 4-46, 4-67, 4-68, 4-72, 4-73, 4-95, 4-96, 4-241, 4-244, 5-5

Waterway Suitability Assessment (WSA)..... 1-5, 4-111, 4-225, 5-8

well..... ES-3, 1-10, 1-15, 2-7, 2-21, 2-32, 2-34, 2-36, 3-1, 3-6, 3-10, 3-12, 3-25, 4-1, 4-3, 4-4, 4-8, 4-22, 4-23, 4-24, 4-28, 4-29, 4-35, 4-41, 4-54, 4-63, 4-65, 4-83, 4-88, 4-95, 4-97, 4-99, 4-110, 4-113, 4-114, 4-128, 4-130, 4-134, 4-146, 4-148, 4-151, 4-154, 4-161,

4-163, 4-171, 4-172, 4-173, 4-175, 4-180, 4-181, 4-184, 4-185, 4-187, 4-188, 4-189, 4-200, 4-222, 4-224, 4-226, 4-227, 4-228, 4-230, 4-232, 4-244, 5-2, 5-5, 5-10, 5-12, 5-16, 5-17, 5-18, 5-19

wellhead protection area 4-23, 5-2

Wetland and Waterbody Construction and Mitigation Procedures (Procedures) ES-4, ES-7, 2-19, 2-20, 2-21, 2-23, 2-26, 2-27, 2-28, 2-32, 2-34, 2-37, 4-25, 4-27, 4-28, 4-34, 4-35, 4-36, 4-37, 4-38, 4-39, 4-46, 4-51, 4-52, 4-58, 4-62, 4-64, 4-65, 4-70, 4-73, 4-77, 4-78, 4-88, 4-239, 4-240, 4-241, 4-243, 5-1, 5-2, 5-3, 5-4, 5-5

wetlands ES-3, ES-4, ES-7, 1-3, 1-4, 1-5, 1-7, 1-15, 2-13, 2-18, 2-21, 2-25, 2-26, 2-27, 2-28, 2-31, 3-4, 3-6, 3-14, 3-18, 3-20, 3-22, 3-23, 3-25, 3-26, 3-29, 4-12, 4-14, 4-15, 4-25, 4-27, 4-29, 4-34, 4-36, 4-39, 4-40, 4-41, 4-42, 4-43, 4-44, 4-46, 4-47, 4-48, 4-50, 4-51, 4-52, 4-53, 4-54, 4-57, 4-58, 4-59, 4-60, 4-61, 4-62, 4-63, 4-64, 4-74, 4-76, 4-78, 4-80, 4-86, 4-88, 4-89, 4-92, 4-94, 4-98, 4-152, 4-241, 4-242, 4-243, 4-245, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-10, 5-11

white shrimp.....4-74, 4-75, 4-76, 4-78

wildlife ES-3, 1-3, 4-46, 4-51, 4-60, 4-61, 4-62, 4-63, 4-64, 4-65, 4-67, 4-98, 4-242, 4-243, 5-4, 5-5

wildlife management area 3-25, 4-12, 4-53, 4-61, 4-67, 4-84, 4-97, 4-98, 4-242, 5-3, 5-6

APPENDIX N
References

APPENDIX N – REFERENCES

ABS Consulting (ABSC). 2004. Risk Consulting Division, "Seismic Hazard Assessment of the Golden Pass LNG Terminal Site, Texas," ExxonMobil Development Company, Golden Pass, Sabine, Texas.

Alpine Geophysics, LLC (AG). 2011. Ozone Impact Analysis of the Proposed Cheniere Sabine Pass Liquefaction Facility, prepared by Dennis McNally and Cyndi Loomis, March 24, 2011.

American Hospital Directory. 2012. Available at: http://www.ahd.com/states/hospital_LA.html. Accessed: September 28, 2014.

American Industrial Hygiene Association. 2013. ERPG/WEEL Handbook. Available at: http://www.aiha.org/get-involved/AIHAGuidelineFoundation/EmergencyResponsePlanningGuidelines. Accessed: August 24, 2015.

Ashworth, J. B. and J. Hopkins. 1995. Aquifers of Texas. (Texas Water Development Board Report 345.) 63 pp.

Association of State Wetland Managers (ASWM). 2011. 401 Certification Program Summary – Louisiana. Available at: http://www.aswm.org/~aswm/pdf_lib/401_cert/louisiana_case_study.pdf. Accessed September 23, 2014.

Audubon. 2014a. Central Flyway. Available at: http://conservation.audubon.org/central-flyway. Accessed July 2014.

Audubon. 2014b. Mississippi Flyway. Available at: http://conservation.audubon.org/mississippi-flyway. Accessed July 2014.

Audubon. 2014c. Atlantic Flyway. Available at: http://conservation.audubon.org/atlantic-flyway. Accessed July 2014.

Audubon. 2014d. Reddish Egret. Available at: http://birds.audubon.org/species/redegr. Accessed July 2014.

Audubon. 2014e. Swallow-tailed Kite. Available at: http://birds.audubon.org/species/swakit. Accessed July 2014.

Audubon. 2014f. White-faced Ibis. Available at: http://birds.audubon.org/species/whiibi2. Accessed July 2014.

Audubon. 2014g. Wood Stork. Available at: http://birds.audubon.org/species/woosto. Accessed July 2014.

Bates, R. L. and J. A. Jackson. 1984. Dictionary of Geological Terms, 3rd Edition. Anchor Books, New York.

Benchmark Ecological Services, Inc. (BES). 2013a. Golden Pass LNG Export Terminal – GPX Project Wetland Determination Report, Jefferson County, Texas.

Benchmark Ecological Services, Inc. (BES). 2013b. GPX Pipeline – GPX Project Wetland Determination Report, Orange County, Texas and Calcasieu Parish, Louisiana.

Benchmark Ecological Services, Inc. (BES). 2013c. Golden Pass LNG Export Terminal – GPX Project Threatened and Endangered Species Evaluation – DRAFT Jefferson County, Texas.

Benchmark Ecological Services, Inc. (BES). 2013d. GPX Pipeline – GPX Project Threatened and Endangered Species Evaluation, Orange County, Texas and Calcasieu Parish, Louisiana.

Benchmark Ecological Services, Inc. (BES). 2015. Sediment Sampling and Analysis Report – Golden Pass Products LNG Terminal Ship Slip, Sabine Pass, Texas. Prepared for Golden Pass Products LLC & Golden Pass Pipeline LLC. On behalf of: exp Energy Services, Inc. June.

California Department of Transportation (Caltrans). 2009. Technical Noise Supplement. Available at: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf.

Caswell, S. J., and J. Jakus. (Caswell and Jakus). 1977. Role of Land Use Planning in Noise Control. Available at: http://www.treesearch.fs.fed.us/pubs/11556.

