EXHIBIT 11

PLAQUEMINES

PLAQUEMINES EXPANSION, LLC
AND VENTURE GLOBAL PLAQUEMINES LNG, LLC

PLAQUEMINES EXPANSION PROJECT

Resource Report 1

General Project Description

Docket No.
CP26-___-000

Prepared by
Burns & McDonnell Engineering Company, Inc

November 2025

PLAQUEMINES EXPANSION, LLC AND VENTURE GLOBAL PLAQUEMINES LNG, LLC

PLAQUEMINES EXPANSION PROJECT
RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION

Resource Report 1 – General Project Description	
Full Filing Requirements	
Information	**Report Section Reference**
This report is required for all applications. It will describe facilities associated with the project, special construction and operation procedures, construction timetables, future plans for related construction, compliance with regulations and codes, and permits that must be obtained. Resource Report 1 must:	
☐ 1. Describe and provide location maps of all jurisdictional facilities, including all aboveground facilities associated with the project (such as: meter stations, pig launchers/receivers, valves), to be constructed, modified, abandoned, replaced, or removed, including related construction and operational support activities and areas such as maintenance bases, staging areas, communications towers, power lines, and new access roads (roads to be built or modified). As relevant, the report must describe the length and diameter of the pipeline, the types of aboveground facilities that would be installed, and associated land requirements. It must also identify other companies that must construct jurisdictional facilities related to the project, where the facilities would be located, and where they are in the Commission's approval process.	Section 1.3, appendix 1A
☐ 2. Identify and describe all nonjurisdictional facilities, including auxiliary facilities, that will be built in association with the project, including facilities to be built by other companies. (i) Provide the following information: (A) A brief description of each facility, including as appropriate: Ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of federal, state, and local permits/approvals; (B) The length and diameter of any interconnecting pipeline; (C) Current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities; (D) Correspondence with the appropriate State Historic Preservation Officer (SHPO) or duly authorized Tribal Historic Preservation Officer (THPO) for tribal lands regarding whether properties eligible for listing on the National Register of Historic Places (NRHP) would be affected; (E) Correspondence with the U.S. Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species; and (F) For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program. (ii) Address each of the following factors and indicate which ones, if any, appear to indicate the need for the Commission to do an environmental review of project-related nonjurisdictional facilities. (A) Whether or not the regulated activity comprises “merely a link” in a corridor type project (e.g., a transportation or utility transmission project). (B) Whether there are aspects of the nonjurisdictional facility in the immediate vicinity of the regulated activity which uniquely determine the location and configuration of the regulated activity. (C) The extent to which the entire project will be within the Commission's jurisdiction. (D) The extent of cumulative federal control and responsibility.	Sections 1.8 and 1.10, appendix 1A
☐ 3. Provide the following maps and photos: (i) Current, original United States Geological Survey 7.5-minute series topographic maps or maps of equivalent detail, covering at least a 0.5-mile-wide corridor centered on the pipeline, with integer mileposts identified, showing the location of rights-of-way, new access roads, other linear construction areas, compressor stations, and pipe storage areas. Show nonlinear construction areas on maps at a scale of 1:3,600 or larger keyed graphically and by milepost to the right-of-way maps.	Appendix 1A

Resource Report 1 – General Project Description	
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(ii) Original aerial images or photographs or photo-based alignment sheets based on these sources, not more than 1 year old (unless older ones accurately depict current land use and development) and with a scale of 1:6,000 or larger, showing the proposed pipeline route and location of major aboveground facilities, covering at least a 0.5 mile- wide corridor, and including mileposts. Older images/photographs/alignment sheets should be modified to show any residences not depicted in the original. Alternative formats (e.g., blue-line prints of acceptable resolution) need prior approval by the environmental staff of the Office of Energy Projects. (iii) In addition to the copy required under §157.6(a)(2) of this chapter, applicant should send two additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects.	
☐ 4. When new or additional compression is proposed, include large scale (1:3,600 or greater) plot plans of each compressor station. The plot plan should reference a readily identifiable point(s) on the U.S. Geological Survey maps required in paragraph (c)(3) of this section. The maps and plot plans must identify the location of the nearest noise-sensitive areas (schools, hospitals, or residences) within 1 mile of the compressor station, existing and proposed compressor and auxiliary buildings, access roads, and the limits of areas that would be permanently disturbed.	Not Applicable
☐ 5. (i) Identify facilities to be abandoned, and state how they would be abandoned, how the site would be restored, who would own the site or right-of-way after abandonment, and who would be responsible for any facilities abandoned in place. (ii) When the right-of-way or the easement would be abandoned, identify whether landowners were given the opportunity to request that the facilities on their property, including foundations and below ground components, be removed. Identify any landowners whose preferences the company does not intend to honor, and the reasons therefore.	Not Applicable
☐ 6. Describe and identify by milepost, proposed construction and restoration methods to be used in areas of rugged topography, residential areas, active croplands, sites where the pipeline would be located parallel to and under roads, and sites where explosives are likely to be used.	Section 1.5
☐ 7. Unless provided in response to Resource Report 5, describe estimated workforce requirements, including the number of pipeline construction spreads, average workforce requirements for each construction spread and meter or compressor station, estimated duration of construction from initial clearing to final restoration, and number of personnel to be hired to operate the proposed project.	Section 1.5, Resource Report 5
☐ 8. Describe reasonably foreseeable plans for future expansion of facilities, including additional land requirements and the compatibility of those plans with the current proposal.	Section 1.7
☐ 9. Describe all authorizations required to complete the proposed action and the status of applications for such authorizations. Identify environmental mitigation requirements specified in any permit or proposed in any permit application to the extent not specified elsewhere in this section.	Section 1.9, table 1.9-1 in appendix 1B
☐ 10. Provide the names and mailing addresses of all affected landowners specified in §157.6(d) and certify that all affected landowners will be notified as required in §157.6(d).	Appendix 1F

Federal Energy Regulatory Commission Comments dated June 23, 2025 on the Preliminary Draft of Resource Report 1		
Number	**Comment**	**Response/Report Section Reference**
1	Sections 1.1 and 1.8 reference a new non-jurisdictional intrastate natural gas pipeline proposed to be built to supply natural gas to the Project, as well as new utility service connections to a local electric power system, water supply, and fiber optic telecommunications. Provide the following information, as applicable, related to the new non-jurisdictional facilities: (A) A brief description of each facility, including as appropriate: ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of federal, state, and local permits/approvals; (B) The length and diameter of any interconnecting pipeline; (C) Current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities; (D) Correspondence with the appropriate State Historic Preservation Office and duly authorized Tribal Historic Preservation Office (for tribal lands) regarding whether properties eligible for listing on the National Register of Historic Places would be affected; (E) Correspondence with the U.S. Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species; and (F) For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program.	This has been addressed in section 1.8.
2	As described in section 1.3, the liquified natural gas (LNG) for the Project would be stored in previously authorized containment tanks associated with the existing Plaquemines LNG Terminal. Provide additional details regarding the piping that would be constructed to transport LNG from the Project to the existing LNG storage tanks at the Plaquemines LNG Terminal, including the number and size of pipes to be constructed, construction equipment, and location of the pipes.	This has been addressed in section 1.3.1.
3	As referenced in section 1.3, provide additional information regarding the stormwater piping system and outfalls for the Project, including the size and location of the piping to be used to transport the stormwater to the adjacent existing Plaquemines LNG Terminal site, and the location of the proposed outfall structure.	This has been addressed in section 1.3.1.7.
4	As described in Resource Report 1, Plaquemines Expansion, LLC and Venture Global Plaquemines LNG, LLC are proposing to construct one new marine berth associated with the Project. Describe if and how the existing Plaquemines LNG marine berths would be used to support the Project, including the estimated number of ships that would be loaded at the new marine berth versus the existing marine berths, and the ability of the existing marine berths to accommodate the additional ship traffic to be generated by the Project.	This has been addressed in section 1.3.3.
5	Provide an updated version of section 1.3.1 that indicates approximately how long an arriving LNG carrier is expected to remain at the marine loading berth before departing.	This has been addressed in section 1.3.3 (previously section 1.3.1).
6	Section 1.9 states that initial consultation with permitting agencies is anticipated to commence in May 2025. Provide copies of all correspondence with permitting and resource management agencies, and as applicable, provide an updated version of table 1.9-1 that reflects the consultation and permitting efforts.	This has been addressed in appendix 1B.
7	Provide an updated version of section 1.11 that identifies potential projects located within the identified resource-specific geographic regions for cumulative impact assessment identified in table 1.11-1 and an assessment of potential cumulative impacts associated with construction and/or operation of the Project as it relates to each potential environmental resource.	This has been addressed in table 1.11-1.

Federal Energy Regulatory Commission Comments dated June 23, 2025 on the Preliminary Draft of Resource Report 1		
Number	**Comment**	**Response/Report Section Reference**
8	Provide a table that identifies past, present, and reasonably foreseeable future projects within the resource-specific geographic scopes identified in the table below. This table should also include the following information: a. project name and sponsor/proponent; b. a description of the project; c. location (city/county); d. approximate distance and direction of the project from the (Project Name) facilities; e. the milepost location where it crosses the proposed facilities or the nearest proposed project facility milepost; f. the resource-specific geographic scope the project falls within (specify the name of the HUC-12 watershed, where applicable); g. footprint/layout and quantitative impacts on specific resources, if available (acres of land/resource [wetlands, vegetation, habitat, etc.] affected); h. any known permits/authorizations or environmental review required; and i. the current status and schedule of the project. j. Also, include qualitative and quantitative descriptions of cumulative and/or overlapping impacts these projects and the FERC Project would have on each environmental resource. Lastly, include a map showing the identified projects in relation to the Project.	This has been addressed with table 1.11-2 in appendix 1B.
9	Provide an updated version of section 1.2 that discloses which overseas markets the Project is expecting to export LNG to, as well as provides a brief summary as to why the existing facility cannot meet the projected increase in export volumes.	This has been addressed in section 1.2.
10	Provide an updated version of section 1.5.1 that includes a detailed construction work schedule.	This has been addressed in appendix 13.A.5 of resource report 13.
11	Indicate the anticipated height of the new pipe trestle system above State Highway 23.	This has been addressed in section 1.3.
12	Provide additional details regarding the proposed flaring system, including the type of flares to be constructed, height and configuration of flares (if ground flares are not used), anticipated number of flare events monthly/annually, as well as the anticipated duration of flare events.	This has been addressed in section 1.3 and resource report 9.
13	Provide additional information regarding the temporary power generators and temporary utility line that would be used during construction. This additional information should include the number and size of generators, anticipated schedule of generator use, the location and size of utility lines, and the existing energy grid/system that the utility lines would interconnect with.	This has been addressed in section 1.3.3 and resource report 9.
14	Provide an estimate of the percentage of the workforce (construction and operational) that would consist of local residents, and the percentage of the workforce that would need to temporarily or permanently relocate to the area.	This has been addressed in section 1.5.1 and resource report 5.
15	Indicate if any worker (construction and operational) transportation/commuting measures are proposed to mitigate the effects on local traffic levels from the increase in workers commuting to the area (e.g., ride sharing, busing services, development of off-site commuter lots, etc.).	This has been addressed in section 1.5.4, and in the Traffic Management Plan in resource report 5, appendix 5B.
16	Provide the estimated number of marine deliveries of construction materials, including the frequency of the deliveries.	This has been addressed in section 1.5.4.

Federal Energy Regulatory Commission Comments dated September 30, 2025 on Draft Resource Report 1		
Number	**Comment**	**Response/Report Section Reference**
1	1. Provide the following information related to the non-jurisdictional Cloud Connector Pipeline: a. the entity that would construct, own, and operate the Cloud Connector Pipeline; b. a description of the pipeline that includes all aboveground facilities (e.g., compressor stations, meter stations, and other aboveground facilities), including its owner or sponsor; c. the county and state for each aboveground facility; d. emissions associated with the facility; e. land requirements; f. current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities; required permits, including any applicable regulatory siting process; and g. the latest status of federal, state, and local permits/approvals, including consultations with the State Historic Preservation Office, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. h. State under what jurisdiction the Cloud Connector Pipeline would be constructed and operated. i. If the pipeline purports to be a Louisiana intrastate, explain how the proposed pipeline would qualify as a Louisiana intrastate. If this is a new intrastate pipeline and not an extension of Plaquemines LNG's pipeline system, confirm that initially the pipeline would only transport gas produced in the state of Louisiana. ii. If the pipeline would be an interstate pipeline, when would an application for an amendment be filed before the Commission for a certificate of public convenience and necessity pursuant to section 7 of the Natural Gas Act?	This has been addressed in section 1.8 and appendix 1H.
2	As previously requested, provide additional information regarding the temporary power generators and temporary utility line that Plaquemines Expansion, LLC and Venture Global Plaquemines LNG, LLC (Applicants) would use during construction. This additional information should include the number and size of generators, anticipated schedule of generator use, and the location of utility lines.	Estimates of emissions from temporary power generators discussed in section 9.2.4, resource report 9. The utility connection will be located within the temporary utility/drainage workspace as illustrated on figure 1.1-2.
3	As discussed in section 1.3.1.9, the process water supplies for the Expansion Facilities would be sourced from the Mississippi River and processed by new facilities developed on the Project site. Clarify how many water intakes are proposed for construction water usage within the Mississippi River, and identify their location, size, and permitting associated with these water intakes. Additionally, provide the design for the appropriation structures, size and location of appropriation pipelines, and any environmental permitting associated with the appropriation structures.	Three intakes are proposed. Design continues to progress, and drawings with additional details will be submitted to the U.S. Army Corps of Engineers and Louisiana Department of Conservation and Energy as part of the permitting process. No additional permits are anticipated for the intakes beyond those already described in table 1.9-1.

Federal Energy Regulatory Commission Comments dated September 30, 2025 on Draft Resource Report 1		
Number	**Comment**	**Response/Report Section Reference**
4	As discussed in section 1.3.1.9, potable water needs for the Expansion Facilities would be provided via connections to the local utility potable water system. Based on comments received during Project scoping, provide details regarding the locations of the proposed tie-in points to the local utility potable water system, as well as a discussion of the capacity of the system and its ability to provide the additional capacity required by the Expansion Facilities.	This has been addressed in section 1.3.1.9. The Parish has confirmed that the existing water supply can support the proposed Project. The Parish issued a formal letter of support for the Project, indicating its confidence in the adequacy of available water resources (see appendix 5C in resource report 5). Additionally, during the scoping meeting (see section 1.10), the Parish President acknowledged that previous issues with water supply experienced during construction of the Authorized Facilities were the result of leaks within the Parish's own infrastructure. Those issues have since been identified and repaired. With the repaired infrastructure and the Parish's expressed support, there are no anticipated constraints on water supply for the proposed project.
5	As discussed in section 1.4.2, the Expansion Facilities would likely use existing offsite parking areas in Belle Chasse as park and ride lots during construction to reduce road congestion. Provide locations of parking areas that would be used as park and ride lots and estimates of the number of construction vehicle trips that would be eliminated by using park and ride services for construction workers.	This has been addressed in section 1.4.4, formerly section 1.4.2.
6	Section 1.4.3 discusses four new connections to State Highway (SH) 23 associated with the Expansion Facilities; however, only two connections are apparent on figures 1.3-1 and 1.3-2. Provide updated versions of figures 1.3-1 and 1.3-2 that show the location of the four proposed connections to SH 23.	This has been addressed in section 1.4.3.
7	Table 1.4-1 details 449.4 acres of parking/laydown workspace that is referred to as temporarily effected during construction; however, based on further details provided in resource report 1, these areas would be permanently effected by fill materials. Provide a discussion regarding the planned use of this workspace during operation of the Expansion Facilities. Provide an updated table 1.9-1. Be sure to include the additional informational letters that were provided to the U.S. Department of Energy on April 18 and May 5, 2025.	This has been addressed in table 1.4.1 and 1.9-1, and informational letters are provided in appendix 1E.
8	Provide a discussion regarding projected cumulative effects on groundwater uses and availability in the Project area.	This has been addressed in section 1.11.2.1.
9	In section 1.11, revise the geographic scope for land use to be 1.0 mile, rather than 0.25 mile. In addition, revise the geographic scope for operational noise to be any facility that would effect any noise sensitive areas within a one-mile radius of the aboveground facilities, rather than just identifying facilities within a one-mile radius of the aboveground facilities. Update table 1.11-1 and any text, as appropriate.	This has been addressed in section 1.11, resource report 8, and resource report 9.
10	Coordinate with the Port of Plaquemines and review the latest version of their Master Plan and Capital Improvement Plan to identify additional projects potentially contributing to cumulative effects.	This has been addressed in section 1.12.
11	Specify the long-term effects in section 1.11.2.2 and provide further details on the compensatory mitigation for surface water and wetland effects for the Project and other projects within the geographic scope for surface water and wetlands.	This has been addressed in section 1.11.2.2.
12	Provide sources used to obtain project information in table 1.11-2 in appendix 1B.	This has been addressed in table 1.11-2.