Cheniere Energy Partners (Cheniere Energy). 2014. Cheniere and EDF Sign 20-Year LNG Sale and Purchase Agreement. Available at: http://phx.corporate-ir.net/phoenix.zhtml?c=101667&p=irol-newsArticle&ID=1948639&highlight=. Accessed July 2014.

Chicago Bridge & Iron Company (CB&I). 2014. GPX Terminal Noise Report, Revision A. March 27.

Chowdhury, A. H., and M. Turco. 2006. Geology of the Gulf Coast Aquifer, Texas. Chapter 2 of Texas Water Development Board Report 365. Aquifers of the Gulf Coast of Texas. February.. Available at: http://www.twdb.state.tx.us/publications/reports/numbered_reports/doc/R365/R365_Composite.pdf. Accessed August 5, 2014.

City of Port Arthur (CPA). 2012. Port Arthur Annual Water Quality Report. Reporting Year 2012. Available at: http://www.portarthur.net/page.cfm?id=47. Accessed August 5, 2014.

Cornell University. 2011a. The Cornell Lab of Ornithology, All about Birds. Available at: http://www.allaboutbirds.org/Page.aspx?pid=1189. Accessed July 2014.

Cornell University. 2011b. The Cornell Lab of Ornithology, All about Birds: Piping Plover. Available at: http://www.allaboutbirds.org/guide/piping_plover/id. Accessed July 2014.

Council on Environmental Quality (CEQ). 1997a. Environmental Justice, Guidance under the National Environmental Policy Act. Executive Office of the President, Washington, DC.

Council on Environmental Quality (CEQ). 1997b. Considering Cumulative Effects under the Environmental Policy Act. January.

Council on Environmental Quality (CEQ). 2005. Guidance on the Consideration of Past Actions in Cumulative Effects Analysis. Memorandum from J. L. Connaughton, Chairman, Executive Office of the President –Council on Environmental Quality. June 24.

Council on Environmental Quality (CEQ). 2014. Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews. Federal Register 77802 (Volume 79, No. 247.) December 24.

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C.

Dokka, R. K., K. Shinkle, and J. Heltz. 2003. Major Subsidence of the Modern Louisiana Coast. Geological Society of America Abstracts with Programs. Geological Society of America, Boulder, Colorado.

Dow Piniak, W. E., D. A. Mann, T. T. Jones, S. A. Eckert, and C. A. Harms. 2014a. In-water and In-air Hearing Sensitivity of the Juvenile Green Sea Turtle (*Chelonia mydas*). 34th Annual Symposium on Sea Turtle Biology and Conservation, New Orleans, Louisiana.

Dow Piniak, W. E., S. A. Eckert, D. A. Mann, and J. A. Horrocks. 2014b. Amphibious Hearing in Hatchling Hawksbill Sea Turtles (*Eretmochelys imbricata*). 34th Annual Symposium on Sea Turtle Biology and Conservation, New Orleans, LA.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. (Technical Report Y-87-1.) U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Federal Emergency Management Agency (FEMA). 2013. Map Service Center. Available at: https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1. Accessed July 2014.

Federal Energy Regulatory Commission (FERC). 2005. Final Environmental Impact Statement, Golden Pass LNG Terminal and Pipeline Project: Golden Pass LNG Terminal L.P., Golden Pass Pipeline, L.P. Federal Energy Regulatory Commission. Office of Energy Projects, Washington, D.C. Docket No. CP04-386-000, Docket Nos. CP04-400-000, CP04-401-000, CP04-402-000. FERC/EIS-0180F. June 2005. Available at: http://elibrary.ferc.gov/idmws/File_list.asp?document_id=4309499. Accessed July 2014.

Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. (FTA-VA-90-1003-06.) Available at: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration _Manual.pdf.

Fossilworks. 2013. The Paleobiology Database. Available at: http://fossilworks.org/bridge.pl. Accessed July 2014.

Fugro Consultants, Inc. (Fugro). 2004. Geotechnical Study: LNG Tanks. ExxonMobil Development Company, Sabine Pass, Texas. (Report No. 0415-0963-1.) March 22.

Fugro Consultants, Inc. (Fugro). 2007a. Geotechnical Study: Ship Slip Slope Stability Analysis. Chicago Bridge and Iron Company, Sabine Pass, Texas. (Report No. 0415-1548-1.)

Fugro Consultants, Inc. (Fugro). 2007b. Geotechnical Study: Ship Slip Slope Stability Analysis. Chicago Bridge and Iron Company, Sabine Pass, Texas. (Report No. 0415-1548-2.)

Fugro Consultants, Inc. (Fugro). 2013. Pre-FEED Level Geotechnical Study. ExxonMobil Development Company, Sabine Pass, Texas. (Report No. 04.10120315-2.) July 26.

Fugro Consultants, Inc. (Fugro). 2014a. Detailed Geotechnical Study, Golden Pass LNG Export Facility. Golden Pass Products, LLC, Sabine Pass, Texas. (Report No. 04. 10140035.) September 17.

Fugro Consultants, Inc. (Fugro). 2014b. Seismic Hazard Assessment. Golden Pass LNG Export Facility. Golden Pass Products LLC, Sabine Pass, Texas. (Report No. 04. 10130245.) June 25.

Fugro Consultants, Inc. (Fugro). 2014c. Geotechnical Fault Study. Golden Pass Products LLC, Sabine Pass, Texas. (Report No. 04. 10120315.) March 6.

Gibeaut, J. C., W. A. White, and T. A. Tremblay. 2000. Coastal Hazards Atlas of Texas: a Tool for Hurricane Preparedness and Coastal Management Volume 1. Bureau of Economic Geology. June. Available at: http://www.beg.utexas.edu/coastal/presentations_reports/hazardsatlas_v1_2000.pdf. Accessed January 2014.

Gulf of Mexico Fishery Management Council (GMFMC). 2010a. Fishery Management Plans and Amendments. Available at: http://www.gulfcouncil.org/fishery_management_plans/index.php. Accessed July 2014.

Gulf of Mexico Fishery Management Council (GMFMC). 2010b. Final Report Gulf of Mexico Fishery Management Council – 5-Year Review of the Final Generic Amendment Number 3 Addressing Essential Fish Habitat Requirements, Habitat Areas of Particular Concern, and Adverse Effects of Fishing in the Fishery Management Plans of the Gulf of Mexico. Available at: http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/EFH%205-Year%20Review%20Final%2010-10.pdf. Accessed July 2014.

Heede, Richard. 2006. LNG Supply Chain Greenhouse Gas Emissions for the Cabrillo Deepwater Port: Natural Gas from Australia to California. Climate Mitigation Services. May 17, 2006.

Herps of Texas. 2014a. Herps of Texas. Available at: http://www.herpsoftexas.org/. Accessed July 2014.