Federal Energy Regulatory Commission Comments dated September 30, 2025 on Draft Resource Report 1		
Number	**Comment**	**Response/Report Section Reference**
13	Table 1.11-2 includes several projects that are adjacent to the proposed Project; however, not all appropriate resources are included in the "Cumulative Resources Potentially Affected" column. Because these projects are adjacent to the proposed Project, they have the potential to cumulatively impact other resources within the respective geographic scope. Revise the table and text as appropriate.	This has been addressed in section 1.11 and table 1.11.2.
14	Venture Global uses the term "Expansion Facilities" in figures (e.g. 1.1-3, 7.3.2, 8.2-1) to denote an approximately 462-acre area adjacent to "Phase I/II Facilities." However, in tables (table 2.4-1) and portions of resource reports 1 and 2 (sections 1.5.3.1, 2.4.2), "Expansion Facilities" is used as an expanded term to include other areas to the east as well. In resource report 1 and subsequent resource reports, accurately use labels according to each Project facility.	This has been addressed in section 1.4.
15	Clarify the discussion in section 1.5.3.1. Distinguish between soil modifications appropriate for industrial facilities versus laydown yards. In the present text, there seems to be no practical distinction between land preparation of the "Expansion Site" and either "Parking/Laydown" yard even though: 1) site preparation activities include filling in low spots and application of gravel or other coarse material or chemicals, and 2) one of the Laydown areas is designated as "temporary."	This has been addressed in section 1.5.3.1.
16	"Permanent Impacts" of the loss of 253.7 acres of wetlands (Table 2.4-1) is not consistent with the use of the term "temporary" as part of the label for the 449.4-acre "Parking/Laydown (temporary)" area. Clarify the terms in section 1.5.3.1 and other sections to accurately identify permanent and temporary effects. Provide an alternative title to the "Parking/Laydown (temporary)" area to avoid errors during the quantification of effects.	This has been addressed in section 1.4 and figure 1.1-2.
17	The Landowner Brochure (An Interstate Natural Gas Facility on my Land: What do I need to know?) included in appendix 1E is outdated. Provide landowners with the May 2025 landowner brochure and include the updated version in the application (https://www.ferc.gov/media/gaspdf-5).	Because the April 18, 2025, original mailing occurred prior to the release of the May 29, 2025, brochure, the Applicants distributed the 2015 version. The May 2025 brochure was provided in an October 2025 mailing. See appendix 1E.
18	Clarify the purpose of the Gas Gate Station and indicate whether the equipment within the station would affect air quality and noise during Project operation. If applicable, include the station air quality and noise effects in the relevant sections and tables.	This has been addressed in section 1.3.1.1.

PLAQUEMINES EXPANSION, LLC AND VENTURE GLOBAL PLAQUEMINES LNG, LLC

PLAQUEMINES EXPANSION PROJECT
RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION

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LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

Applicants	Plaquemines Expansion, LLC and Venture Global Plaquemines LNG, LLC
application	The application to the Federal Energy Regulatory Commission of the Applicants for authorization to site, construct, and operate natural gas liquefaction and export facilities.
Authorized Facilities	The permanent land- and marine-based Plaquemines LNG natural gas liquefaction, storage, and export facilities
Bcfd	billion cubic feet per day
CCTV	closed-circuit television system
CEII	Critical Energy Infrastructure Information
CFR	Code of Federal Regulations
CO_2	carbon dioxide
Commission	Federal Energy Regulatory Commission
CPRA	Coastal Protection and Restoration Authority
CUI	Controlled Unclassified Information
CWA	Clean Water Act
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DOTD	Louisiana Department of Transportation and Development
EI	Environmental Inspector
EIA	U.S. Energy Information Administration
ESD	emergency shutdown
Expansion Facilities	permanent land- and marine-based Plaquemines Expansion natural gas liquefaction, storage, and export facilities
Expansion Site	land-based footprint of the Expansion Facilities within the storm surge wall
FERC	Federal Energy Regulatory Commission
FWS	U.S. Fish and Wildlife Service
GDP	gross domestic product
H_2S	hydrogen sulfide
HDPE	high density polyethylene
LDCE	Louisiana Department of Conservation and Energy
LDEQ	Louisiana Department of Environmental Quality
LNG	liquefied natural gas
LPDES	Louisiana Pollution Discharge Elimination System
m^3	cubic meters
m^3/hr	cubic meters per hour
marine berth	LNG loading dock on the Mississippi River
MOF	material offloading facility
MTPA	million tonnes per annum
NGA	Natural Gas Act
NFPA	National Fire Protection Association
PHMSA	Pipeline and Hazardous Materials Safety Administration
Plan	FERC Upland Erosion Control, Revegetation, and Maintenance Plan
Plaquemines Expansion	Plaquemines Expansion, LLC

Plaquemines LNG	Venture Global Plaquemines LNG, LLC
ppmv	parts per million by volume
Procedures	FERC Wetland and Waterbody Construction and Mitigation Procedures
Project	Plaquemines Expansion Project
SH	State Highway
SMR	single mixed refrigerant
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
Venture Global	Venture Global LNG, Inc.

PLAQUEMINES EXPANSION, LLC AND VENTURE GLOBAL PLAQUEMINES LNG, LLC

PLAQUEMINES EXPANSION PROJECT

1.0 RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION

1.1 INTRODUCTION

Resource Reports 1 through 13 collectively make up the Environmental Report submitted to the Federal Energy Regulatory Commission ("FERC" or "Commission") as part of the application (the "Application") of Plaquemines Expansion, LLC ("Plaquemines Expansion") and Venture Global Plaquemines LNG, LLC ("Plaquemines LNG"), together referred to as the "Applicants" and both wholly owned subsidiaries of Venture Global LNG, Inc. ("Venture Global"), for the proposed expansion ("Project") of the Plaquemines LNG Terminal that is currently under construction in Plaquemines Parish, Louisiana. The Application is submitted pursuant to section 3 of the Natural Gas Act ("NGA"), and the Environmental Report is submitted in accordance with Title 18 of the Code of Federal Regulations ("CFR") Section 380.12.

On September 30, 2019, the Commission authorized Plaquemines LNG to site, construct and operate a new liquefied natural gas ("LNG") export terminal and associated facilities along the Mississippi River in Plaquemines Parish, Louisiana.[1] The Authorized Facilities at the Plaquemines LNG export terminal include: (a) one natural gas gate station; (b) six pretreatment facilities; (c) 18 liquefaction blocks; (d) four full containment above ground storage tanks; (e) boil-off, flash, and gas relief systems; (f) three LNG loading berths; (g) two 710-megawatt electric power generation plants; (h) one warm flare, one cold flare, one spare flare, one low pressure flare, and one marine flare; (i) safety and security systems; and (j) other appurtenant facilities. The Authorized Facilities are under construction and commissioning and Plaquemines LNG has commenced the export of commissioning cargos.[2]

As part of this Project, Plaquemines Expansion proposes to build, own, and operate additional liquefaction facilities capable of producing an average annual capacity of 26.5 million metric tonnes per annum ("MTPA") with a peak capacity of up to 31 MTPA, and other facilities detailed below. The Expansion Facilities will be situated on an approximately 587-acre permanent site immediately adjacent to the approximately 632-acre site on which the Authorized Facilities are located. A new approximately 500-acre Temporary Workspace and an approximately 77-acre Existing Workspace from the Authorized Facilities will be utilized during construction of the Expansion Facilities.

The Project facilities will include (a) one natural gas gate station; (b) five pretreatment facilities; (c) 16 liquefaction blocks capable of producing an average annual capacity of 26.5 MTPA; (d) seven LNG expanders; (e) boil-off, flash, and gas relief systems; (f) one LNG loading berth for ocean-going vessels; (g) one warm flare, one cold flare, one spare flare, and one marine flare; (h) two 710-megawatt natural gas-fired combined cycle electric generation facilities; (i)

[1] Venture Global Plaquemines LNG, LLC and Venture Global Gator Express, LLC, 168 FERC ¶ 61,204 (2019) ("2019 Order"). The LNG terminal facilities authorized by the 2019 Order are collectively referred to herein as "Authorized Facilities." The 2019 Order also authorized Venture Global Gator Express, LLC to construct and operate a new natural gas pipeline system within Plaquemines Parish. The Commission recently authorized the increase in the maximum liquefaction capacity of the Authorized Facilities without any new facilities, construction activities, or facility modifications. Venture Global Plaquemines LNG, LLC, 190 FERC ¶ 61,113 (2025).

[2] The Commission approved Plaquemines LNG's request to load the first LNG export cargo on December 20, 2024. Accession No. 20241220-3027, Delegated Order issued in Docket No. CP17-66-000. Plaquemines LNG files both monthly construction reports and weekly commissioning reports with the Commission in that docket.

safety and security systems; and (j) other appurtenant facilities. The Applicants expect to begin construction of the Project upon receipt of all required regulatory approvals, as detailed below. The Project will be interconnected with the Plaquemines LNG terminal and will share in the utilization of certain Authorized Facilities, including treated gas, utilities, LNG storage tanks, low pressure flare, LNG loading berths, marine flare, electrical power generation, and other appurtenant facilities. The Project will not include any new FERC-jurisdictional interstate pipeline facilities; rather, feed gas for the Project will be delivered by a non-jurisdictional intrastate natural gas transmission pipeline system that will be constructed by an affiliate of the Applicants that will connect the Project to the existing natural gas pipeline network in northern Louisiana, and will provide feed gas to the liquefaction and power generation facilities. This pipeline is further described in section 1.8.[3]

The Applicants will work with the Commission and other interested federal, state, and local agencies to obtain all necessary permits and approvals for the Project. Following the receipt of Commission authorization and other necessary approvals, the Applicants plan to begin construction of the Project by early 2027.

The Project will initiate construction upon receipt of regulatory approvals to begin construction. The entire construction period is expected to be approximately four years. The Project facilities are illustrated in the series of figures contained in appendix 1A, as described below.

- Figures 1.1-1, 1.1-2 and 1.1-3 show the regional location of the Project facilities on an aerial map and U.S. Geological Survey topographic map, respectively.
- Figures 1.3-1 and 1.3-2 (filed under separate cover as Controlled Unclassified Information/Critical Energy Infrastructure Information [“CUI/CEII”]) provide a detailed layout of the Expansion Facilities on aerial and topographic maps, respectively.

The Project will be sited, constructed and operated pursuant to Section 3 of the NGA. The Applicants intend to own the natural gas and the LNG that passes through the Project facilities prior to the sale of LNG to third parties, and/or to act as agent for third parties under tolling arrangements pursuant to long-term off-take agreements. The Applicants will construct, own, and operate the Project facilities and will bear responsibility for related costs.

On March 6, 2025, the Applicants requested that FERC initiate the pre-filing process for reviewing the Project under the National Environmental Policy Act. This request was approved by the Director of the Office of Energy Projects on April 4, 2025, in FERC Docket Number PF25-7-000.

The Applicants plan to apply under Section 3 of the Natural Gas Act to the Department of Energy/Office of Fossil Energy to export up to 31 MTPA of LNG to Free Trade Agreement and non-Free Trade Agreement nations.

Resource Report 1 describes the Project and its purpose and need from a local, regional, national, and global perspective. In accordance with 18 CFR § 380.12, this report discusses

[3] The new intrastate natural gas pipeline is expected to consist of approximately 300 miles of 48-inch-diameter pipeline, with firm transportation capacity of approximately 4.5 billion cubic feet per day.

facility layout and design, construction schedule, land requirements, operation and maintenance procedures, non-jurisdictional facilities, applicable regulatory approvals, and agency coordination.

1.2 PURPOSE AND NEED

The Project's objective is to convert domestically produced natural gas to LNG for storage and export to overseas markets, which will encourage the development of new domestic resources, and promote a liberalized global natural gas trade and greater diversification of global supplies. The specific markets receiving the LNG will depend on the global demand dynamics and commercial arrangements in place at the time of export, subject to authorization from the U.S. Department of Energy ("DOE"). The Commission has authorized the Plaquemines LNG facility to produce up to a total of 27.2 MTPA of LNG for export; therefore, the Applicants are developing the Project to enable the production of a peak capacity of up to 31 MTPA of additional LNG for export. Once complete, together, the Authorized Facilities and Expansion Facilities will enable the combined production of 58.2 MTPA of LNG for export.[4]

Based on data from the Potential Gas Committee's biennial reports combined with U.S. Energy Information Administration ("EIA") data from the 2021 Annual Energy Outlook, the "total U.S. future supply of natural gas stands at an all-time record 3,863 Tcf [trillion cubic feet], which is well in excess of 100 years of supply at current consumption levels." This outlook is further supported by the DOE *Energy, Economic, and Environmental Assessment of U.S. LNG Exports* study which found that modeled U.S. domestic natural gas supply is sufficient to meet the modeled global demand for U.S. LNG exports while continuing to meet domestic demand (DOE, 2024).

According to the EIA, U.S. LNG exports are anticipated to increase by 3.3 billion cubic feet per day ("Bcfd") in 2025 and are expected to grow by 1.2 Bcfd in 2026 (EIA, 2025). Others forecast that the global demand for this abundant and clean form of energy will double by 2040. Customers in markets around the world are importing more U.S. LNG to provide their citizens with a cleaner alternative to coal and other higher carbon intensity forms of energy. American LNG also provides security and diversity of supply to countries who wish to increase their own national security. The DOE has consistently recognized that LNG exports have macroeconomic benefits and are consistent with the public interest. The U.S. LNG industry contributed more than $400 billion dollars to the U.S. gross domestic product ("GDP") and supported hundreds of thousands of jobs since 2016 (S&P Global, 2024). The public interest in the export of LNG by the Applicants will be further detailed in the export application to be filed with the DOE Office of Fossil Energy. Additional discussion regarding the natural gas market is provided in resource report 13, section 13.1.4.

1.3 PROJECT FACILITIES

Once complete, the Project will consist of 16 LNG blocks, capable of producing an average annual capacity of approximately 26.5 MTPA of LNG under optimal conditions. The LNG will be stored in the previously authorized full containment LNG storage tanks and loaded onto LNG carriers for export. The Project facilities are described in the following sections.

[4] FERC previously authorized the Plaquemines LNG facility to produce up to 24.0 MTPA of LNG under the 2019 Order. FERC issued an order approving an uprate amendment application on February 19, 2025, to 27.2 MTPA. Pursuant to orders issued on July 21, 2016 and June 13, 2022, the DOE Office of Fossil Energy authorized Plaquemines LNG to export up to 1,405.33 billion cubic feet per year of domestically produced LNG from the Authorized Facilities to free trade agreement countries. Pursuant to an order issued October 16, 2019, DOE has also authorized Plaquemines LNG to export up to 1,240 billion cubic feet per year of domestically produced LNG from the Authorized Facilities to non-free trade agreement countries. Plaquemines LNG's application to amend its non-free trade agreement authorization to increase the export capacity to 1,405.33 billion cubic feet per year is pending before DOE.