Herps of Texas. 2014b. Alligator Snapping Turtle. Available at: http://www.herpsoftexas.org/content/alligator-snapping-turtle. Accessed July 2014.

Hoover and Keith (H&K). 2014a. MP 1 Compressor Station for the Golden Pass Products LNG Export Project. Results of an Ambient Sound Survey & Acoustical Analyses. (Report No. 2987 Revision 5.) March 21.

Hoover and Keith (H&K). 2014b. MP 33 Compressor Station for the Golden Pass Products LNG Export Project, Results of an Ambient Sound Survey & Acoustical Analyses. (Report No. 2988 Revision 2.) March 21.

Hoover and Keith (H&K). 2014c. MP 66 Compressor Station for the Golden Pass Products LNG Export Project, Results of an Ambient Sound Survey & Acoustical Analyses. (Report No. 2989 Revision 4.) September 3.

Hoover and Keith (H&K). 2014d. Calcasieu Loop HDD for the Golden Pass Products LNG Export Project, Results of an Ambient Sound Survey & Acoustical Analyses. (Report No. 2993.) March 20.

Hoover and Keith (H&K). 2015. Acoustics and Noise Control Engineering, Environmental Sound Level Assessment for Flare Operation at the Golden Pass LNG Liquefaction Facility. October 6.

HotelsMotels.info. 2014. Hotels and Motels. Available at: http://www.hotelmotels.info/Counties/. Accessed September 28, 2014.

Index Mundi. 2014a. Texas average household size, by county. Available at: http://www.indexmundi.com/facts/united-states/quick-facts/texas/average-household-size#map.

Index Mundi. 2014b. Louisiana average household size, by county. Available at: http://www.indexmundi.com/facts/united-states/quick-facts/louisiana/average-household-size#map.

Larson, S. C., M. J. Van Den Avyle, and E. L. Bozeman, Jr. 1989. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (South Atlantic)–brown shrimp. U.S. Fish Wildl . Serv. Biol . Rep. 82(11.90). (U.S. Army Corps of Engineers TR EL-82-4.) 14 pp. Available at: http://www.nwrc.usgs.gov/wdb/pub/species_profiles/82_11-090.pdf.

Louisiana Administrative Code (LAC). 2014. Title 33 Environmental Quality, Part III Air. Available at: http://www.deq.louisiana.gov/portal/Portals/0/planning/regs/title33/33v03-201403.pdf.

Louisiana Department of Environmental Quality (LDEQ). 1996. 1996 305b Appendix F. Major Aquifer Systems of Louisiana. Available at: http://www.deq.louisiana.gov/static/305b/1996/305b-f.htm. Accessed August 4, 2014.

Louisiana Department of Environmental Quality (LDEQ). 2003a. Baseline Monitoring Program, Fiscal Years 2001 – 2003 (June 2000 through June 2003). Triennial Summary Report, 2003 for the Environmental Technology Division of the Louisiana Department of Environmental Quality. Available at: http://www.deq.louisiana.gov/portal/Portals/0/evaluation/aeps/Triennial%20Summary%20Report%202003.pdf. Accessed August 5, 2014.

Louisiana Department of Environmental Quality (LDEQ). 2003b. Chicot Aquifer Summary Baseline Monitoring Project, FY 2002 – Appendix 10 of the Triennial Summary Report, 2003. Available at: http://www.deq.louisiana.gov/portal/PORTALS/0/evaluation/aeps/10ChicotAquiferSummary03.pdf. Accessed August 5, 2014.

Louisiana Department of Environmental Quality (LDEQ). 2006. Air Quality Modeling Procedures. August 2006. Available at: http://www.deq.louisiana.gov/portal/Portals/0/permits/air/Air%20Quality%20Modeling%20Procedures.pdf.

Louisiana Department of Environmental Quality (LDEQ). 2014a. Drinking Water Protection Program History. Available at: http://www.deq.louisiana.gov/portal/PROGRAMS/DrinkingWaterProtectionProgram/ProgramHistory.aspx. Accessed August 5, 2014.

Louisiana Department of Environmental Quality (LDEQ). 2014b. Email correspondence between Golden Pass representative and Jesse Means (LDEQ). January 17, 2014.

Louisiana Department of Environmental Quality (LDEQ) 2014c. Ambient Air Monitoring Program. Air Monitoring Sites. Available at: http://www.deq.louisiana.gov/portal/DIVISIONS/Assessment/AirFieldServices/AmbientAirMonitoringProgram/AirMonitoringSites.aspx.

Louisiana Department of Natural Resources (LDNR). 2013. SONRIS Interactive Maps – Water Wells Registration. Available at: http://sonris-www.dnr.state.la.us/gis/agsweb/IE/JSViewer/index.html?TemplateID=181. Accessed August 5, 2014.

Louisiana Department of Wildlife and Fisheries (LDWF). 2013a. Louisiana Natural and Scenic Rivers Descriptions and Map. Available at: http://www.wlf.louisiana.gov/louisiana-natural-and-scenic-rivers-descriptions-and-map. Accessed August 5, 2014.

Louisiana Department of Wildlife and Fisheries (LDWF). 2013b. Letter dated October 1, from Kyle Balkum, LDWF Biologist Program Manager, to Kim Bose, FERC.

Louisiana Department of Wildlife and Fisheries (LDWF). 2014. Rare Animals Tracking List and Fact Sheets. Available at: http://www.wlf.louisiana.gov/wildlife/rare-animals-fact-sheets. Accessed July 2014.

Louisiana Ground Water Resources Commission (LGWRC). 2012. Managing Louisiana's Groundwater Resources, with Supplemental Information on Surface Water Resources. An Interim Report to the Louisiana Legislature. March 15. Available at: http://dnr.louisiana.gov/assets/docs/conservation/groundwater/12.Final.GW.Report.pdf. Accessed August 5, 2014.

Louisiana State University (LSU). 2013. SURGEDAT: The World's Storm Surge Data Center. Available at: http://surge.srcc.lsu.edu/. Accessed July 2014.

Minerals Management Service (MMS). 2004. Review of Existing and Emerging Environmentally Friendly Offshore Dredging Technologies. Prepared for the Leasing Division, Sand and Gravel Unit, Minerals Management Service, U.S. Department of Interior, Herndon, Virginia. Prepared by W.F. Baird & Associates, Ltd. and Research Planning, Inc.

Municipal Code Corporation (MCC). 2014a. Code of Ordinances. City of Port Arthur, Texas. Available at: https://library.municode.com/index.aspx?clientId=11444.

Municipal Code Corporation (MCC). 2014b. Code of Ordinances. Parish of Calcasieu, Louisiana. Available at: https://library.municode.com/index.aspx?clientId=10499.