1.3.1 Expansion Site

1.3.1.1 Gas Gate Station

The Project will receive natural gas from a non-jurisdictional intrastate natural gas transmission pipeline which will be constructed onsite near the southwest boundary of the existing Plaquemines LNG facility. The gas gate station will contain non-jurisdictional intrastate pipeline equipment, including a filter/separator(s), custody transfer meter(s), emergency shut down ("ESD") valves, and gas analyzer located at the gas gate station. The Project's equipment that will interconnect with the pipeline at the gas gate station will include a tie-in to the inlet flange of the Project's custody meter, pig receiving facilities, ESD valves, and a gas analyzer. As a passive, closed-pipe system that will act as a transfer point, the gas gate station contains no compressors, combustion sources, or other machinery that would generate operational noise or air emissions. The gas gate station will be within an approximately 700-foot by 450-foot fenced area that will be located within the Project footprint.

1.3.1.2 Pretreatment Systems

The Project will have five pretreatment systems, each including an amine gas-sweetening unit to remove carbon dioxide ("CO_2") and a hybrid dehydration and heavy hydrocarbon removal unit to remove water and heavy hydrocarbons. Feed gas will be processed in the pretreatment systems before being directed to the LNG blocks as described below.

1.3.1.3 LNG Processing, Liquefaction Blocks and Refrigerant Storage

Sixteen liquefaction blocks, powered by electric motors, will contain the following liquefaction equipment:

- two single mixed refrigerant ("SMR") process units, including:
    - a two-stage mixed refrigerant centrifugal compressor with electric motor driver;
    - mixed refrigerant vapor and liquid separator vessels;
    - a cold box;
    - air cooled exchangers; and
    - a suction scrubber
- A refrigerant make-up system;
- A refrigerant storage site; and
- Distribution piping between the refrigerant storage site and the liquefaction blocks.

After liquefaction, LNG will be transferred from the Expansion Facility's liquefaction blocks to the LNG expanders, and subsequently to the LNG storage tanks at the Plaquemines LNG Terminal via aboveground piping interconnects. Pipe sections will be fabricated offsite and constructed by cranes once delivered. Plot plans which show the proposed piping within the

Authorized Facilities are provided in appendix 13.E.6 filed as CUI/CEII as part of resource report 13.

1.3.1.4 Flare System

Two separate flare structures will be installed at the Expansion Facilities:

- a warm/cold/spare flare structure containing two separate flare headers to handle cold relief fluids and wet/warm relief fluids about 280 feet in height; and
- a low-pressure marine flare structure for low-velocity vapors from LNG carrier gas-up/cooldown operations about 100 feet in height.

The Expansion Facilities' flare system will be designed to safely and reliably dispose of vapor streams that may need to be vented during plant emergency conditions. The design of the flare system will be based on segregation of wet, dry, and low-pressure streams. As such, two separate systems, warm (wet) and cold (dry), will be provided for the Project. Additionally, the Project will also contain a common spare flare stack. Low-pressure relief/vents from the Project's boil-off gas compressors will be sent to the Authorized Facilities' low-pressure flare. Additional details regarding flare system details, including heights and diameters are provided in resource report 13. The expected frequency and duration of flaring events is discussed in resource report 9.

1.3.1.5 Boil-off, Flash, and Gas Relief Systems

The boil-off, flash, and gas relief systems will include the following components:

- multiple electric-driven, boil-off gas compressors for recovering vapors generated from tank and pipeline heat leak, displaced gas from ship filling, and liquefaction flash gas (the recovered boil-off gases will be used as fuel by the Project's power generation facilities); and
- flares and associated piping for venting purge gas during plant startup and venting/flaring of gas during emergency operational situations.

1.3.1.6 Buildings

The Project will include a new control room and laboratory building adjacent to the Authorized Facilities' existing control room. The Project anticipates using the Authorized Facilities' existing workshop, warehouse, electrical equipment, and other support structures.

1.3.1.7 Stormwater Piping System and Outfall

Stormwater from the Expansion Facilities will be discharged through two outfalls located along the perimeter of the existing storm surge wall. From there, it will flow into the surrounding area outside the Plaquemines LNG Terminal Site. The outfalls will be regulated by the LDEQ under the Louisiana Pollutant Discharge Elimination System ("LPDES") program. The location and footprint of the outfalls are depicted on Figure 1.1-1. The proposed outfalls will be 48 inches in diameter.

1.3.1.8 Power Supply

Power for the Project operation is expected to be generated by two natural gas-fired combined cycle power plants, each with a generating capacity of 710 megawatts, designed to provide electrical power for the pretreatment and liquefaction systems, LNG loading pumps, boil-off gas compressors, site lighting, building loads, and other equipment that comprise the Project. Emergency power will be provided by diesel generators. Control and security systems will be powered through an uninterruptible power supply system with battery back-up.

The Expansion Facilities will also connect to a proposed 230 kilovolt interconnect substation, which will be located within the Project footprint. This substation will connect the power plants at the Authorized Facilities to the power plants at the Expansion Facilities. The Expansion Facilities will also have access to up to 60 megawatts of supplemental power from Entergy Louisiana, LLC via a substation at the Authorized Facilities. The utility connection will provide an alternate supplemental power source for the Authorized Facilities and the Expansion Facilities to enhance system reliability during peak operations and outages. Plaquemines LNG will seek a variance from FERC in Docket No. CP17-66 for the additional electrical connection once the design is complete.

1.3.1.9 Water Supply

The Applicants' process service water requirements are expected to be sourced from the Mississippi River and processed by new facilities to be developed on the Project site. The Expansion Facilities' potable water needs will be provided from one or multiple connections to the local utility potable water system. The connections to the local utility potable water system will be between the Expansion Site and State Highway ("SH") 23, in the Utility/Drainage workspace (see figure 1.1-2). The Parish has confirmed that the existing water supply can support the proposed Project and has issued a formal letter of support for the Project, indicating its confidence in the adequacy of available water resources (see appendix 5C, resource report 5). Additionally, during the scoping meeting, the Parish President acknowledged that previous issues with water supply experienced during construction of the Authorized Facilities were the result of leaks within the Parish's own infrastructure. Those issues have since been identified and repaired. There are no anticipated constraints on water supply for the proposed Project.

1.3.1.10 Communication System

The communication systems at the Expansion Facilities will include a telephone exchange, a public address and general alarm system, a ship-to-shore radio system, a computer network and email system, a plant telecommunication network, a telemetry system for data transfer to/from the Authorized Facilities, and a closed-circuit television system ("CCTV").

1.3.1.11 Project Safety

The Project will meet the applicable requirements of the regulations of the U.S. Coast Guard ("USCG") set forth in 33 CFR Part 127, the requirements of the U.S. Department of Transportation's ("DOT) Pipeline and Hazardous Materials Safety Administration ("PHMSA") in 49 CFR Part 193, and all other standards for safety and fire protection applicable to LNG terminals. These requirements and standards include the following technical safety measures:

- angular/linear displacement meters and alarms (jetty arms);
- quick connect/disconnect couplings (jetty arms);

- emergency system ship-to-shore interface point (jetty arms);
- impoundment basins for LNG spillages;
- fire, gas, and LNG spill detectors;
- emergency shutdown systems;
- firefighting systems (water deluge, foam generator, and dry powder);
- hazardous area classifications;
- depressurization and flare systems; and
- terminal security devices.

1.3.1.12 Project Security

The Project will be subject to USCG facility security regulations under the Marine Transportation Security Act (33 CFR Part 105) and will have a facility security plan approved by the USCG. The Project will meet the necessary security measures required under those regulations, including security fencing, lighting, access control, and a CCTV system.

1.3.2 Marine Berth

1.3.2.1 LNG Vessel Loading

The Project will include one new LNG loading berth, designed to accommodate LNG vessels ranging from 120,000 cubic meters ("m^3") to 210,000 m^3 of carrying capacity. Dredging is not required for the LNG vessels to access the new LNG loading berth from the Mississippi River given that the existing river water depths (i.e., 45 feet or greater) provide ample depth.

The new marine berth associated with the Project is summarized below and described in further detail in the subsequent paragraphs:

- aboveground cryogenic piping between the tanks' LNG pumps and the LNG loading berth;
- one trestle pipe system carrying LNG transfer piping and spill containment system, boil-off gas piping, and fire water piping between the Plaquemines LNG Terminal plant and the LNG loading berth;
- one marine flare structure about 100 feet in height for LNG carrier gas-up/cool-down operations; and
- one jetty substation, providing electrical power to other marine facilities.

1.3.2.2 LNG Carrier Berthing Area

The LNG carrier berthing area will consist of one new LNG carrier loading berth designed to accommodate LNG carriers ranging from 120,000 m^3 to 210,000 m^3 of cargo capacity and that will include:

- one jetty;
- one loading platform;
- one LNG spill collection sump;
- four berthing dolphins;
- three bow mooring dolphins; and
- three stern mooring dolphins.

The new LNG loading berth will be constructed in the Mississippi River along the northern edge of the Authorized Facilities and will include a 19.6-acre operational footprint (12-acre land footprint and 7.6-acre water footprint). The LNG loading berth will be on the Mississippi River between river mile markers 54 and 55 and located south of the three existing LNG loading berths and the Material Offloading Facility ("MOF"). LNG carriers will access the berth via designated shipping routes.

The LNG loading berth will feature a 135-foot-long by 110-foot-wide concrete platform with a hydraulic gangway, lighting, control buildings, cathodic protection, and an LNG trough leading to a separate platform-mounted spill-sump. The loading berth will include one jetty, one loading platform, one LNG spill collection sump, four berthing dolphins, three bow mooring dolphins, and three stern mooring dolphins. The berth will also include a separate platform for a service water pumps and intake. The berth will have breasting dolphins on the interior and mooring dolphins on the outer sides. The berth platform, spill-sump platform, service water pump platform, breasting dolphins, and mooring dolphins will be supported on steel piles of various diameters. A staircase at either end of the berth will provide access between the walkway and the river shoreline.

The LNG loading platform will include three 16-inch-diameter LNG loading arms, and one 16-inch-diameter vapor return arm. Each loading arm will be equipped with the following:

- a hydraulic quick connect/disconnect coupler;
- a hydraulic double-ball, valve-powered emergency release coupler;
- swivel joints with nitrogen purge;
- a mechanical locking device for arm stowing;
- nitrogen purge and drain connections; and
- breasting and mooring dolphins.

LNG will be pumped from the Authorized Facilities' LNG storage tanks to ocean-going carriers for export. The design pumping rate from the tanks will be 12,000 m^3 per hour ("m^3/hr"). At the LNG loading berth, transfer to carriers will be achieved through the three loading arms. The loading arms will be fully balanced in the empty condition by a counterweight system and maneuvered by hydraulic cylinder drives. The vapor return arm is provided to route displaced/flash gas back to the storage tanks. Each loading and vapor return arm will have a powered emergency release coupling.

1.3.2.3 Pipe Trestle System

The Expansion Facilities' design includes a trestle crossing of SH 23 by the cryogenic pipeline that will transport LNG from the LNG storage tanks to the LNG loading berth for marine export. In addition to the cryogenic piping and spill containment system, the trestle system will be used to carry utility connections to the LNG loading berth, crossing the Mississippi River levee as well as SH 23. The LNG loading berth will be connected directly with the liquefaction and storage facilities on the south side of SH 23 through a trestle system carrying LNG transfer piping, boil-off gas piping, fire water piping, and various auxiliary umbilicals. The pipe trestle will have a design similar to the pipe trestle associated with the Authorized Facilities and will cross over the storm surge wall in the northeast sector of the Expansion Site and run perpendicularly over SH 23 and the federal levee to the LNG loading berth. The pipe trestle will be around 35 feet tall and have more than 22 feet of clearance over both lanes of SH 23. Outside the Expansion Facilities' storm surge wall, the overall pipe trestle system length between the Expansion Facilities and LNG loading berth will be about 1,000 feet long.

The pipe trestle will consist of a horizontal steel lattice-work structure set on multiple vertical supports consisting of cross-braced steel pipe pilings. The pilings are 24-, 36-, 48-, or 54-inch-diameter, depending on location. The vertical clearance of the trestle above the federal levee will be 19 feet. The trestle width will be approximately 30 or 32 feet, depending on location. The pipelines and umbilicals will be set in tiers on the trestle, with the larger diameter structures, including the cryogenic LNG transfer piping, associated spill containment system, and vapor return piping, occupying the lower tiers.

1.3.2.4 Roadway

The LNG loading berth will have vehicular access by a roadway and a separate accessway to be constructed over the highway for pedestrian and non-highway vehicle access. The section of the roadway over and riverward of the federal levee will be supported on vertical steel pipe piling structures. The elevated roadway will be either 14 feet or 19 feet wide, depending on location, and will be flanked by guardrails. The roadway will originate on the north side of SH 23.

A separate accessway will be constructed to provide access for pedestrians and non-highway vehicles during operation of the Project. This accessway will originate within the storm surge wall and cross over the highway. The accessway will have more than 22 feet of clearance over both lanes of SH 23. This elevated accessway will not be utilized for construction traffic.

1.3.3 Facility Operational Design

The Applicants will build liquefaction infrastructure at the Expansion Facilities to provide an export capacity of 26.5 MTPA of LNG. Pipeline-quality natural gas from the existing market hubs and pipeline networks in northern Louisiana will be delivered to the Expansion Facilities through a non-jurisdictional intrastate natural gas pipeline, as described in section 1.8.

The Applicants estimate that the production volumes from the Expansion Facilities will be able to accommodate LNG vessels ranging from 120,000 m^3 to 210,000 m^3 of carrying capacity. The additional marine berth from the Expansion Facilities is required to accommodate the increased vessel traffic to support the total terminal capacity. The Applicants anticipate that the combined Project and Authorized Facilities will result in approximately 950 vessel arrivals annually, assuming an average vessel capacity of 120,000 m^3, four total LNG loading berths, and the additional proposed LNG production (i.e., 26.5 MTPA) for a combined production of 57.2

MTPA of LNG for export. A fourth berth will ensure efficient turnaround times, operational flexibility, and reduced scheduling bottlenecks.

Upon arrival at the Expansion Facilities, the feed gas will enter the gas gate station where the gas will be split into two streams, one for process feed to the liquefaction plant and the other for the fuel gas supply[5] to the electric power generation system. The pipeline-quality gas delivered to the Expansion Facilities will be composed primarily of methane but also will contain ethane, propane, butane, and other heavy-end hydrocarbons (between 2 and 3 percent) in addition to small quantities of nitrogen, oxygen, CO_2, and water.

To ensure that the liquefaction plant can function properly, the pretreatment units will remove CO_2, water, and heavy hydrocarbons from process feed gas. The trace amounts of CO_2 present in natural gas would freeze in the cryogenic liquefaction process and block the cryogenic exchangers if not removed beforehand. Hydrogen sulfide ("H_2S") is also removed to reduce the sulfur dioxide emissions. The pretreated gas will enter each block to be liquefied in the two SMR units in each liquefaction block, after which the LNG will be piped into storage.

LNG will be pumped from the Authorized Facilities' storage tanks to ocean-going carriers for export. To achieve the proposed maximum loading rate for LNG vessels (12,000 m^3/hr), the main cryogenic LNG line from the LNG storage tanks to the loading platform will be nominally sized at 42 inches in diameter. Based on this loading rate, LNG loading times for vessels will range from approximately 10 to 18.5 hours depending on vessel size and capacity. This estimate excludes vessel berthing, mooring, and unmooring/departure time. The LNG loading platform will support three 16-inch-diameter LNG loading arms, and one 16-inch-diameter vapor return arm. The loading arm will be equipped with the following:

- A hydraulic quick connect/disconnect coupler;
- A hydraulic double-ball, valve-powered emergency release coupler;
- Swivel joints with nitrogen purge;
- A mechanical locking device for arm stowing;
- Nitrogen purge and drain connections; and
- Breasting and mooring dolphins.

Arriving and departing LNG carriers will spend an average of nine hours in transit through state waters.