Muncy, R. J. 1984. Species profiles : 1ife histories and environmental requirements of coastal fishes and invertebrates (South Atlantic)–white shrimp. U.S. Fish Wildl. Serv. FWS/OBS-82/11.27. (U.S. Army Corps of Engineers, TR EL-82-4.) 19 pp. Available at: http://www.nwrc.usgs.gov/wdb/pub/species_profiles/82_11-027.pdf

National Center for Education Statistics. 2014. Search for Public Schools. Available at: http://nces.ed.gov/ccd/schoolsearch/. Accessed September 28, 2014.

National Climatic Data Center (NCDC). 2010. 1981–2010 U.S. Climate Normals. Available at: http://www.ncdc.noaa.gov/data-access/land-based-station-data/land-based-datasets/climate-normals/1981-2010-normals-data.

National Energy Technology Laboratory (NETL). 2014. Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States. DOE/NETL-2014/1649. Available online at http://energy.gov/fe/downloads/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states. Accessed June 2016.

National Oceanic and Atmospheric Administration (NOAA). 2005. "Hurricane Rita", NOAA's National Climate Data Center, Asheville, NC. Available at: http://www.ncdc.noaa.gov/extremeevents/specialreports/Hurricane-Rita2005.pdf. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2006. Sea Turtle and Smalltooth Sawfish Construction Conditions. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/sea_turtle_and_smalltooth_sawfish_construction_conditions_3-23-06.pdf. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2008. Vessel Strike Avoidance Measures and Reporting for Mariners, NOAA Fisheries Service, Southeast Region. Available at: http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/copy_of_vessel_strike_avoidance_february_2008.pdf. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2009. Tropical Cyclone Report – Hurricane Ike (AL092008). Available at: http://www.nhc.noaa.gov/pdf/TCR-AL092008_Ike_3May10.pdf. Accessed July 2014.

NOAA National Weather Service, Office of Climate, Water and Weather Services (NOAA). 2012. Summary of Natural Hazard Statistics for 2011 in the United States, May 8, 2012, http://www.nws.noaa.gov/om/hazstats/sum11.pdf.

National Oceanic and Atmospheric Administration (NOAA). 2013a. Historical Hurricane Tracks. Available at: http://www.csc.noaa.gov/hurricanes/#app=7490&3e3d-selectedIndex=1. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2013b. National Climatic Data Center – Storm Event Database. Available at: http://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=48%2CTEXAS. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2013c. Essential Habitat Mapper. Available at: http://www.habitat.noaa.gov/protection/efh/efhmapper. Accessed October 2013.

National Oceanic and Atmospheric Administration (NOAA). 2014a. National Weather Service National Hurricane Center. Storm Surge Overview. Available at: http://www.nhc.noaa.gov/surge/. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014b. Fishwatch U.S. Seafood Facts – Brown Shrimp. Available at: http://www.fishwatch.gov/seafood_profiles/species/shrimp/species_pages/brown_shrimp.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014c. Fishwatch U.S. Seafood Facts – White Shrimp. Available at: http://www.fishwatch.gov/seafood_profiles/species/shrimp/species_pages/white_shrimp.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014d. Green Sea Turtle (*Chelonia mydas*). Available at: http://www.nmfs.noaa.gov/pr/species/turtles/green.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014e. Hawksbill Sea Turtle (*Eretmochelys imbricata*). Available at: http://www.nmfs.noaa.gov/pr/species/turtles/hawksbill.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014f. Kemp's Ridley Sea Turtle (*Lepidochelys kempii*). Available at: http://www.nmfs.noaa.gov/pr/species/turtles/kempsridley.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014g. Leatherback Sea Turtle (*Dermochelys coriacea*). Available at: http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm. Accessed July 2014.

National Oceanic and Atmospheric Administration (NOAA). 2014h. Loggerhead Sea Turtle (*Caretta caretta*). Available at: http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm. Accessed July 2014.

National Vital Statistics Reports. 2012. Deaths: Preliminary Data for 2011, Vol. 61, No 6, October 10, 2012.

National Wildlife Federation (NWF). 2014. Alligator Snapping Turtle. Available at: http://www.nwf.org/wildlife/wildlife-library/amphibians-reptiles-and-fish/alligator-snapping-turtle.aspx. Accessed July 2014.

Nationwide Environmental Title Research, LLC (NETR). 2013. EPA Environmental Hazard Site Locations. Available at: http://environment.netronline.com/. Accessed August 2014.

Natural Science Research Laboratory (NSRL). 2014. Rafinesque's Big-eared Bat. Available at: http://www.nsrl.ttu.edu/tmot1/plecrafi.htm. Accessed July 2014.

Nexant ChemSystems. 2004. Advances in LNG Technologies. (PERP [Process Evaluation/Research Planning] Report 03/04S10.) October.

Perryman Group. 2012. The Socioeconomic Impact of Authorizing Exports of Liquefied Natural Gas from the Proposed Golden Pass Products LLC Facilities in Sabine Pass, Texas, on Business Activity in Jefferson County, the Surrounding Region, and the United States. Fossil Energy Docket No. FE12-156-LNG. Available at: http://www.fossil.energy.gov/programs/gasregulation/authorizations/2012_applications/12_156_lng.pdf.

Pierorazio, A. J., K. Thomas, Q. A. Baker, and D. E. Ketchum. 2005. An Update to the Baker–Strehlow–Tang Vapor Cloud Explosion Prediction. Methodology Flame Speed Table, Process Safety Progress. (Vol.24, No.1.) March.

Pipeline and Hazardous Materials Safety Administration (PHMSA). 2014. Significant Pipeline Incidents, National Gas Transmission: Significant Incidents Summary Statistics: 1994–2013. Available at: http://primis.phmsa.dot.gov/comm/reports/safety/SigPSIDet_1994_2013_US.html?nocache=8649#_ngtrans.

Renken, R. 1998. Arkansas, Louisiana, Mississippi, in Groundwater Atlas of the United States. (U.S. Geological Survey HA 730-F.) Available at: http://capp.water.usgs.gov/gwa/ch_f/index.html. Accessed August 5, 2014.

Sabine Neches Navigation District (SNND). 2014. The Waterway. Available at: http://navigationdistrict.org/about/the-waterway. Accessed August 5, 2014.

Sabine River Authority of Texas (SRAT). 1999. Comprehensive Sabine Watershed Management Plan. (SRA96425.) Available at: http://www.sratx.org/srwmp/comprehensive_plan/final_report/pdf/CSWMP.pdf. Accessed August 5, 2014.

Scott, T., J. Hughey, and J. Picklesimer. 2009a. Cultural Resource Management Survey of the Golden Pass LNG Pipeline Project in Jefferson, Orange, and Newton Counties, Texas. Report prepared for AMEC Paragon, Inc., Houston and Golden Pass Pipeline, LLC. FERC Docket No. CP04-400-000, -001, - 002. HRA Gray & Pape, LLC, Houston.