Electrical power will be generated at the Expansion Facilities by natural gas-fired combined cycle electric generation facilities, sized to reliably meet the Expansion Facilities' design requirements. The main power load at the Expansion Facilities will be consumed by compressor electric motor drivers in the liquefaction plant (one driver for each of the two liquefaction trains in each of the 16 liquefaction blocks). Other Project loads will include LNG pumps, boil-off gas and booster compressors, and the multiple fan motors that will be used for air cooling during the liquefaction process. The electric generation facilities will supply their own auxiliary electric loads, including fans in the air-cooled steam condenser, and will have multiple generators for black start capability. During construction, the Expansion Facilities will be powered by temporary power

[5] Natural gas feed for power generation will be supplemented with boil-off gas and other fuel gas streams generated in the liquefaction plant.

generators and a temporary utility line until the power plant is operational. The 230-kilovolt interconnect substation may also be used during construction and commissioning.

The Expansion Facilities will use the local utility potable water line for the potable water needs for the Expansion Facilities.

Service water (fresh water) will be generated using an intake located along the Mississippi River, treated in the Project's freshwater treatment system, and stored in a combined fresh water and fire water tank. Service water will be used for commissioning and operation of the Expansion Facilities. The riverwater system will include three electric-powered pumps each with a rated capacity of 400 gallons per minute. The Applicants will place water intakes above the channel bed to avoid or minimize sediment disturbance.

The sanitary waste system used for Expansion Facilities operations will include a sanitary wastewater treatment package plant which will discharge effluent to a LPDES permitted outfall. The system will also have a holding tank which will be pumped out as necessary and the waste disposed of at licensed facilities.

1.3.3.1 Pretreatment Process Description

After passing through the gas gate station at the Expansion Facilities site, the feed gas will be sent to the pretreatment facilities. The pretreatment plant contains an H_2S removal unit, an acid gas removal unit, and a hybrid dehydration and heavy hydrocarbon removal unit that will remove trace components of CO_2, H_2S, water, and heavy hydrocarbons. The trace amounts of CO_2, water, and heavy hydrocarbons present in natural gas will freeze in the cryogenic liquefaction process and block the cryogenic exchangers if it is not removed beforehand. H_2S is removed to meet LNG specifications and to lower sulfur dioxide emissions associated with combustion. After passing through the gas gate station, the feed gas will enter the H_2S removal unit and then the acid gas removal unit, which will be designed to treat feed gas containing levels of CO_2 up to 2 percent mole. The amines collected in the solvent drain tank during maintenance will be filtered and transferred to the solvent storage tank.

The feed gas pressure will be boosted as necessary by electric motor-driven compressors to achieve a minimum of 1,080 pounds per square inch gauge after pretreatment and before the feed gas enters the liquefaction system. Air-cooled heat exchangers will cool the feed gas to a near-ambient temperature to remove the heat of compression. The feed gas leaving the booster compressors will be split into streams to feed each of the 16 liquefaction blocks.

1.3.3.2 Hydrogen Sulfide Removal Unit

The H_2S removal unit will be downstream of the acid gas removal unit. Acid gas from the acid gas removal units, containing up to 300 parts per million by volume ("ppmv") H_2S, will be fed to the non-regenerative H_2S removal beds to remove H_2S to lower sulfur dioxide emissions associated with combustion. Potential carryover of absorbent particles will be removed in the H_2S absorber after-filters.

1.3.3.3 Acid Gas Removal Unit

The acid gas removal unit is designed to treat feed gas containing up to 2 percent mole CO_2. Treated feed gas must contain no more than 50 ppmv CO_2 and no more than 1 ppmv H_2S. Activated methyl diethanolamine technology will be used, primarily due to its ability to remove CO_2 to very low levels, to reduce corrosion issues, and because of its lower foaming tendencies.

Five acid gas removal units will be installed. Antifoam injection will be provided, as well as amine and water storage and make-up facilities. The low-pressure CO_2-rich acid gas stream with some H_2S and residual hydrocarbons content will be sent to the H_2S removal units, as described in the previous section, and then to the thermal oxidizers for destruction.

1.3.3.4 Hybrid Dehydration and Heavy Hydrocarbon Removal Unit

The hybrid dehydration and heavy hydrocarbon removal unit will be downstream of the acid gas removal unit and is designed to remove water and heavy hydrocarbons from the feed gas leaving the amine tower after acid gases have been removed. Water and heavy hydrocarbons would freeze during natural gas liquefaction if not removed beforehand. The hybrid system will consist of five molecular sieve vessels; the process flow is routed through a valve system to two of the vessels while the other vessel's sieve material is regenerated with a small flow of dry hot gas.

At any given time, three molecular sieve beds will be in adsorption mode, while the other two will be in regeneration mode. The regeneration gas is heated by a hot oil system. The dried treated gas is filtered downstream of the molecular sieve vessel. The water content of the gas is reduced to about 0.5 ppmv.

1.3.3.5 Liquefaction Process Description

Each of the 32 liquefaction trains (two in each of the 16 liquefaction blocks) will use the SMR process to produce up to 1.66 MTPA of LNG per block (collectively, 26.5 MTPA). When the pretreated gas enters the liquefaction train, it will be de-superheated, condensed to liquid, then sub-cooled to near -260 degrees Fahrenheit in aluminum plate-fin heat exchangers, which will be enclosed and insulated with perlite powder in steel cold-boxes. Refrigeration for this process will be produced by a specially designed single loop mixed refrigerant system. The refrigerant, a mixture of nitrogen and hydrocarbon gases (e.g., methane, ethylene, propane, butane, and pentane), will be pressurized by a multi-stage electric motor-driven compressor and then partially condensed in air-cooled heat exchangers. The resultant cooled and pressurized vapors and liquids are separated into various streams and continue to be condensed and sub-cooled in the cold-box plate-fin heat exchangers. The cooling source for these mixed refrigerant streams and the natural gas liquefaction stream will be created by flashing cold mixed refrigerant to lower pressures then passing those colder mixed refrigerant streams in counter current to the streams to be cooled in the plate-fin heat exchangers. The lower pressure mixed refrigerant will be warmed to near ambient and returned to the suction of the compressors to complete the cycle.

Each liquefaction train will contain a refrigerant make-up system with gas analyzers and controls that maintain the refrigerant components in proper proportion. The refrigerant make-up system will be also designed to recover refrigerant during equipment shutdown. Distribution piping will connect vessels in the common refrigerant storage area to each liquefaction train. Except for certain safety systems, one distributed control system in the liquefaction plant control building, with multiple equipment redundancies, will be used for all process and power control.

When the LNG exits the cold-box, it will be depressurized in the LNG expanders and delivered at near ambient pressure to the LNG storage tanks. From the LNG storage tanks, the LNG will be pumped through cryogenic transfer piping onto ocean-going LNG carriers at the berthing dock.

1.4 LAND REQUIREMENTS

Land requirements for the construction and operation of the Project include the permanent Expansion Facilities, temporary workspaces, and existing workspaces, as illustrated in figures 1.1-1 and 1.1-2. Land requirements are addressed in the following sections for the Project.

1.4.1 Expansion Facilities

The Expansion Facilities will be constructed within an approximately 462-acre property and 62-acre marine facility workspace that has been contractually secured by an affiliate of the Applicants through agreements with the Louisiana Gateway Port. These contracts grant the right to lease the property for up to 70 years. The LNG loading berth will be constructed in the Mississippi River along the northern edge of the Expansion Facilities and includes a 20.3-acre operational footprint. Table 1.4-1 shows the Project land requirements.

An additional 104.8 acres of permanent workspace will be used during construction and operation of the Project. The operational uses of this workspace will include laydown and parking for future maintenance events.

TABLE 1.4-1

Plaquemines Expansion Project
Summary of Land Requirements at the Expansion Facilities

Facilities		Land Impacted by Construction (acres)	Land Impacted by Operation (acres)
Expansion Facilities			
Expansion Site		462.0	462.0
Permanent Workspace		104.8	104.8
Marine Berth (Land-Based)		20.3	20.3
	Total	586.6[b]	586.6[b]
Temporary Workspace			
Parking/Laydown		449.4	0.0
Marine Berth (Water-Based)		43.0	0.0
Utility/Drainage		7.5	0.0
	Total	499.9	0.0
Existing Workspace [a]		77.6	0.0
	Total [b]	**1,164.1**	**586.6**

[a] Existing workspace has been previously approved from the Authorized Facilities and the Applicants will utilize this space during construction.
[b] Totals may not match the sum of addends due to rounding.

1.4.2 Temporary Workspace

About 499.9 acres of temporary workspace will be used for construction of the Project and is comprised of an approximately 449.4-acre parking/laydown area, a 43-acre marine berth workspace, and a 7.5-acre utility/drainage workspace, as shown on figure 1.1-2. The marine berth workspace will be located in the Mississippi River and will be occupied by marine equipment (e.g., vessels, barges). After construction, this workspace will return to its natural state and no permanent impacts are anticipated. The utility/drainage workspace is located north of the Expansion site along SH 23 and will be used as access for existing utility tie-ins and drainage. After construction, this workspace would be restored to previous conditions.

An approximately 449.4-acre parking/laydown area will be located on the south side of SH 23 (immediately east of and abutting the Expansion Facilities permanent workspace) and will be utilized for parking and material storage. The parking/laydown workspace will provide sufficient parking for all anticipated construction personnel associated with the Project. This additional parking area will allow personnel associated with construction of the marine berth and operation of the MOF to be the sole users of the parking and laydown areas located on the north side of the highway (the "Existing Workspace"), thus reducing daily traffic between those portions of the Project. The parking/laydown area will also accommodate more onsite storage of bulk materials such as aggregate and excess spoil stockpiles, which will reduce the need for deliveries on an on-demand basis and allow a greater portion of bulk materials to be scheduled for delivery during off-peak hours.

Upon completion of construction, the gravel will be removed from the parking/laydown workspace, topsoil will be replaced, and the area will be restored to preconstruction conditions (see resource report 2, sections 2.3.5 and 2.4.2 for additional details on wetlands and waterbodies in the parking/laydown workspace). As further described in section 1.5. below, the Applicants will adhere to the FERC *Upland Erosion Control, Revegetation, and Maintenance Plan* ("Plan") (appendix 1C) and the FERC *Wetland and Waterbody Construction and Mitigation Procedures* ("Procedures") (appendix 1D). A request for modification to the Plan and Procedures in support of this is described in section 1.5 below.

1.4.3 Existing Workspace

The Existing Workspace (77.6 acres) was previously approved in connection with the Authorized Facilities, and the Applicants will utilize this workspace during construction for parking, staging, and laydown, and for access via the existing bridge to/from the MOF. This area will not be used during operation of the Project and will revert back to its previous use.

1.4.4 Contractor Yards

Contractor yards are needed for various uses, such as pipe fabricating, concrete coating operations, and fabricating piping assemblies, staging construction operations, storing construction materials, parking equipment, and maintaining temporary construction offices. The Applicants anticipate using the Venice Yard, a contractor yard that was approved for use for the Authorized Facilities (see Accession No. 20220603-3003) and the existing 2.2-acre overnight truck parking lot located about 2.7 miles west of the facility that was also used by the Authorized Facilities (see Accession No. 20230531-5413).

The Applicants will also use the existing Boomtown Casino & Hotel as an offsite parking area in the Belle Chasse community, and as park and ride lots during construction to reduce congestion on roads. Additional details on the offsite parking areas are provided in resource reports 5 and 8.

1.4.5 Access Roads

Access roads are used to transport construction workers, equipment, and materials to the construction work area from public interstate, state, county, and local highways/roads. Early construction access to the Expansion Facilities will be via the existing Plaquemines LNG Terminal Site driveways. Two new connections to SH 23 and one new connection from an unimproved road along the eastern side of the Expansion Facilities will be constructed for ingress and egress to the Expansion Facilities.

1.5 CONSTRUCTION SCHEDULE AND PROCEDURES

1.5.1 Construction Schedule and Workforce

The Applicants anticipate that FERC authorization to site, construct, and operate the Project will be issued in the second half of 2026. Project construction is anticipated to commence by early 2027, with first production of LNG targeted during 2029.

During the construction peak, an estimated 9,000 on-site direct workers will be required; however, the number of workers present at different stages of construction will vary significantly. As Expansion Facilities construction activities increase, the workforce will average approximately 4,000 workers over 47 months. The Applicants estimate approximately 30 percent of the workforce will be residents; therefore, approximately 70 percent of the workforce would need to temporarily or permanently relocate to the area. About 250 permanent workers will be employed at the Expansion Facilities of which the Applicants expect that about 25 percent would likely relocate to the area. Additional detail is provided in resource report 5.

Construction activities will occur on a 24-hours-per-day, 7-days-per-week (24/7) basis. Hammer or vibratory pile driving will be limited to the hours of 7 AM to 7 PM. Landowners, local officials, and emergency responders will be notified about the construction schedule as discussed in section 1.10. A Project schedule for the full completion and commissioning is included in appendix 13.A.5 of resource report 13.

1.5.2 Construction Procedures

The Applicants will adhere to numerous construction and operation plans, including but not limited to:

- FERC *Upland Erosion Control, Revegetation, and Maintenance Plan* (“Plan”) (appendix 1C);
- FERC *Wetland and Waterbody Construction and Mitigation Procedures* (“Procedures”) (appendix 1D);
- Spill Prevention, Control, and Countermeasure Plan (to be filed prior to construction);
- Stormwater Pollution Prevention Plan (“SWPPP”) (to be filed prior to construction):
- Spill Prevention and Response Procedures Plan (“SPRP”) (appendix 2C)
- Plan for Unanticipated Discovery of Cultural Resources or Human Remains During Construction (appendix 4E);
- Traffic Study and Management Plan (appendices 5B and 5C);
- Expansion Facilities Lighting Plan (appendix 8B);
- Fugitive Dust Plan (appendix 9E);
- Nighttime Construction Noise Mitigation Plan (appendix 9F); and,

- Emergency Response Plan (appendix 11B).

All facilities will be designed, installed, tested, operated, and maintained in accordance with applicable laws, regulations, and standards intended to prevent facility accidents and failures, ensure public safety, and protect the environment. These standards and regulations include the DOT's *Federal Safety Standards for Liquefied Natural Gas Facilities* (49 CFR Part 193; DOT, 2006), the National Fire Protection Association ("NFPA") *Standard for the Production, Storage, and Handling of LNG* (Standard 59A), the National Electrical Code (NFPA 70) (NFPA, 2017, 2019), and applicable sections of the USCG's regulations for Waterfront Facilities Handling Liquefied Natural Gas and Hazardous Gas (33 CFR Part 127 and Executive Order 10173; USCG, 1988).

The Project will comply with FERC's Plan and Procedures as applicable to LNG terminal construction (see appendices 1C and 1D); however, modifications are requested and are described in table 1.5-1. Implementation of the Plan and Procedures during construction and post-construction monitoring will help ensure that ground disturbance and restoration activities are implemented in an environmentally appropriate manner.

TABLE 1.5-1

Plaquemines Expansion Project
Summary of Modifications to the FERC Plan and Procedures for the Project

Section	Original Text	Justification for Modification
FERC Procedures		
V.B.8.a	Complete instream construction activities (not including blasting or other rock breaking measures) within 48 hours, unless site-specific conditions make completion within 48 hours infeasible.	Instream work on the marine berth will require more than 48 hours to complete.
VI.D.4	Monitor and record the success of wetland revegetation annually until wetland revegetation is successful.	The wetland disturbances associated with the Project that lie outside the permanent facility footprint will be temporary in nature and will be restored to pre-construction elevation and contour as part of post-construction site work. These areas are currently in degraded ecological condition, have a history of subsidence and disturbance, and are expected to revegetate naturally under prevailing hydrologic conditions. In light of the temporary character and low functional risk, the Applicants request a modification to FERC Procedures requirement for quantitative revegetation monitoring. Instead, the Applicants commit to (a) fixed photo station documentation (pre- and post-construction), (b) periodic visual inspection reports following major storm or seasonal cycles, and (c) a contingency corrective stabilization protocol if erosion or surface instability is observed. The Applicants submit that this alternative provides comparable environmental protection while avoiding unneeded monitoring burden and is justified given the site-specific conditions. All other FERC Procedures mitigation obligations (e.g., restoration, inspection, compliance reporting) applicable to LNG facilities will be met, and any federal or state agencies with oversight may require additional corrective measures if necessary.