Scott, T., J. Hughey, and J. Picklesimer. 2009b. Cultural Resource Management Survey of the Golden Pass Pipeline Project in Calcasieu Parish, Louisiana. Report prepared for AMEC Paragon, Inc., Houston and Golden Pass Pipeline, LLC. FERC Docket No. CP04-400-000, -001, -002. HRA Gray & Pape, LLC, Houston.

Scott, T. 2013a. Assessment of Property Proposed for a Terminal Station in Jefferson County, Texas in Association with the Proposed Golden Pass Export Project. Draft report prepared for exp Energy Services, Inc., Houston. HRA Gray & Pape, LLC, Houston.

Scott, T. 2013b. Assessment of Property Proposed for the Golden Pass North Loop Pipeline in Calcasieu Parish, Louisiana in Association with the Proposed Golden Pass Export Project. Draft report prepared for exp Energy Services, Inc., Houston. HRA Gray & Pape, LLC, Houston.

Scott, T. 2013c. Intensive Pedestrian Cultural Resources Survey of the Proposed HPL Texoma Compressor Station for the Golden Pass GPX Project in Orange County, Texas. Draft report prepared for exp Energy Services, Inc., Houston. HRA Gray & Pape, LLC, Houston.

Society of Fire Protection Engineers. 2008. SFPE Handbook of Fire Protection Engineering. 4th edition. National Fire Protection Association.

Stevenson, D. A., and R. P. McCulloh. 2001. Earthquakes in Louisiana. Public Information Series 7. Louisiana Geological Survey, Baton Rouge, Louisiana, USA. Available at: http://www.lgs.lsu.edu/deploy/uploads/7earthquakes.pdf. Accessed July 2014.

Sutherland. 2014. Magnolia LNG Signs Tolling Agreement Term Sheet with AES Latin American Development. LNW Law Blog. Available at: http://www.lnglawblog.com/2014/03/magnolia-lng-signs-tolling-agreement-term-sheet-with-aes-latin-american-development/.

Tax-Rates.org. 2014. 2014 Texas Sales Tax By County. Available at: http://www.tax-rates.org/texas/sales-tax-by-county. Accessed September 28, 2014.

Texas Administrative Code (TAC). 2014. Title 30 Environmental Quality - Air Permitting. Available at: http://www.tceq.state.tx.us/permitting/air/rules/state/statehp.html.

Texas Coastal Management Program (TCMP). 2012. 2012 Annual Report. Available at: http://www.glo.texas.gov/what-we-do/caring-for-the-coast/publications/2012-cmp-annual-report.pdf. Accessed on August 6, 2014.

Texas Commission on Environmental Quality (TCEQ). 2004. State Water Quality Certification of Section 404 Permits. Available at: https://www.tceq.texas.gov/assets/public/permitting/assess/401cert/401cov.pdf. Accessed September 23, 2014.

Texas Commission on Environmental Quality (TCEQ). 2010. Groundwater Classification. TCEQ Regulatory Guidance. Remediation Division. RG-366/TRRP-8. Revised March 2010. Available at: http://www.tceq.texas.gov/publications/rg/rg-366_trrp_08.html. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2012a. 2012 Texas Integrated Report – Texas 303(d) List (Category 5). Available at: http://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/12twqi/2012_303d.pdf. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2013a. Priority Groundwater Management Areas (PGMAs). Map. Available at: http://www.tceq.state.tx.us/assets/public/permitting/watersupply/groundwater/maps/pgma_areas.pdf. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2013b. Understanding General Conformity in Texas. Available at: https://www.tceq.texas.gov/airquality/mobilesource/gc.html.

Texas Commission on Environmental Quality (TCEQ). 2014a. What is a Groundwater Conservation District (GCD)? Available at: http://www.tceq.state.tx.us/assets/public/permitting/watersupply/groundwater/maps/gcd_text.pdf. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2014b. Priority Groundwater Management Areas. Available at: http://www.tceq.state.tx.us/groundwater/groundwater/pgma.html. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2014c. Texas Groundwater Conservation Districts (August 2014). Map. Available at: http://www.tceq.state.tx.us/assets/public/permitting/watersupply/groundwater/maps/gcdmap.pdf. Accessed August 5, 2014.

Texas Commission on Environmental Quality (TCEQ). 2014d. 401 Certification Reviews. Available at: https://www.tceq.texas.gov/permitting/401certification/401certification_definition.html. Accessed August 6, 2014.

Texas Commission on Environmental Quality (TCEQ). 2014e. Geographical Texas Air Monitoring. Available at: http://tceq4apmgwebp1.tceq.texas.gov:8080/geotam/.

Texas Department of State Health Services. 2012. Hospital Characteristics 2012. Available at: http://www.dshs.state.tx.us/THCIC/Publications/Hospitals/IQIReport/IQIReport.shtm. Accessed September 28, 2014.

Texas General Land Office (GLO). 2013. Texas Critical Erosion Areas. Available at: http://koordinates.com/layer/821-texas-critical-erosion-areas/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 1999. Vegetation Layers. Available at: http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_lf_k0700_0167e.pdf. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2005. Texas Wildlife Identification Guide. Available at: http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_k0700_0517.pdf. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2013a. Water Planning Data for Region I (East Texas). Available at: http://www.tpwd.state.tx.us/landwater/water/environconcerns/water_quality/sigsegs/regioni.phtml. Accessed August 5, 2014.

Texas Parks and Wildlife Department (TPWD). 2013b. Letter dated October 19, from Rebecca Hensley, Coastal Fisheries Division, to Kim Bose, FERC.

Texas Parks and Wildlife Department (TPWD). 2013c. Rare, Threatened, and Endangered Species of Texas. Available at:http://tpwd.texas.gov/gis/rtest/. Accessed July 2016.

Texas Parks and Wildlife Department (TPWD). 2014a. Red Drum (*Sciaenops ocellatus*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/reddrum/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014b. Piping Plover (*Charadrius melodus*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/piplover/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014c. American Alligator (*Alligator mississippiensis*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/americanalligator/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014d. Peregrine Falcon (*Falco peregrinus*). Available at: http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_0013_peregrine_falcon.pdf. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014e. Reddish Egret (*Egretta rufescens*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/reddishegret/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014f. Swallow-tailed Kite (*Elanoides forficatus*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/birding/swallow_tailed_kite/interest_description_location/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014g. White-faced Ibis (*Plegadis chihi*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/ibis/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014h. Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/rafinesque/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014i. Texas Diamondback Terrapin (*Malaclemys terrapin littoralis*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/terrapin/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014j. Gulf Salt Marsh Snake (*Nerodia clarkii*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/gulfsnake/. Accessed July 2014.