Public roads utilized in the Project vicinity during construction will be monitored daily and maintained as necessary to ensure that any deterioration in condition noted at the end of

construction reflects typical traffic usage and is not directly attributable to higher-than-average traffic volumes associated with the Project. Existing roads that are damaged or modified as a direct result of construction will be repaired or restored to previous conditions. Public roads will be monitored during construction to assess damage and repairs and help detect and prevent unwanted dirt and debris migrating off-site from the Project's workspaces.

During construction, some potential exists for spills of hazardous materials, such as hydraulic fluid and diesel fuel for equipment and vehicles. In addition, stormwater runoff from the construction workspace could carry unconfined debris or materials. To address these concerns, the Applicants will develop and adhere to a Spill Prevention and Response Procedures Plan and a SWPPP, in line with applicable regulations and permit requirements.

The Applicants will review Project-specific environmental conditions with prospective contractors during pre-bid meetings and incorporate such conditions into construction bid documents. The Applicants will require that all contractors develop and train their construction workers in spill prevention and clean-up, waste management, and incident management and reporting to support environmental compliance during construction. Contractors will be contractually obligated to comply with all environmental conditions. As soon as any non-compliance during construction is discovered, the contractor will be directed to comply. Additional corrective actions may be taken as necessary, including the issuance of stop-work orders.

For purposes of quality assurance and to support regulatory compliance, the Project will be represented by one chief inspector at the Expansion Facilities, and one for the gas gate station inside the Plaquemines LNG terminal. Craft inspectors and environmental inspectors ("EIs") will assist each chief inspector. In addition, craft inspectors will be used for inspection services at manufacturing and fabrication facilities handling process modules, equipment, and piping prior to delivery to the Project. All inspectors will have access to the compliance specifications and other relevant material contained in the construction contracts.

The primary role of the EIs is to ensure that the environmental conditions associated with permits and other authorizations are satisfied. The EIs will have authority to stop work or require other corrective actions to achieve environmental compliance. In addition to monitoring compliance, the EIs will assist with environmental training for Project personnel and report compliance status on a daily, weekly, and biweekly basis. The environmental training program will be designed to ensure that all individuals receive training tailored to their role before beginning on-site work, adequate training records are maintained, and refresher training is provided as needed.

1.5.3 Expansion Facilities

1.5.3.1 Site Preparation and Temporary Construction Facilities

The Expansion Site and Permanent Workspace will require area-wide improvements, including clearing, grubbing, grading, soil stabilization, and filling to increase ground elevation, some of which must be performed ahead of foundation development and plant construction. The method and required depth of soil stabilization activities to be conducted at any one location will be dependent upon site-specific soil conditions, moisture content at the time of construction, and the required weight bearing capacity of that location. Generally, the in-situ soils will be improved through the addition of Portland cement and/or hydrated lime to depths ranging between 10-22 feet below the ground surface. Mixing methods will include single lift bucket mixing, multiple lift bucket mixing, and vertical auger mixing. Soil samples will be taken during stabilizing activities

to develop the cement stabilization ratios and test strips will be conducted to verify weight bearing capacities are consistent with Project-specifications. Soil consolidation may also be achieved using other methods, such as the installation of wick drains and stone columns.

The Expansion Site ground elevations within the storm surge wall will be raised through grading and potential importing of fill materials. The source of additional fill material has not been confirmed; however, commercially available aggregate materials, including gravel, oyster shell, and crushed stone will be used. The Applicants will construct a storm surge wall to protect the facilities from storm surge during construction and operation.

Soil stabilization is not planned for the temporary Parking/Laydown area. Topsoil will be stripped and stockpiled, and aggregate materials (e.g. gravel, oyster shells, and/or crushed stone) and geotextile layers will be used to level and finish temporary workspace, as necessary. Upon completion of construction, the geotextile layers and gravel will be removed, topsoil will be replaced, a suitable seed mix will be used to encourage natural regeneration of vegetation, per the FERC Plan and Procedures. Aggregate materials will be delivered to the Expansion Facilities by truck or by barge to the existing MOF.

At the outset of construction, the Applicants will install temporary facility areas within the laydown area to support construction. These additional areas will be required for developing "preliminary works," which include initial site preparation and construction of new site access roads. The temporary facility areas may house sanitary facilities, a parking area, and a laydown area for material storage. As site preparation proceeds, this temporary facility area will be expanded, and additional temporary facilities will be added as necessary to support construction. These areas will include offices, a canteen, a warehouse, sanitary facilities, and parking areas. Construction workspace preparation across the Expansion Site will involve cutting and filling to rough grade and soil stabilization and improvement as referenced above, followed by temporary fencing installation to isolate construction activities from peripheral areas. Construction access roads will be installed at this time. In addition to the plant roads, electrical, communications, and water systems needed during construction will be installed at this time.

As part of site preparation, the Applicants will install one or more temporary water intake(s) within the Mississippi River to supply water for construction and commissioning needs such as dust suppression, hydrostatic testing, and water needs for commissioning. The temporary water intake will be located within the footprint of the proposed marine facility. The temporary water intake design will likely consist of a 30-inch-diameter high density polyethylene ("HDPE") waterline at grade within the river and batture. The water line will contain two electric pumps with a power supply located landward of the levee. The intake will have slots only on the top of the HDPE pipe to screen the intake and prevent uptake of sediment. The pumps will be screened and elevated in accordance with permit requirements. Pumping capacity will likely range between 500 and 1,000 gallons per minute.

The Expansion Site preparation activities will be designed to ensure efficient and environmentally protective stormwater drainage. The Expansion Site will be designed to direct discharges through a system of ditches and trenches and, if necessary, a holding basin and filtration devices during construction, allowing sufficient retention time to preclude high sediment loads from reaching receiving waters. Stormwater controls (including placement of gravel or other suitable material to provide a stable, well-drained surface) will be installed. Throughout construction, the Applicants will follow the erosion and sedimentation control procedures described in the SWPPP and the Plan and Procedures.

1.5.3.2 Liquefaction Plant Facilities

At the current stage of project design, detailed site-specific construction procedures for the Expansion Facilities remain under development. However, the general construction procedures described below for the liquefaction plant are generally applicable to the other major site facilities requiring pile foundations and involving the transportation of large equipment units by truck and/or barge. For ancillary site facilities, such as utility storage areas, and warehouses, construction would also commence with foundation preparation, which may require the installation of piles.

The liquefaction plant will consist of 16 liquefaction blocks occupying a rectangular footprint in the north central sector of the Expansion Site. Following site grading, soil stabilization, and plant road installation (see description of Site Preparation and Temporary Construction Facilities above), foundation construction will commence with installation of piles to provide a firm base for the structures supporting the liquefaction blocks. Pile specifications will be based on guidance in FERC's most recent draft seismic guidelines (FERC, 2007) and Section 7.2.2 of NFPA Standard 59A (NFPA, 2019). After the piles have been positioned using pre-drilled holes and/or pile-driving, caps will be installed and the concrete pad poured. Helical piles may also be used for some applications. After the piles have been positioned using predrilled holes and/or pile-driving, caps will be installed and the concrete pad poured.

The liquefaction blocks will be interconnected with the gas gate station at the Project and the LNG storage tanks at the Authorized Facilities by buried and aboveground piping interconnects, the latter on steel-framed support racks. Pipe spool fabrication will be undertaken mainly off site. Spools fabricated off site will be delivered by truck and barge. Where possible, pipe racks will be modularized to minimize site work. Pipe sections will be painted, coated, or insulated, as necessary, after welds have been tested according to applicable codes.

Certain larger equipment units, such as pretreatment systems, liquefaction cold-boxes and refrigerant compressors, will be assembled as modules in several offsite prefabrication yards. This offsite modular approach allows equipment assembly in a more controlled environment than that encountered under the onsite "stick-built" approach. Equipment units necessary for the Expansion Facilities will be constructed at existing commercial facilities within existing previously permitted or disturbed areas. Following the assembly, these large modular units will be transported to the MOF located on the Mississippi River, off-loaded, and transported to their respective foundations. Other equipment will be shipped to the Expansion Facilities site by truck. Equipment will undergo quality assurance/quality control inspection and testing at its place of origin and upon installation at the Expansion Facilities.

Once foundations have been set, work on the liquefaction blocks, piping interconnects, and associated utility systems can occur within the same general timeframe but will be coordinated such that various inter-dependent systems (e.g., electrical and instrumentation) can be installed and tested according to an appropriately sequenced schedule. After the equipment and piping has been set in place, cable systems will be installed. Ultimately, road paving, final site grading, seeding, and cleanup will be completed. Temporary construction facilities will be disassembled and removed on a progressive basis when they are no longer needed.

Pipe sections will be either hydrostatically or pneumatically tested (additional details are provided in resource report 2) depending on the type and intended function of the pipe. Water for hydrostatic testing of plant piping will be obtained from a local municipal supply or the Mississippi River. Pipeline test segments will be capped and filled with water. The pipe test section will then be pressurized and hydrostatically tested. Any loss of pressure that cannot be attributed to specific factors such as temperature changes will be investigated. Any leaks detected will be repaired and the test section retested.

Hydrostatic test water will be obtained in compliance with Louisiana regulations. The Applicants will screen hydrostatic test water intake to minimize adverse impacts on aquatic organisms. Water used for hydrostatic testing will be reused in subsequent tests to the extent practical. Test water will be discharged through energy dissipating devices (e.g., straw bale filter structure) in accordance with the requirements of a LPDES hydrostatic discharge permit using methods described in the Procedures. Test water will contact only new pipe, and no chemicals will be added. Once a pipe segment has been successfully tested, the test cap and manifold will be removed, and the pipe will be tied into the remainder of the pipeline for drying operations. The Applicants do not anticipate that any chemical agents will be added to the test water. Additional details are provided in Resource Report 2 regarding source, uptake and discharge rates, discharge location and estimated volume of water needed for the hydrostatic testing of facility components.

When the construction of the Expansion Facilities is nearly 70-percent complete, the focus will shift from construction by area to completion of specific systems. At this point, civil and structural work will be substantially complete, and equipment and piping set in place. The main schedule drivers will be mechanical completion and pre-commissioning requirements. A turnover coordinator will prepare system completion and turnover packages, which will include the following items:

- marked-up drawings to show the limit of each system and blind flanges locations;
- line list by system with pressure testing documentation;
- equipment list including motors with data sheets and inspection reports;
- marked-up single line diagrams with inspection/test reports for electrical equipment;
- cable reports;
- instrument index with data sheets and calibration sheets;
- loop diagrams;
- vendor documentation/drawings;
- turnover exceptions lists;
- detailed punch-list of items requiring correction; and
- operation and maintenance manuals.

Dredging Requirements

The Applicants do not anticipate that dredging or excavation will be required for the LNG carriers to access the LNG loading berth. The location of the LNG carrier berthing area in the Mississippi River will be reviewed under the U.S. Army Corps of Engineers ("USACE") Section 404 and 408 programs, the LDEQ Section 401 program, and the Louisiana Department of Conservation and Energy ("LDCE") Office of Coastal Management.

Interconnecting Trestle Construction/Fabrication

The Applicants will construct an approximately 1,000-foot-long aboveground trestle that will support one new 42-inch-diameter cryogenic LNG transfer line and connect the Expansion Facilities with the proposed LNG loading berth. More detailed information about trestle construction/fabrication is provided in resource report 13.

Drainage of the Finished Site

The Expansion Site will be graded such that stormwater flow from process areas will enter a peripheral system of shallowly sloped swales that will collect and carry the runoff to perimeter outfall locations adjacent to the Plaquemines LNG Terminal. Before arriving at the outfalls, the stormwater will pass through surficial containment sump devices designed to remove oil and sediments from the stormwater. Areas that do not have the potential for contamination will be carried directly to outfalls. Portions of the site where the topography remains unchanged will retain their natural drainage. A detailed stormwater conveyance plan will be provided prior to construction.

The design and operation of all stormwater discharge and treatment facilities will be in accordance with applicable regulations and permits, including LPDES regulations under the Clean Water Act ("CWA").

1.5.4 Site Access and Traffic

The Applicants have prepared a Traffic Impact Study and Traffic Management Plan to address worker and materials/equipment transportation for the Project construction areas (see resource report 5, appendices 5B and 5C, respectively). The plans comply with state and local regulatory requirements and contains specific routing information and delivery timelines. The Expansion Site can be accessed by road from Belle Chase, Louisiana, heading southeast about 20 miles via SH 23 along the Mississippi River (see figures 1.3-1 and 1.3-2 in appendix 1A [filed under separate cover as CUI/CEII]). The Applicants anticipate that, during construction, major material supplies and equipment will be delivered by barge via the MOF on the Mississippi River at the Plaquemines LNG Terminal, or via truck by SH 23.

Construction of the Project will use the existing MOF associated with the Authorized Facilities to deliver permanent plant components, steel and concrete piles, and certain bulk materials during construction that cannot be delivered by road. The Applicants intend to use the MOF to the extent possible to minimize deliveries to the construction site by truck. The Applicants estimate that the MOF will accommodate about 630 vessel deliveries (ships and barges combined) or about one delivery from barge or other vessel type every other day for the first 42 months of construction. Additional information regarding frequency and impacts associated with truck trips, as well as worker transportation and commuting measures is provided in the Traffic Management Plan (resource report 5, appendix 5C). The overall intent of the plan is to minimize

construction-related disruption to local traffic and local use of the waterways, and to ensure that such local use proceeds in a safe and efficient manner.

1.6 OPERATION AND MAINTENANCE

1.6.1 Operation

All facilities will be operated and maintained in accordance with applicable government safety standards and regulations intended to ensure adequate protection of the public and to prevent facility accidents and failures. These standards and regulations include, as applicable, the DOT Federal Safety Standards for Liquefied Natural Gas Facilities (49 CFR Part 193), NFPA Standard 59A, and applicable sections of the USCG's regulations for Waterfront Facilities Handling Liquefied Natural Gas and Hazardous Gas (33 CFR Part 127 and Executive Order 10173).

Operating procedures will be prepared for the Project after the final design is completed. The procedures will address safe startup, shutdown, cool down, purging, as well as routine operation and monitoring. Comprehensive training will be provided to ensure that all facility personnel are familiar with, and adhere to, properly documented and recognized safety procedures. The potential hazards of cryogenic LNG operations and proper equipment operation will be two areas of focus. Operators will meet the applicable training requirements of the DOT, USCG, and other regulatory entities.

The Applicants will update the existing Emergency Response Plan for the Authorized Facilities to include the Expansion Facilities and will address safety procedures during weather events, including storm surges and hurricanes (this updated plan will be provided during detailed design). Efforts will be made to coordinate with and involve appropriate local officials to ensure effective integration with local communication and emergency response systems.

1.6.2 Maintenance

Maintenance of the Expansion Facilities will be conducted in accordance with the provisions of 49 CFR Part 193, Subpart G and applicable laws and regulations, and through procedures and programs developed by the Applicants. Full-time staff will conduct routine maintenance and minor repairs, whereas major overhauls and non-routine maintenance will be handled by specialty contractors. Both scheduled and unscheduled maintenance will be entered into a computerized maintenance management system and disseminated to the appropriate personnel for follow-up. All operations and maintenance personnel will be trained in the use of the computerized maintenance management system. Scheduled preventive and predictive routine maintenance will include equipment rotation and inspection of safety equipment, environmental equipment, and instrumentation. All maintenance activities will be performed by trained maintenance technicians reporting to a maintenance supervisor.

1.7 FUTURE EXPANSION AND ABANDONMENT PLANS

Beyond the Project, the Applicants have not identified any future expansions or abandonment plans for the Expansion Facilities, which is projected to have a minimum design life of 30 years.

1.8 NON-JURISDICTIONAL FACILITIES

Under certain circumstances, non-jurisdictional facilities may be subject to the Commission's review. In determining whether to assert jurisdiction, the Commission considers the following four factors:

- whether or not the regulated activity comprises "merely a link" in a corridor-type project (e.g., a transportation or utility transmission project);
- whether there are aspects of the non-jurisdictional facility in the immediate vicinity of the regulated activity that uniquely determine the location and configuration of the related activity;
- the extent to which the entire project will be within the Commission's jurisdiction; and
- the extent of cumulative federal control and responsibility.

The Applicants have identified all the proposed facilities at the Project site as jurisdictional and subject to FERC authorization. Non-jurisdictional facilities, which will be authorized and regulated by Louisiana state agencies, will include construction of an intrastate natural gas pipeline to provide natural gas supply to the Project and new utility service connections to a local electric power system, water supply, and fiber optic telecommunications.

1.8.1 Intrastate Natural Gas Pipeline

The Project will receive natural gas via a planned, new non-jurisdictional intrastate natural gas pipeline, the Cloud Connector Pipeline, which will be constructed and operated by Cloud Connector, LLC under the jurisdiction of the LDCE pursuant to the Louisiana Natural Resources and Energy Act of 1973. The natural gas is required to supply the Plaquemines Expansion with gas for power generation facilities and liquefaction. The intrastate pipeline will be put in-service on a phased schedule, with the final in-service date projected for February 2029. Additional information about the Cloud Connector Pipeline is provided in appendix 1H.

Additional information about the interconnect facility for this pipeline to the Expansion Facilities is provided in section 1.3.1.1 and additional information regarding capacity and pressure is provided in resource report 13, section 13.1.1.5.

A summary of the required permits for the Cloud Connector Pipeline is provided in table 1.8-1, which reflects information available to the Applicants. The proposed Cloud Connector Pipeline is not an extension of Venture Global Gator Express, LLC's pipeline system (i.e., the affiliated interstate pipeline that was constructed to transport gas to Plaquemines LNG's Authorized Facilities). The proposed Cloud Connector Pipeline is expected to initially transport only natural gas produced within the state of Louisiana and, to that end, plans to interconnect with various other intrastate pipelines within Louisiana. It is not expected to be an interstate pipeline, so there are no plans to request authorization under NGA Section 7 for the project.

TABLE 1.8-1

Plaquemines Expansion Project
Summary of Required Permits for Proposed Non-Jurisdictional Pipeline

Agency	Permit/Approval
FEDERAL AGENCY	
U.S. Army Corps of Engineers	Clean Water Act (CWA) Section 404 Permit for impacts on Waters of the United States, including wetlands (33 USC § 1344)
	Rivers and Harbors Act (RHA) Section 10 Permit for construction and operation of structures in and across federally navigable waters (33 USC § 403)
	33 USC § 408 (5 Federal Levee Crossings)
National Marine Fisheries Service – Southeast Region (NMFS)	Endangered Species Act (ESA) Section 7 Consultation (16 USC § 1856 et seq.)
	Essential Fish Habitat Consultation (50 CFR Part 600)
	Fish and Wildlife Coordination Act Consultation (16 USC § 661 et seq.)
U.S. Fish and Wildlife Service (FWS)	ESA Section 7 Consultation (16 USC § 1536)
	Migratory Bird Treaty Act (16 USC § 703 et seq.)
	Fish and Wildlife Coordination Act Consultation (16 USC § 661 et seq.)
STATE AGENCY	
Louisiana Department of Environmental Quality (LDEQ) – Air Permits Division	Title V and Prevention of Significant Deterioration (PSD) Air Permits (40 CFR Part 70)
Louisiana Department of Environmental Quality (LDEQ) – Water Permits Division	Section 401 Water Quality Certification (33 USC § 1341)
	Louisiana Pollutant Discharge Elimination System - Hydrostatic Test Water Discharge General Permit; Construction Stormwater Discharge Permit; Industrial Wastewater Discharge Permit (LA R.S. 30:2001 et seq.).
Louisiana Department of Conservation and Energy (LDCE), Pipeline Division	Notice of Construction
Louisiana Department of Conservation and Energy (LDCE) – Office of Coastal Management (OCM)	Coastal Use Permit (CUP), a Joint Permit Application with the COE (R.S. 49:214.25)
	Water Use Agreement
Louisiana Department of Wildlife and Fisheries (LDWF)	State-Listed Species Clearance
	Letter of Authorization – Grassy Lake Wildlife Management Area (WMA) and Richard K Yancey WMA
Louisiana Office of State Lands	Pipeline Right-of-Way Grant
Louisiana Department of Culture, Recreation and Tourism, Division of Archaeology	Consultation under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR Part 800)
LOCAL LEVEE DISTRICTS	
Levee Districts (North Lafourche Levee District, Terrebonne Levee and Conservation District, Plaquemines Levee District)	Individual Authorizations from each Levee District; 10 levee systems crossed
TRIBAL OUTREACH	
Federally Recognized Tribes	Consultation under Section 106 of the NHPA (36 CFR Part 800)

1.8.2 Utility Service Connections

In addition to onsite utility systems existing for the Authorized Facilities, the Project will require new utility service connections to support operation. The connections will include tie-ins to the electric power grid from Entergy, potable water service from a local utility provider, and fiber optic telecommunications. The utility interconnections will be developed in coordination with the appropriate service providers and will be designed to meet the operational demands of the Project, and constructed and operated in compliance with applicable regulations. All utility service connections are expected to be located immediately adjacent to the Expansion Facilities along SH 23 within the utility/drainage workspace illustrated in figures 1.1-1 and 1.1-2.

1.9 PERMITS AND APPROVALS

The Applicants will ensure that all necessary permits, clearances, and licenses for Project construction and operation are obtained by the time they are required. Table 1.9-1 in appendix 1B provides a list of required authorizations and identifies the applicable federal, state, or local agency or other authority in each case. Initial consultation with permitting agencies commenced in May 2025. Copies of the initial correspondence with agencies are appended to the appropriate resource reports.

1.10 AGENCY, PUBLIC, AND OTHER STAKEHOLDER COMMUNICATIONS

In the NGA, Congress instructed FERC to issue approvals of proposed LNG export terminals unless FERC finds the proposed project will not be consistent with the public interest. On March 6, 2025, the Applicants requested that FERC initiate the pre-filing process for National Environmental Policy Act review of the Project. This request was approved on April 4, 2025 and the Project was assigned pre-filing Docket No. PF25-7-000.

One of the objectives of the pre-filing process is to identify interested stakeholders and provide opportunities for involvement early in the Project planning process to identify and resolve issues, where possible, prior to the filing of a formal application. The Applicants began discussions with potential stakeholders in May 2025 and will continue these efforts throughout the life of the Project. The Applicants believe that public engagement provides a valuable opportunity for stakeholder input. Thus, the Applicants are committed to communicating with landowners and other stakeholders and will continue to refine the Project, where feasible, in response to input received from landowners, the public, agencies (including FERC environmental staff), and other stakeholders.

The Applicants will continue to meet with various groups and individuals regarding the Project, as outlined in the Public Participation Plan included as an attachment to in the Project pre-filing request letter dated March 6, 2025. The Applicants will work in good faith with stakeholders to identify and address issues early and proactively. The public consultation team, with the support of the constituent departments of our Project team (e.g., engineering, construction, legal, external affairs, and environmental compliance) will collaborate to implement the Public Participation Plan, which includes the following key program elements:

- Identify and meet with local associations, affected public groups and other non-governmental organizations about the Project and any potential impacts on the community or stakeholder's interests on an ongoing basis.

- Designate a single point of contact for the public to direct comments and questions.

- Mr. AJ Walker is the point of contact.

- Establish a website presence, a Project e-mail address, a toll-free Project phone number, and a Project mailing address:

  Website: http://www.ventureglobal.com/
  Toll-free number: 1 (800) 514-0833
  Email address: landowner@ventureglobalIng.com

  Mailing address:
  1401 McKinney Street, Suite 2600
  Houston, Texas 77010

- Conduct consultation meetings with community leaders and elected officials on a regular basis.

- Host open house meetings for communities, elected officials, landowners and other stakeholders.

- Produce and distribute informational materials regarding the Project, including letters to affected landowners notifying them of the start of construction.

- Support on-going public outreach throughout the life of the Project.

- Document and respond to questions and issues raised through this iterative engagement process.

As part of the public participation process, the Applicants held three open houses on May 19, 20, and 21, 2025. Table 1.10-1 identifies the public open houses dates and locations that the Applicants held. In total, about 100 people attended the three open houses. Landowners and other stakeholders were notified of the open houses in May 2025 informational letters. The Applicants also notified the public of the open houses by posting a social media flyer on several local Facebook Groups. The social media flyer was shared by Louisiana Gateway Port, Plaquemines Parish Council Member from District 8 Mitch Jurisich, and Plaquemines Parish Council Member from District 3 Chris Schultz. Additionally, Oil & Gas Water and the FERC Office of Public Participation also posted their own notifications about the open house meetings, not using the social media flyer created by the Applicants.

TABLE 1.10-1

Plaquemines Expansion Project
Summary of Plaquemines Expansion Open Houses

Date	City	Location	Number of Attendees
May 19, 2025	Belle Chasse	Belle Chasse Auditorium 8398 Highway 23 Belle Chasse, LA 70037	50
May 20, 2025	Port Sulphur	Port Sulphur YMCA 278 Civic Drive Port Sulphur, LA 70083	28
May 21, 2025	Braithwaite	Rev. Percy M. Griffin Community Center 15577 Highway 15 Braithwaite, LA 70040	25

Landowners the open houses were primarily interested in increased traffic caused by the Project, improvements to road conditions, and in Port Sulphur specifically, the evacuation procedure. Other topics raised by attendees included air pollutant byproducts, noise from ship traffic, safety concerns, infrastructure improvements to the local community, impacts on the Parish water system, fugitive dust, wetland mitigation credits and restoration, stormwater discharges, and permanent jobs.

On July 14, 2025, the Applicants filed with FERC a letter for the Project (see Accession No. 20250714-5201). The letter notified FERC that the Applicants increased the number of liquefaction blocks to be permitted from 12 to 16, and because of this modification, the proposed production capacity of the Project increased from 18.6 MTPA to about 24.8 MTPA[6]. Additionally, based on traffic congestion during construction feedback received during the open houses described above, the Applicants identified the need for additional workspace to alleviate and address traffic concerns. The Applicants determined that a larger laydown area that is contiguous to the Project site would reduce the number of vehicle and truck trips necessary during construction. Therefore, the proposed Project footprint was increased to include an additional 562 acres east of the previously submitted Project footprint.

On July 18, 2025, the Applicants notified additional landowners within 0.5 mile of the increased footprint of the Project, and notified the previously notified landowners and stakeholders of the modification. Examples of these mailings are provided in appendix 1E.

The Applicants, FERC staff, and interested agencies have engaged in biweekly pre-filing Project calls to discuss the application and permitting processes, the minutes of which have been posted to the FERC docket. FERC staff held public scoping sessions on August 12 and 13, 2025, at the Belle Chasse Auditorium in Belle Chasse, LA, and at the Port Sulphur YMCA in Port Sulphur, LA. Notice of the scoping meetings was published on July 29, 2025 (see Accession No. 20250729-3029).

Comments received during the public scoping sessions included concerns over traffic congestion during construction, support for the Project due to job creation and greater tax revenue and benefits for community businesses. Additionally, at the August 13, 2025, meeting in Port Sulphur, Plaquemines Parish President Keith Hinkley acknowledged that water issues experienced within the parish during the recent construction of the Authorized Facilities were attributed to the parish infrastructure itself and were not caused by construction of the Authorized Facilities.

In accordance with 18 CFR § 157.6(d)(2), the Applicants will send formal written notification to all landowners within 0.5 mile of the proposed Project location within three business days following the date the Commission issues a Notice of Application. Additionally, the Notice of the Application will be published in newspapers of record in the local area and copies of the public version of the Project's Application will be placed in one or more local public libraries to facilitate review by members of the community who do not have access to the other methods provided above.

An example of Project correspondence to landowners and stakeholders to date is provided in appendix 1E. A copy of the Project landowner mailing list is included in appendix 1F and a

[6] At the time of filing this application, the Applicants increased the Project's proposed production capacity to an average annual capacity of 26.5 MTPA with a peak capacity of up to 31 MTPA.

copy of the Project stakeholder mailing list is included in appendix 1G (filed under separate cover as CUI/PRIV).

1.11 CUMULATIVE IMPACTS AND INDIRECT EFFECTS

Pursuant to former 40 CFR § 1508.7, a "cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

To adequately address and accomplish the purpose of this analysis, an action must first meet the following criteria:

- The action causes impacts on a resource that would be affected by the proposed Project.
- The action causes impacts within all or part of the geographic scope of the proposed Project.
- The action causes impacts within all or part of the temporal scope of the proposed Project.

Table 1.11-1 outlines the resource-specific geographic regions considered for cumulative impact assessment.

TABLE 1.11-1

Plaquemines Expansion Project
Resource-Specific Geographic Regions for the Cumulative Impact Assessment

Environmental Resource	Geographic Scope for Cumulative Impacts	Justification for Geographic Scope
Groundwater, surface water, canals, and wetlands	Hydrologic Unit Code (HUC)-12 sub-watershed • HUC-030104040809 - Planters Canal • HUC-080901000101 - Mississippi River-Bonnet Carre Spillway	Impacts on groundwater and surface water resources could reasonably extend throughout a HUC-12 sub-watershed (i.e., a detailed hydrologic unit that can accept surface water directly from upstream drainage areas, and indirectly from associated surface areas such as remnant, noncontributing, and diversions to form a drainage area with single or multiple outlet points), as could the related impacts on aquatic resources and fisheries. See Resource Report 2.
Vegetation and wildlife	HUC-12 sub-watershed • HUC-030104040809 - Planters Canal • HUC-080901000101 - Mississippi River-Bonnet Carre Spillway	Consideration of impacts within a HUC-12 sub-watershed sufficiently accounts for impacts on vegetation and wildlife that would be directly affected by construction activities and for indirect impacts such as changes in habitat availability and displacement of transient species. See Resource Report 3.
Cultural resources	Overlapping impacts within the Area of Potential Effects	The Area of Potential Effects for direct effects (physical) includes areas subject to ground disturbance, while the Area of Potential Effects for indirect effects (visual or audible) includes aboveground ancillary facilities or other Project elements visible from historic properties in which the setting contributes to their National Register of Historic Places eligibility. See Resource Report 4.
Socioeconomics	Affected parishes	Affected parishes would experience the greatest impacts associated with employment, housing, public services, transportation, traffic, property values, and economy and taxes. See Resource Report 5.

TABLE 1.11-1

Plaquemines Expansion Project
Resource-Specific Geographic Regions for the Cumulative Impact Assessment

Environmental Resource	Geographic Scope for Cumulative Impacts	Justification for Geographic Scope
Marine transportation	Mississippi River	Affected navigable waterways would experience the greatest impact downstream from the LNG facility. See Resource Report 5.
Soils and surficial geology	Construction workspaces	Impacts on soils and surficial geology would be highly localized and would not be expected to extend beyond the area of direct disturbance associated with the Project. See Resource Reports 6 and 7.
Land use	1.0 mile	Impacts on general land uses would be restricted to the construction workspaces and the immediate surrounding vicinity; therefore, the geographic scope for land use and recreation is 1-mile from the proposed Project. See Resource Report 8.
Visual	The distance that the tallest feature at the planned facility would be visible from neighboring communities	Assessing the impact based on the viewshed allows for the impact to be considered with any other feature that could have an effect on visual resources. See Resource Report 8.
Noise – operation	1.0 mile	Assessing the impact based on any facility that would affect any areas within 1.0 mile of the aboveground facilities allows for the impact to be considered with any other feature that could have an effect on noise resources. See Resource Report 9.
Noise – construction	0.25 mile	Areas in the immediate proximity of aboveground facility construction activities (within 0.25 mile) would have the potential to be affected by construction noise. See Resource Report 9.
Air quality – operation	31.1 miles (50.0 kilometers)	Impacts on air quality beyond 50 kilometers (31.1 miles) would be *de minimis*. See Resource Report 9.
Air quality – construction	0.25 mile	Air emissions during construction would be limited to vehicle and construction equipment emissions and dust and localized to the proposed Project's construction area. See Resource Report 9.