Texas Parks and Wildlife Department (TPWD). 2014k. Timber Rattlesnake (*Crotalus horridus*). Available at: http://www.tpwd.state.tx.us/huntwild/wild/species/timberrattlesnake/. Accessed July 2014.

Texas Water Development Board (TWDB). 2006. Aquifers of the Gulf Coast of Texas. Report 365. Available at: https://www.twdb.state.tx.us/publications/reports/numbered_reports/doc/R365/R365_Composite.pdf. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2012. 2012 State Water Plan. Available at: http://www.twdb.state.tx.us/waterplanning/swp/2012/index.asp. Accessed January 2014.

Texas Water Development Board (TWDB). 2013. TWDB Well Location Grid. Available at: http://www.twdb.state.tx.us/mapping/gisdata.asp. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2014a. Texas Aquifers. Available at: http://www.twdb.state.tx.us/groundwater/aquifer/. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2014b. Major Aquifers. Map. Available at: http://www.twdb.state.tx.us/groundwater/aquifer/major.asp. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2014c. Minor Aquifers. Map. Available at: http://www.twdb.state.tx.us/groundwater/aquifer/minor.asp. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2014d. Gulf Coast Aquifer. Available at: http://www.twdb.texas.gov/groundwater/aquifer/majors/gulf-coast.asp. Accessed August 5, 2014.

Texas Water Development Board (TWDB). 2014e. Groundwater Conservation Districts of Texas. Map. Available at: http://www.twdb.state.tx.us/mapping/doc/maps/GCDs_8x11.pdf. Accessed August 5, 2014.

Trinity Consultants (TC). 2014. Ozone Impact Assessment Report, Golden Pass Products LNG Export Project. July 9.

Tuttle, M. C. 2014. Marine Archaeological Survey exemption at the Golden Pass LNG Terminal Project, Jefferson County, Texas. Letter report prepared for Golden Pass Pipeline, LLC. HRA Gray & Pape, LLC., Houston.

University of Texas at Austin Institute for Geophysics. 2014. Texas Earthquakes. Available at: http://www.ig.utexas.edu/research/seismology/TXEQ/index.html. Accessed July 2014.

URS Corporation. 2005. Golden Pass LNG Terminal Project, Dredge Material Evaluation for Beneficial Use – Pintail Flats. Report prepared for Golden Pass LNG Terminal LP, April 2005.

USA Cops. 2014. Available at: http://www.usacops.com/. Accessed September 28, 2014.

USA Fire and Rescue. 2014. Available at: http://www.usafireandrescue.com/. Accessed September 28, 2014.

U.S. Army Corps of Engineers (COE). 2012a. Sabine-Neches Waterway, TX. Fact Sheet. Available at: http://www.swd.usace.army.mil/Portals/42/docs/civilworks/Fact%20Sheets/Galveston/FY13%20SNWW,%20TX.pdf. Accessed August 5, 2014.

U.S. Army Corp of Engineers (COE). 2012b. Sabine-Neches Waterway, TX – Fact Sheet as of February 21, 2012. Available at: http://www.swd.usace.army.mil/Portals/42/docs/civilworks/Fact%20Sheets/Galveston/FY13%20SNWW,%20TX.pdf. Accessed October 2013.

U.S. Army Corps of Engineers (COE). 2013. Waterborne Commerce Statistics Center. 2013 Waterborne Commerce of the United States. Part 2. Available at: http://www.navigationdatacenter.us/wcsc/webpub13/Part2_WWYs_tonsbyTT_Dr_Yr_commCY2013-2009.htm. Accessed August 21, 2015.

U.S. Army Corps of Engineers (COE). 2014. New Orleans District. Coastal Use Permit by Louisiana Coastal Management Division. Available at: http://www.mvn.usace.army.mil/Missions/Regulatory/Permits/WheretoSubmitYourPermitApplicationDrawing.aspx. Accessed August 6, 2014.

U.S. Bureau of Labor Statistics. 2014. Consumer Price Index – All Urban Consumers. Available at http://www.bls.gov/cpi/. Accessed June 2014.

U.S. Census Bureau. 2000. 2000 Census. Available at: http://www.census.gov/main/www/cen2000.html?.

U.S. Census Bureau. 2010. 2010 Census. Available at: http://www.census.gov/2010census/.

U.S. Census Bureau. 2012. American Community Survey. 2008–2012 American Community Survey 5-year estimates. Available at: http://www.census.gov/programs-surveys/acs/.

U.S. Census Bureau. 2013. American Community Survey. 2009–2013 American Community Survey 5-year estimates. Available at: http://www.census.gov/programs-surveys/acs/.

U.S. Department of Agriculture (USDA). 2015. Introduced, Invasive, and Noxious Plants. Available at: http://plants.usda.gov/java/noxComposite. Accessed August 24, 2015.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 1988. Soil Survey of Calcasieu Parish, Louisiana. Available at: http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/louisiana/LA019/0/calcasieu.pdf. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 1996. Soil Survey of Jefferson and Orange Counties, Texas. Available at: http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/texas/TX623/0/Manuscript.pdf. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2012a. Ecological and Interpretive Groups. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_054226#02. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2012b. Hydric Soils - Introduction. Available at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/hydric/?cid=nrcs142p2_053961. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2014a. Soil Survey Geographic (SSURGO) Database. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2014b. Official Soil Series Descriptions (OSDs) with series extent mapping capabilities. Available at: https://soilseries.sc.egov.usda.gov/. Accessed August 2014.

U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). 2014c. Keys to Soil Taxonomy. Soil Survey Staff. Twelfth Edition.

U.S. Department of Energy (DOE). 2014. Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States. May 29, 2014. Available at http://energy.gov/sites/prod/files/2014/05/f16/Addendum_0.pdf. Accessed July 2016.

U.S. Department of Labor. 2013. Bureau of Labor Statistics. Available at: http://www.bls.gov/data/.

U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (DOT PHMSA). 2013 Significant Pipeline Incidents Summary Statistics: 1994–2013, May 2, 2013, http://primis.phmsa.dot.gov/comm/reports/safety/sigpsi.html?nocache=3174#_ngtrans.

U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (DOT PHMSA). 2014. Pipeline Safety Stakeholder Communications, Significant Pipeline Incidents. Available at: http://primis.phmsa.dot.gov/comm/reports/safety/cpi.html?nocache=4675#_ngtrans. Accessed July 16, 2014.

U.S. District Court for the Eastern District of Louisiana (USDC). 2002. 2002 Consent Decree 303(d) List. Available at: http://www.deq.louisiana.gov/portal/Portals/0/technology/tmdl/ConsentDecree.pdf. Accessed September 27, 2014.

U.S. Environmental Protection Agency (EPA). 1978. Protective Noise Levels. (USEPA 550/9-79-100.) Available at: http://nepis.epa.gov.

U.S. Environmental Protection Agency (EPA). 1999. Consideration of Cumulative Impacts in EPA Review of NEPA Documents. Memorandum from U.S. EPA, Office of Federal Activities (2252A). (EPA 315-R-99-002/May.)

U.S. Environmental Protection Agency (EPA). 2004. The Incidence of Sediment Contamination in Surface Waters of the United States, National Sediment Quality Survey: Second Edition. November 2004. Available at: http://water.epa.gov/polwaste/sediments/cs/upload/nsqs2ed-complete-2.pdf. Accessed August 5, 2014.

U.S. Environmental Protection Agency. 2007. Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze. Office of Air Quality Planning and Standards. (EPA-454/B-07-002.) Research Triangle Park, North Carolina. April. Available at: http://www.epa.gov/scram001/guidance/guide/final-03-pm-rh-guidance.pdf.

U.S. Environmental Protection Agency (EPA). 2008. Sole Source Aquifers. Chicot Aquifer System. Available at: http://www.epa.gov/region6/water/swp/ssa/maps/ssa_chicot.pdf. Accessed August 5, 2014.

U.S. Environmental Protection Agency (EPA). 2009. Current Methodologies in Preparing Mobile Source Port-Related Emission Inventories. Final Report. April. Available at: http://www.epa.gov/sectors/sectorinfo/sectorprofiles/ports/ports-emission-inv-april09.pdf.

U.S. Environmental Protection Agency (EPA). 2010. Memorandum from Stephen D. Page to Regional Air Division Directors titled, "Guidance Concerning the Implementation of the 1-hour NO_2 NAAQS for the Prevention of Significant Deterioration Program." June 28. Available at: http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Filings%20By%20Appeal%20Number/A12C3AF182585C8D852579530068A201/$File/Ex.%205...45.pdf.

U.S. Environmental Protection Agency (EPA). 2011a. Environmental Justice Frequently Asked Questions. Available at: http://www.epa.gov/compliance/ej/resources/faqs/index.html.

U.S. Environmental Protection Agency (EPA). 2011b. Memorandum from Tyler Fox to Regional Air Division Directors, titled "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard." March 1. Available at: http://www.epa.gov/region07/air/nsr/nsrmemos/appwno2_2.pdf.

U.S. Environmental Protection Agency (EPA). 2012a. Sole Source Aquifer Protection Program. Available at: http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/solesourceaquifer.cfm. Accessed August 5, 2014.

U.S. Environmental Protection Agency (EPA). 2012b. Designated Sole Source Aquifers in Region VI. Available at: http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_reg6.pdf. Accessed August 5, 2014.

U.S. Environmental Protection Agency (EPA). 2012c. Section 404 of the Clean Water Act: How Wetlands Are Defined and Identified. Available at: http://water.epa.gov/type/wetlands/outreach/fact11.cfm. Accessed August 6, 2014.

U.S. Environmental Protection Agency (EPA). 2013a. Surf Your Watershed. Available at: http://cfpub.epa.gov/surf/locate/index.cfm. Accessed September 4, 2014.

U.S. Environmental Protection Agency (EPA). 2013b. Water: After the Storm – Weather. Available at: http://water.epa.gov/action/weatherchannel/stormwater.cfm. Accessed September 29, 2014.

U.S. Environmental Protection Agency (EPA). 2013c. Acute Exposure Guideline Levels. Available at: http://www.epa.gov/oppt/aegl/pubs/chemlist.htm. December 3.

U.S. Environmental Protection Agency (EPA). 2014a. Species Profile: Bald Eagle. Available at: http://www.epa.gov/housatonic/thesite/restofriver/reports/final_era/B%20-%20Focus%20Species%20Profiles/EcoRiskProfile_bald_eagle.pdf. Accessed July 2014.

U.S. Environmental Protection Agency (EPA). 2014b. General Conformity. De Minimis Levels. Available at: http://www.epa.gov/oaqps001/genconform/deminimis.html.

U.S. Environmental Protection Agency (EPA). 2014c. Supreme Court of the United States. Syllabus. Utility Air Regulatory Group v. Environmental Protection Agency et al. Available at: http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf.

U.S. Environmental Protection Agency (EPA). 2014d. July 24, 2014 Memorandum. Next Steps and Preliminary Views on the Application of Clean Air Act Permitting Programs to Greenhouse Gases Following the Supreme Court's Decision in Utility Air Regulatory Group v. EPA. Available at: http://www.jacksonkelly.com/pdf/Memo%20JMcCabe%20and%20CGiles%20to%20RAs.pdf.

U.S. Environmental Protection Agency (EPA). 2015. National Ambient Air Quality Standards. Available at: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed July 2016.

U.S. Fish and Wildlife Service (FWS). 2006. Peregrine Falcon. Available at: http://www.fws.gov/endangered/esa-library/pdf/peregrinefactsheet.pdf. Accessed July 2014.

U.S. Fish and Wildlife Service (FWS). 2007. National Bald Eagle Management Guidelines. Available at: http://www.fws.gov/northeast/EcologicalServices/eaglenationalguide.html. Accessed August 27, 2015.

U.S. Fish and Wildlife Service (FWS). 2008. Birds of Conservation Concern. Available at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html. Accessed September 2014.

U.S. Fish and Wildlife Service (FWS). 2013a. Letter dated March from Edith Erfling, Field Supervisor.

U.S. Fish and Wildlife Service (FWS). 2013b. Letter dated November 7, from Brad Rieck, Deputy Field Supervisor, to Kim Bose, FERC.

U.S. Fish and Wildlife Service (FWS). 2013c. Letter dated November 14, from Edith Erfling, Field Supervisor, to Kim Bose, FERC.

U.S. Fish and Wildlife Service (FWS). 2014a. Letter dated July 3, from Edith Erfling, to Kim Bose, FERC.

U.S. Fish and Wildlife Service (FWS). 2014b. Bald and Golden Eagles. Available at: http://www.fws.gov/migratorybirds/baldeagle.htm. Accessed July 2014.

U.S. Fish and Wildlife Service (FWS). 2014c. Sprague's Pipit Conservation Plan. Available at: http://www.fws.gov/mountain-prairie/species/birds/spraguespipit/SpraguesJS2010r4.pdf. Accessed July 2014.

U.S. Fish and Wildlife Service (FWS). 2014d. Wood Stork (*Mycteria americana*). Available at: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06O. Accessed July 2014.

U.S. Fish and Wildlife Service (FWS). 2014e. Alligator Snapping Turtle (*Macrochelys temminckii*). Available at: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=C045. Accessed July 2014.