Construction is anticipated to commence by early 2027, with first production of LNG targeted during 2029. Table 1.11-2 in appendix 1B lists the projects that, in conjunction with the Plaquemines Expansion Project, could cause or contribute to potential cumulative impacts on environmental resources in the study area. The locations of these projects are depicted in figure 1.11-1 in appendix 1A. A brief description of each of the projects and an analysis of potential cumulative impacts by resource are provided below.

1.11.1 Projects and Other Reasonably Foreseeable Future Actions Considered in the Cumulative Impacts Analysis

1.11.1.1 Industrial Developments

The NOLA Terminal is a multi-use terminal with storage and export docks at mile marker 59 on the west bank of the Mississippi River. It will be the first terminal in the region capable of accommodating New-Panamax class vessels. The project is situated approximately 1.0 mile north of the Expansion Facilities. Phase one involved construction of the wharves and docks, which was completed in 2022. Phase two construction for the land-side storage facilities and transport has not yet started (NOLA Terminal, 2025).

The Plaquemines LNG Terminal is an LNG export facility l under phased construction and commissioning by Plaquemines LNG; it is located adjacent to the Expansion Facilities and was approved by FERC in 2019 under FERC Docket No. CP17-66-000. Construction activities began in 2021 and continue to be underway. The facility includes liquefaction trains, natural gas pre-

treatment trains, three ship loading berths, two combined cycle gas turbine power plants, a MOF on the Mississippi River, and two pipelines that connect to existing interstate natural gas pipelines (Venture Global, 2025).

Louisiana Gateway Container Terminal, located on the west bank of the Mississippi River at mile marker 51, is a planned port facility designed to accommodate growing containerized cargo demand. The terminal will include three ship berths equipped with six ship-to-shore cranes, an intermodal rail yard consisting of four tracks at an average length of 3,800 feet and one track of similar length extending to the southern end of the terminal, and is expected to handle up to 1 million 20-foot equivalent units annually. The project will initially be situated on a 200-acre site under a 30-year lease agreement, with the potential for future expansion up to 900 acres. It will include an intermodal yard to streamline the transfer of containers, and a rail spur extending from the proposed container terminal site to the short-line New Orleans & Gulf Coast Railway Company. The project is supported in part by the issuance of infrastructure bonds (Bujanda & Allen, 2024).

The Venture Global CCS Plaquemines carbon capture and sequestration ("CCS") project will sequester CO_2 produced at the Authorized Facilities and the Expansion Facilities. CO_2 emissions will be captured from the acid gas removal unit and transported via pipeline to state-managed subsurface saline aquifers beneath Barataria Bay. The CO_2 will be compressed into a dense phase, pumped into the ground, and permanently stored. Each train includes compression equipment, an integral dehydration package, and CO_2 pumping equipment. The unit will also include a designated vent stack, temporary storage for separated water, and tie-ins to the CO_2 transportation pipeline. In September 2022, the Louisiana State Mineral and Energy Board approved an operating agreement for pore space located in Plaquemines Parish (Louisiana State Mineral and Energy Board, 2022).

The former Alliance Refinery, now Belle Chasse Terminal, in Belle Chasse, Louisiana refined crude oil into petroleum products and petrochemicals. Damage from Hurricane Ida caused the refinery to shut down in 2021. Subsequently, the refinery was turned into a crude oil terminal. Phillips 66 sold this terminal to Harvest Midstream, and it now operates as a crude storage and transfer facility with approximately 1 million barrels of storage and two docks on Mississippi River. It no longer performs any refining activities (Oil & Gas Watch, 2025; Harvest Midstream, 2022).

The Gulfstream LNG project is a proposed LNG export terminal six miles southeast of the Expansion Facilities. It is in pre-filing with FERC under Docket No. PF24-5-000 and construction has not started. If constructed, the facility would involve two feed gas processing trains, three LNG liquefaction trains, one LNG storage tank and tank protection system, two marine berths, and an on-site generation plant (FERC, 2025).

1.11.1.2 Other Developments

The Mississippi River Ship Channel, Gulf to Baton Rouge project is a USACE project in coordination with the non-federal sponsor, the Louisiana Department of Transportation and Development ("LADOTD"). The project aims to deepen the Mississippi River channel through dredging operations and modifications to river infrastructure to allow ships a 50-foot draft for approximately 256 miles from the Gulf of America[7] to Baton Rouge, Louisiana. Construction activities are ongoing, following the USACE's issuance of the Final Environmental Impact

[7] On January 20, 2025, President Trump issued Executive Order renaming the Gulf of Mexico as the Gulf of America.

Statement in 2018 (USACE, 2018). The Mississippi River in front of the Expansion Facilities is naturally greater than 55 feet in depth and does not require construction or operation and maintenance to provide deep draft access. Therefore, this USACE project will not occur directly in front of or in the areas directly surrounding the Expansion Facilities.

The Grand Bayou and Marsh Restoration project, managed by the Louisiana Coastal Protection Restoration Authority ("CPRA"), restored marsh habitat and established a ridge of woody species on the western edge of the Mississippi approximately six miles southeast of the Expansion Facilities (CPRA, 2024). This project is in construction, with Increment 2 in pre-construction.

The Alliance Booster Station and New Water Line to Port Sulphur involve construction of a water booster station in Alliance, Louisiana and the installation of a transmission line to deliverable potable water from the station to Port Sulphur, collectively referred to as the parish water line. The Booster station is approximately seven miles northwest of the Expansion Facilities; however, the water line will cross the Plaquemines LNG Terminal and Expansion Facilities properties because it runs along SH 23. The booster station and Phase 1 (which is between the Alliance Booster Station and Hermitage Road) is complete, while Phase 2 (which is located between Heritage Road and Port Sulphur Water Treatment Plant) is under construction and likely to be completed in 2025. The Port Sulphur Water Treatment Plant and Water Intake is an abandonment project by the Plaquemines Parish Water Department to convert the facility into a booster station as part of parish-wide infrastructure upgrades. The water treatment plant includes reverse osmosis technology to mitigate the impact from the Mississippi River saltwater intrusion. Construction has been completed; therefore, the cumulative impacts associated with the water treatment plant are limited to water resources.

The Cloud Connector Project is a proposed intrastate natural gas pipeline that will provide natural gas to the Authorized Facilities and associated Expansion Facilities. The project is anticipated to be in-service date of February 2029. Additional information about the project is provided in appendix 1H.

The Cabri pipeline is a planned intrastate natural gas pipeline designed to provide feed gas supply to the Authorized Facilities, consisting of a new 6-mile intrastate pipeline segment and a compressor and metering station. The project is anticipated to be in service in 2027.

As part of ongoing redevelopment associated with the Louisiana Gateway Port, two existing port tenants, Port Ship Service, Inc. (also known as Port Ship Services Davant) and Belle Chasse Marine-Davant Launch, may be relocated approximately 1 mile downstream of their locations adjacent to the Project just north of SH 23. They will serve the same operational functions and will require reconstruction of associated marine infrastructure at the new sites. Existing facilities and structures are planned to remain in place and are not proposed for removal. The schedule for potential relocation of these facilities is unknown and unrelated to the Expansion Project, as these port tenants are outside of the U.S. Coast Guard required safety and security zones while LNG carriers are moored or arriving/departing at the proposed marine berth.

Two borrow pit locations are located near the Project, which provide essential fill material for other projects. The Plaquemines Dirt & Clay Company owns approximately 600 acres of land that is divided into a north pit and a south pit with a large Parish-maintained levee along a manmade drainage canal (Steeg Law, 2021). The Woodland Borrow Pit is split into north and south areas directly east of the Plaquemines Dirt & Clay Company borrow pits. The Woodland

North Borrow Pit has supplied levee-grade soils for USACE flood protection initiative projects, including the New Orleans to Venice Hurricane Protection efforts (USACE, 2021).

The Mid-Barataria Sediment Diversion was a coastal restoration project led by the CPRA which aimed to reconnect the Mississippi River to the Barataria Basin by diverting sediment-rich water to rebuild marshland. On July 17, 2025, CPRA canceled the project due to high construction and mitigation costs, public opposition, and ecological risks (RESTORE, 2025).

The LADOTD is planning road extension and bridge projects to support the transportation network in Jefferson and Plaquemines Parishes. These projects include the proposed extension of Peters Road across the Gulf Intracoastal Waterway via a new high-level bridge, which would improve vehicular and freight connectivity between SH 3017 and SH 23. As part of the project, the road centerline and right-of-way would relocate approximately 1.8 miles south to accommodate the right of way for the Peters Road rail corridor realignment project (Bujanda & Allen, 2024, LADOTD, 2025). The Peters Road relocation construction is ongoing. The Gulf Intracoastal Waterway bridge is in the planning stage and construction has not started.

1.11.2 Potential Cumulative Impacts by Resource

1.11.2.1 Groundwater

The Project will not utilize groundwater for its process or firewater needs, instead sourcing this water from the Mississippi River and municipal sources. Direct and indirect impacts on groundwater from the Expansion Facilities will be minor and localized as discussed in resource report 2. Due to the high salinity of localized groundwater resources in Plaquemines Parish, groundwater is not a significant source of industrial or potable water in the parish. However, cumulative groundwater withdrawals could have the potential to increase drawdown in the Gramercy aquifer and Coastal Lowlands aquifer system.

Because the primary industrial users in the cumulative study do not withdraw significant quantities of groundwater, cumulative depletion effect on the local aquifer is not anticipated. A potential for cumulative impacts on groundwater resources exists when considering other projects in the vicinity, specifically the adjacent Plaquemines Dirt & Clay Borrow Pit and the Woodland Borrow Pit. Large scale excavation at these borrow pits has the potential to alter local shallow groundwater flow patterns or create a localized drawdown effect on the surficial aquifer. The Venture Global CCS Plaquemines project will involve the deep-well injection of CO_2 into saline aquifers, which are geologically isolated from and not part of the shallow aquifers used for potable or agricultural purposes, and therefore could affect the subsurface aquifers beneath Barataria Bay. The Cabri Pipeline will cross the same sub-watershed crossed by the Project. However, the Project's own contribution to these potential cumulative effects is expected to be negligible.

The Expansion Facilities are located within two HUC 12 sub-watersheds: HUC-030104040809 (Planters Canal) and HUC-080901000101 (Mississippi River–Bonnet Carré Spillway). Of these, HUC-030104040809 is the smaller, more localized watershed, directly encompassing the Project site. The only other project within this watershed is the Plaquemines LNG Terminal, which is already under construction. Although other projects in table 1.11-2 may overlap with the HUC-080901000101 watershed along the Mississippi River, the marine berth of the Expansion Facilities is limited in its reach and will not perform dredging. Therefore, the Expansion Facilities will not contribute to cumulative impacts on groundwater resources in the vicinity.

Groundwater disruption may occur outside of the HUC 12 sub-watersheds associated with the Project. There are borrow pits directly adjacent to the Expansion Facilities, which may alter groundwater flow in the area and contribute to drawdown in the overall aquifer system.

To minimize potential impacts on groundwater resources from the Expansion Facilities construction and potential spills or leak of hazardous liquids, the Applicants will implement the measures in the Plan and Procedures, SWPPP, and SPRP. Additionally, the Applicants will adhere to the LPDES permits for water discharges during construction and operation. Other industrial facilities in the area are required to develop and adhere to SWPPPs and other spill prevention plans as well, which minimizes the risk of accidental releases that could contaminate groundwater. For these reasons, potential cumulative impacts on groundwater associated with the construction and/or operation of the Expansion Facilities will not be significant.

1.11.2.2 Surface Waters, Canals, and Wetlands

Construction and operation of the Expansion Facilities will affect surface waters, and result in the permanent loss of wetland acreage. Some portions of the construction area required for the Expansion Facilities will overlap with previously developed areas of the Plaquemines LNG Terminal; however, new impacts will occur outside of the Plaquemines LNG Terminal to accommodate the Expansion Facilities. Grading activities, fill activities, and spills or leaks of hazardous materials could affect surface water resources. Construction and operation impacts will primarily impact man-made drainage ditches at the Expansion Site, which will be filled to support construction of the facilities. No dredging will occur within the Mississippi River.

Any projects involving dredge and fill or obstructing the navigable capacity within waters of the United States would require a Section 10 of the Rivers and Harbors Act and/or Section 404 CWA authorizations from the USACE and corresponding Section 401 CWA Water Quality Certifications. These authorizations require implementation of spill prevention plans during construction and operations. Although a spill or leak from any of the proposed projects could be significant, it is unlikely that multiple actions would result in spills or leaks in the same relative timeframe to produce a significant cumulative effect given the regulatory environment regarding spill prevention. Thus, the cumulatively increased risk associated with spills or leaks of hazardous materials would be minor.

Several regional projects could contribute to cumulative impacts on water resources. The NOLA Terminal is located upstream of the Expansion Facilities and involves construction of riverfront export docks. Construction activities may result in limited wetland impacts and potential sedimentation or stormwater runoff. The Applicants will implement a SWPPP to manage the effects of additional impervious surfaces at the Facilities and resulting cumulative impacts to floodwater storage. The Plaquemines LNG Terminal is under construction but has already undergone grading and wetland fill and is not expected to have overlapping construction with the Expansion Facilities.

The Louisiana Gateway Container Terminal is downstream of the Expansion Facilities and will involve work within the Mississippi River for the container terminal and increase impervious surfaces with potential for runoff at the railyard. The Cloud Connector Project, which will tie into the Plaquemines LNG Terminal, will cross numerous surface waters and wetlands, where construction would involve trenching, hydrostatic test discharges, and wetland disturbances. The Cabri Pipeline will also tie into the Plaquemines LNG Terminal. If constructed concurrently with the Expansion Facilities, localized increase in sedimentation or accidental discharges would contribute to cumulative effects on the regional water quality. Similarly, the Venture Global CCS

Plaquemines project will be located adjacent to the Project, and will involve construction of a CO_2 pipeline, which will require crossing wetland and waterbodies, potentially resulting in temporary increases in turbidity and sedimentation. The Gulfstream LNG project would involve filling wetlands and reconfiguring surface drainage systems, and therefore could have cumulative impacts on regional hydrology, especially if construction phases overlap. The Alliance Booster Station is upstream of the Expansion Facilities, and the water line will cross the Plaquemines LNG Terminal and Expansion Facilities properties as it is located with SH 23 right of way. If constructed concurrently with Expansion Facilities, increased sedimentation would contribute to regional water quality impacts. Construction on the Medium Diversion at Myrtle Grove has not yet been planned, but could potentially affect sedimentation levels and water levels, which would both affect the regional water quality near the Expansion Facilities.

During dry periods and low river flow, the water within the Mississippi River at this location may become too saline for human consumption which places pressure on regional water supplies that may need to be trucked or barged in to offset municipal intakes within the river located downstream. The Expansion Facilities' water treatment facility will be designed to remove chlorides from the river to allow the facility to operate during periods of low flow and reduce pressure on regional water supplies that may be needed to offset potable water needs within the community.

The borrow pits near the site may cumulatively impact water resources through potential runoff; however, if the Project requires fill from these facilities, the nearby pits will eliminate the need to transport in fill from further away, reducing overall stress on transportation and air emissions.

Projects located directly on the Mississippi near the Expansion Facilities have the potential to contribute to cumulative impacts on water resources and Mississippi River conditions. The potential relocation of the Port Ship Service and Belle Chasse Marine-Davant Launch marine-focused businesses to approximately one mile downstream will involve reconstruction of those facilities, which may involve in-water activities such as pile driving and shoreline stabilization.

The projects mentioned above are anticipated to follow best management practices, implement site-specific SWPPPs, plans and seek authorization under the CWA. The Applicants will follow the Plan and Procedures to avoid or minimize effects on wetlands, as well as implement mitigation measures to reduce the potential for hazardous spills. Additionally, the Applicants will be required to mitigate unavoidable impacts on wetlands through the USACE and LDCE permitting process. The Applicants will source appropriate compensatory mitigation from an available nearby USACE-approved mitigation bank. Resource report 2 further discusses mitigation strategies. Therefore, although Project construction and operation will result in unavoidable permanent wetland loss and other long-term impacts, these impacts will be offset with appropriate compensatory mitigation.