U.S. Geological Survey (USGS). 1987. Development of Ground-water Resources in the Orange County Area, Texas and Louisiana, 1980 – Spring of 1985. (Water Resources Investigations Report 87-4158.) Available at: http://pubs.usgs.gov/wri/1987/4158/report.pdf. Accessed August 5, 2014.

U.S. Geological Survey (USGS). 1998. Distribution of Saltwater in the Chicot Aquifer System of Southwestern Louisiana, 1995–96. (Water Resources Technical Report No. 66.) Available at: http://la.water.usgs.gov/publications/pdfs/TR66.pdf. Accessed August 5, 2014.

U.S. Geological Survey (USGS). 1999. Quality of Water in Domestic Wells in the Chicot Aquifer System of Southwestern Louisiana. Available at: http://la.water.usgs.gov/proposals/chctqw.html. Accessed August 5, 2014.

U.S. Geological Survey (USGS). 2003. A Tapestry of Time and Terrain. Available at: http://nationalatlas.gov/tapestry/physiogr/physio.html. Accessed July 2014.

U.S. Geological Survey (USGS). 2004. Shallow Sands and Thickness Data for the Chicot Aquifer System Surficial Confining Unit, Southwestern Louisiana. Available at: http://la.water.usgs.gov/publications/pdfs/BR22.pdf. Accessed August 5, 2014.

U.S. Geological Survey (USGS). 2005. Preliminary integrated geologic map databases for the United States: Central States. (Open-File Report 2005-1351.) Available at: http://mrdata.usgs.gov/geology/state/state.php?state=TX. Accessed October 2014.

U.S. Geological Survey (USGS). 2010. Status of the Chicot Aquifer System in Southwestern Louisiana with Emphasis on the Lake Peigneur Area. August 4. Available at: http://senate.la.gov/mills/Topics/2011/JECH/aquafier.pdf. Accessed August 5, 2014.

U.S. Geological Survey (USGS). 2013. 2014 Preliminary Hazard Maps. Available at: http://earthquake.usgs.gov/hazards/2014prelim/. Accessed July 2014.

U.S. Geological Survey (USGS). 2014. Landslide Hazards Program: Frequently Asked Questions. Available at: http://www.usgs.gov/faq/?q=taxonomy/term/9752. Accessed July 2014.

U.S. Global Change Research Program (USGCRP). 2014. Jerry M. Melillo, Terese (T. C.) Richmond, and Gary W. Yohe (Eds.). 2014: Climate Change Impacts in the United States: The Third National Climate Assessment. Available at: http://nca2014.globalchange.gov/report. Accessed August 24, 2015.

Westgate, J. 2004. Lamar University. Personal communication regarding paleontological resources.

Yellow Pages for Business. 2014. Campgrounds and Recreational Vehicle Parks. Available at: http://www.yellowpages.com.

APPENDIX O
List of Preparers

APPENDIX O – LIST OF PREPARERS

Federal Energy Regulatory Commission

Howard, Eric – Project Manager, *Project Description, Alternatives, Cultural Resources, Cumulative Impacts*
M.A., Anthropology, University of Tennessee, 1998
B.A., Anthropology, University of Tennessee, 1992

Kerrigan, Jennifer – Deputy Project Manager, *Land Use, Socioeconomics*
M.S., Geology, West Virginia University, 1979
B.S., Geology, Marietta College, 1975

Busch, Steven – *Reliability and Safety*
M.S., Environmental Engineering, University of Maryland, 2003

Ferree, Heather – *Terminal Reliability and Safety*
M.S., Mechanical Engineering, 2005, Pennsylvania State University
B.S., Mechanical Engineering, 2000, Pennsylvania State University

Glaze, James – *Geology, Soils*
B.S., Geology, California Lutheran University, 1975

Johnson, Gertrude F. – *Air and Noise*
B.S., Mechanical Engineer, Virginia Commonwealth University, 2003

Kochhar, Medha – *Water, Wetlands, Fish and Wildlife, Threatened and Endangered Species*
Ph.D., Plant Ecology, North Carolina State University, 1974
M.S., Botany, B.I.T.S., Pilani, India, 1968
B.S., Biology and Chemistry, University of Delhi, 1966

Federal Energy Regulatory Commission Consultants

Bachman, Robert, R.E. Bachman Consulting Structural Engineers
M.S., Structural Engineering, University of California at Berkeley, 1968
B.S., Civil Engineering, University of California at Berkeley, 1967

Bhushan, Kul, Group Delta Consultants, Inc.
Ph.D., Geotechnical Engineering, Duke University, 1970
M.S., Highway Engineering, Panjab University, 1963
B.S., Civil Engineering, Panjab University, 1962

Cardno

Sechrist, Kim – Project Manager, *Social Science Task Lead*
M.S., Environmental Science, Towson University, 2006
B.S., Biology, McDaniel College, 2004

Kicklighter, Wayne – Deputy Project Manager, *Project Scope Task Lead*
M.S. Ecology-Fisheries, San Diego State University, 1990
B.S. Biology, Memphis State University, 1987

APPENDIX O – LIST OF PREPARERS

Brewer, John – *Biology Task Lead, Project Description, Cumulative Impacts*
M.S., Marine Biology, University of Alaska, Fairbanks, 2007
B.S., Wildlife Ecology and Conservation, Animal Science, University of Florida, 1997

DiSanto, Lavinia –*Physical Resources Task Lead*
B.A., Biological Sciences, University of Delaware, 1999

Ferris, Jennifer – *Cultural Resources*
M.A., Anthropology, Washington State University, 2008
B.A., Anthropology, University of Washington, 2001

Germain, Grace – *Air and Noise*
B.S., Civil Engineering, University of Santo Tomas, Philippines, 1983

Hess, Jonathan – *Geology, Soil*s
B.A., Environmental Geology, Millersville University, 2008

Holmes, Sara – *Water, Wetlands, Vegetation*
B.S., Pre-Veterinary Science, West Virginia University, 2002

Layton, Jackie – *Editor*
A.A.S., Architectural Engineering, Delaware Technical and Community College, 1992

Lynn, Joan – *Editor*

Metzler, Darcy – *Fish and Wildlife, Threatened and Endangered Species*
M.A., Marine Policy, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, 2009
B.S., Underwater Archeology, Indiana University, Bloomington, 2001

Pahl, Oliver – *Socioeconomics*
B.S., Environmental Economics Policy and Management, minor in Natural Resource and Environmental Law and Policy, Oregon State University, 2003

Staeger, William – *Alternatives, Reliability and Safety*
M.S., Oregon State University, 1974
B.A., Lafayette College, 1967

FEDERAL ENERGY REGULATORY COMMISSION
Routing Code PJ 11.2
Washington, DC 20426

Official Business
Penalty for Private Use