1.11.2.3 Fisheries, Wildlife, Endangered and Threatened Species

During construction of the Expansion Facilities, impacts on fisheries and other aquatic resources will result from the excavation, inadvertent release of hazardous materials, pile driving, traffic in the Mississippi River, and construction-related stormwater runoff. However, these impacts will be short term and localized, and adherence to construction best management practices and mitigation measures, permit conditions, and Project-specific construction and operation plans will minimize impacts on local aquatic resources that may be present near the Expansion Facilities. Because the LNG loading berth platform will increase habitat diversity in

the Mississippi River, the platform may contribute to a long-term beneficial impact on fisheries resources present in the Mississippi River. While artificial nighttime lighting can create undesirable effects on aquatic resources during Project operations, the Expansion Facilities lighting will be consistent with similar industrial lighting at facilities located along the Mississippi River, including the Authorized Facilities, and will implement mitigation measures in its Project-specific Expansion Facilities Lighting Plan. Therefore, the effect on aquatic resources is expected to be negligible because aquatic species in the area are accustomed to lighting from the existing nearby operating industrial facilities.

As described in resource report 3, underwater noise levels generated by pile driving can affect aquatic species. Potential noise impacts from construction activities could contribute to a short-term effect on aquatic wildlife; however, impacts from noise on marine species due to the Project are not anticipated to be significant, and the potential for vessel strikes due to increased vessel traffic are unlikely where established, well-traveled, deepwater shipping lanes are used. Additionally, pile driving will not impede wildlife movement along the river long-term.

As shown in table 1.11-2, multiple projects occurring along the Mississippi River, including the NOLA Terminal and the potential relocation of Port Ship Service, Inc. and Belle Chasse Marine – Davant Launch marine-focused businesses, will require in-water work such as pile driving. However, cumulative impacts associated with construction and operation of the marine berth on fisheries and aquatic resources are expected to be minimal to nonexistent due to the distance between the sites. Construction of the Authorized Facilities' marine berths has been completed; therefore, no cumulative impacts on fisheries or aquatic resources will occur.

As shown in table 1.11-2, additional projects have the potential to cumulatively impact biological resources. These projects include the Mississippi River Ship Channel Dredging project, which involves in-water work with potential for benthic habitat disturbance and alteration to aquatic communities; however, this work is occurring over 20 miles upstream of the Project. The Plaquemines Dirt & Clay Borrow Pit and Woodland Borrow Pit North and South involve land disturbance and excavation, which can lead to habitat loss; however, these sites are already established and operational. The Medium Diversion at Myrtle Grove will alter salinity regimes and sediment dynamics, thereby modifying aquatic habitats.

Construction and operation at the Expansion Facilities will affect wildlife resources and habitat primarily because of vegetation clearing and permanent displacement of species at permanent facility locations. However, wildlife will have the opportunity to leave and inhabit nearby, similar habitats. Aside from the immediately adjacent Plaquemines LNG Terminal and the Cloud Connector Project and Cabri Pipeline (which will both tie into the Authorized Facilities), no other projects are geographically nearby that would inhibit wildlife from leaving the area to nearby, similar habitats that are not already developed.

The Project and any projects listed in table 1.11-2 that involve a federal action and have the potential to affect a federally listed threatened or endangered species would be required to comply with Section 7 of the Endangered Species Act, which requires all federal agencies to use their authorities to conserve endangered and threatened species in consultation with the U.S. Fish and Wildlife Service ("FWS") Pursuant to the regulatory requirement to consult with the FWS regarding project impacts on protected species and habitats, the FWS found that the Project is not likely to adversely affect the federally listed species; therefore, it is unlikely that the Project, in combination with the impacts from other projects, would contribute to a significant cumulative effect on threatened and endangered species.

1.11.2.4 Vegetation

Impacts to vegetation will be permanent. The Applicants are evaluating the anticipated permanent conversion and loss impacts associated with the Project and will coordinate with the LDCE and USACE with input from state and federal stakeholder to adequately mitigate impacts. Although other projects within the vicinity, including the potential relocation of Port Ship Service, Inc. and Belle Chasse Marine-Davant Launch marine-focused businesses, will involve vegetation removal for development, there are not expected to be significant cumulative effects on vegetation.

1.11.2.5 Cultural Resources

Cumulative impacts on cultural resources would only occur if other past, present, or reasonably foreseeable actions affect the same historic properties as the Project. The Area of Potential Effect for direct impacts on historic properties is limited to areas where ground or offshore disturbance will or could take place, which includes the Expansion Facilities. The Project's indirect Area of Potential Effect includes the area of direct effects plus the surrounding areas within view of the new construction, identified as a 1.0-mile-wide buffer from the Expansion Facilities' boundary.

Where direct impacts on significant cultural resources are unavoidable, mitigation will occur before construction (e.g., recovery of data and curation of materials). Projects requiring federal actions, like the Project and other projects listed in table 1.11-2, are required to comply with Section 106 of the National Historic Preservation Act, which requires federal agencies to identify, assess, and mitigate adverse effects, including cumulative effects, on historic properties within the Area of Potential Effect. The Applicants have completed background research on past surveys that have identified sensitive cultural resources and historic properties that could be affected by the Project and have developed a plan to address unanticipated discoveries of cultural resources and human remains during construction. Other federal projects would implement similar plans and measures. For these reasons, cumulative impacts on cultural resources, if any, would not be significant.

1.11.2.6 Socioeconomics

As described in Resource Report 5, the Project study area includes Plaquemines Parish, the location of the Project, as well as the adjacent parishes of Jefferson, Orleans, and St. Bernard in Louisiana. For the purposes of this evaluation, there are five resources that could be potentially affected by cumulative impacts due to competition associated with the presence of the construction workforce:

- Employment/Workforce: The analysis considered how the listed projects could affect the availability of a local workforce and the impact the construction and operation of the projects may have on local unemployment.
- Housing: The analysis considered the impact on available housing from the temporary construction workers and permanent workers.
- Economy and Tax Revenues: The analysis considered the impact of the listed projects on the economy and tax revenues.

- Public Services: The analysis considered the impact of the listed projects on public services offered, specifically, water/sewer, electric, public safety, and health care services.
- Transportation: The analysis considered the impacts of the listed projects on roads and marine transportation corridors.

The greatest level of impact on socioeconomic resources that could potentially be affected by cumulative impacts due to competition associated with the presence of the Project construction workforce will occur during the Project construction phase when transient workers reside in the study area and will temporarily affect housing, road transportation, and public services. As the collective construction phase of the projects listed in table 1.11-2 subsides and the projects become operational, the cumulative economic effects in the study area will be positive. Employment will be the largest benefit of the Project, and the study area will see an increase in the availability of jobs, many of which will pay higher wages than many jobs in the study area. Additionally, investment in the study area by way of real property will result in long-term increase in property tax revenue, which can be used to improve local education and public services.

Employment/Workforce

The cumulative impacts on employment and the workforce will create short-term and long-term effects that would derive from a demand for employment in the study area, particularly in the New Orleans-Metairie-Kenner Metropolitan Statistical Area, which is the largest in the state. The short-term effects will include the need for temporary construction workers to build the Expansion Facilities, as well as the workers needed for other projects considered in the cumulative analysis. Long-term employment impacts would derive from permanent jobs created within this area. The short-term and the long-term impacts will be beneficial and may counteract the population decline that has been occurring in portions of the study area in recent years. The increase in jobs will help the local parishes by providing prospective and local populations with the ability to work and live in the parishes.

Housing

The anticipated increase in temporary and permanent workers will have an impact on the local housing inventory. Short-term cumulative impacts on housing from the increased workforce could include higher occupancy and increased room rates for hotels and motels, and less availability at recreational vehicle parks, longer commutes for workers living outside the study area, and higher rental costs associated with the increased demand for accommodation. Long-term cumulative impacts will be significantly diminished when compared to the short-term effects. Few workers will become permanent residents in the area and, therefore, these additional residents will be easily accommodated within the housing inventory available in the study area.

Economy and Tax Revenues

In Louisiana, the energy sector (which includes oil, gas, and LNG) accounts for roughly 25 percent of Louisiana's gross domestic product and approximately 15 percent of statewide employment, with total earnings reaching $25.5 billion (Louisiana Mid-Continent Oil and Gas Association, 2025). Plaquemines Parish ranks second in oil production within the state and 22nd in gas production (Shale XP, 2024). The global COVID-19 pandemic paused economic growth, and, as of 2024, Louisiana had yet to recover to pre-pandemic employment numbers. Employment in the New Orleans-Metairie area remains four percent less than its pre-pandemic employment (Louisiana Illuminator, 2024).

Although the influx of construction workers may cause a temporary burden on public services and temporary housing supply in accumulation with other nearby projects, the socioeconomic benefits of jobs and increased revenues will compensate for adverse effects. The investment in construction, startup costs, and subsequent annual operating expenditures will inject substantial additional income into the regional economy, including economic benefits stemming from purchases of construction materials, construction contracts, and local spending by workers.

Beneficial short-term and long-term cumulative impacts are likely to occur within the local economy and tax revenues. These positive impacts include the billions of dollars proposed for investment in the study area over a short amount of time. This investment will lead to economic benefits to the study area and will have a positive effect on adjacent population areas. Long-term and short-term benefits will also include decreased unemployment, population increase in the study area seeking population recovery, and higher tax revenues on a state and local level.

Public Services

The Project will not affect the capability of law enforcement or fire departments to provide consistent levels of service in the study area. Short-term construction impacts may result in increased demand for emergency medical services; however, medical services will typically expand and meet the needs of permanent population growth.

The nearest school system to the Expansion Facilities is the Plaquemines Parish school system. Based on the available capacity within the two nearest school systems, the study area appears to have sufficient educational resources to accommodate school-age children accompanying non-local workers bringing families during their temporary relocation. Additional children will have minor to moderate, short-term effects on the public school system during construction, and minor and permanent impacts during operation.

Road Transportation

When considered alongside other major infrastructure and industrial projects in the region, the Walker Road-Peter Road project could contribute cumulatively to increased traffic volumes and changes to the transportation network. While the bridge and roadway extension would enhance long-term access, emergency response routes, and hurricane evacuation options, providing a net benefit to the region, short-term impacts such as construction-related traffic delays would occur. These effects would be compounded if construction schedules overlap.

The project construction may result in temporary impacts on the ground transportation network in the study area through the movement of workers to and from construction areas and the delivery of construction material. The construction workforce will generate new traffic around the Expansion Facilities. The construction of the Authorized Facilities will not overlap with the Expansion Facilities' construction. To reduce potential traffic-related impacts along SH 23, the Applicants have developed a Traffic Impact Study and Traffic Management Plan, which identifies anticipated construction traffic volumes and describes plans for safely and effectively managing the traffic volumes throughout the construction of the Expansion Facilities (see resource report 5, appendices 5B and 5C, respectively). More information about the traffic management approach is included in the Expansion Facilities Traffic Management Plan in appendix 5B of resource report 5.

Marine Transportation

Marine transportation is also expected to contribute to marine traffic along the Mississippi River. Projects including the NOLA Terminal, Louisiana Gateway Container terminal, Gulfstream LNG, Mississippi River Ship Channel Dredging project, relocation of the Port Ship Service, Inc. and Belle Chasse Marine – Davant Launch marine-focused businesses, and the Port Support Boat complex could contribute to vessel density dependent on construction schedules. Developments on the Mississippi River are coordinated by the Louisiana Gateway Port and vessel transits are coordinated by the Cresent River Port Pilots' Association.

To minimize potential impacts on marine transportation associated with the additional berth associated with the Expansion Facilities, the Applicants developed a Waterway Suitability Assessment for the Project (see resource report 13 in the final Application). Any other LNG projects on the Mississippi River would also be required to develop a similar Waterway Suitability Assessment to reduce potential impacts on marine transportation, thus reducing the potential for cumulative impacts.

1.11.2.7 Soil and Geological Resources

The geographic area considered for cumulative impacts related to soils and geology generally consists of projects that overlap with the Project's construction footprint. These projects include the Plaquemines LNG Terminal which has overlapping workspace with the Project, the Cloud Connector Pipeline which will tie into the Plaquemines LNG Terminal, and the Alliance Booster Station's associated water line which crosses under the Plaquemines LNG Terminal and Expansion Facilities property as it parallels adjacent to SH 23. The Plaquemines LNG Terminal has completed grading and will not have any additional impacts to soil and geological resources. The Cloud Connector Pipeline will complete restoration and revegetation within the associated workspace, thereby making soil impacts minor and temporary.

The rationale for limiting scope of cumulative impact analysis to the construction footprint for these resources is that, through implementation of best management practices outlined in the Plan, the anticipated impacts on soil and geological resources will be localized in nature and should not significantly extend beyond the Project footprint. Blasting will not be required and no impacts to geologically sensitive resources, such as kart terrain, are proposed. Overall, the risk of landslides is low. With implementation of the best management practices outlined in the Plan, any potential cumulative impacts on soils and geological resources are anticipated to be minimal.

1.11.2.8 Land Use, Recreation, and Aesthetics

Direct and indirect impacts on land use from the Expansion Facilities will be minor and impacts on recreation near the Expansion Facilities will be minor and short term, as discussed in resource report 8. While the Expansion Facilities will be constructed within a floodplain, The Applicants will apply for and obtain the necessary permits for this construction. Visual impacts from the Expansion Facilities will be permanent but minor. Construction of the Expansion Facilities will create temporary visual impacts associated with construction activities; however, these changes will be consistent with the existing industrial land use in the area and the adjacent Plaquemines LNG Terminal.

The relocation of the Port Ship Service, Inc. and Belle Chasse Marine - Davant Launch marine-focused businesses will maintain their existing marine-industrial land use function but contribute to a net increase in port-support activities along the Mississippi River during

construction. They may contribute to cumulative visual change along the river corridor but are generally consistent with existing individual characteristics in the area.

The Expansion Facilities will be screened with the storm surge wall that will limit the visual impact on those traveling on nearby roads, and the impact will be relatively minor due to existing industrial facilities surrounding the Expansion Facilities. Because of this wall, the cumulative effect on these developments on aesthetics is not expected to be significant.

1.11.2.9 Air Quality

The Project will result in combustion-related operational emissions associated with the Expansion Facilities, fugitive dust from land clearing, and vehicles traveling to and from the Project. The cumulative impacts of greenhouse and non-greenhouse gas pollutants are discussed in section 9.4 of resource report 9.

Construction Emissions

Air quality impacts associated with the Project construction will generally be temporary and localized. To limit emissions, the Applicants will maintain construction equipment in accordance with manufacturers' recommendations, and engine idling time will be minimized. Additionally, the Applicants will employ construction practices such as water sprays to control fugitive dust emissions during construction. Due to these factors and the intermittent and short-term characteristics of the emissions, construction is not expected to cause or substantially contribute to a violation of applicable ambient air quality standards or degradation of air quality.

Of the projects listed in table 1.11-2, the NOLA Terminal, Plaquemines LNG Terminal, Louisiana Gateway Terminal, Venture Global CCS Plaquemines, Belle Chasse Terminal, and Gulfstream LNG would overlap geographically and temporally, potentially resulting in cumulative air quality impacts during Project construction. Each of these terminals would be required to meet the standards for mobile sources established by the EPA non-road source emissions regulations and LDEQ air quality standards. Each project would also be expected to control fugitive dust emissions during construction. Therefore, construction air emissions are not expected to substantially affect long-term air quality in the region.

Operational Emissions

The air quality impacts associated with the Project's operation will be long-term. Venture Global CCS Plaquemines, LLC's carbon capture and sequestration project will reduce the CO_2 emissions from the Authorized Facilities and the Expansion Facilities and will lower the contribution to regional and cumulative air quality impacts.

1.11.2.10 Noise

Construction and operational noise will be generated from the Project and the projects in the area. The Project is required to perform noise modeling and follow the noise guidelines required by FERC. Cumulative impacts on noise quality are discussed in resource report 9, section 9.4.3.

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