

APPENDIX A

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Table 1.3-3				
Landowner-Requested Route Adjustments				
MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
19.55-19.65	10/26/2016	Wants to propose alternative route on border of property instead of directly through his timber farm	0	Land ownership has changed and current landowner of the affected tract has expressed positive feedback to the current alignment and therefore no changes to the route have been incorporated.
27.31-27.32	10/26/2016	Concern regarding privacy (route proposed to cross through wooded area of property); concerns related to creek on property line - erosion, drainage, flood control	0	Landowner's concerns are noted on the loss of vegetation screening and impacts on the riparian contours. However, by accommodating the landowner's request (re-route on the opposite side of the creek and off his property) this would add two pipeline crossings in a congested area (largely requiring deeper excavations) and shift two hot bends into forested wetland, requiring additional environmental impacts due to increasing the size and construction work space. DWPL highlights the proposed route takes advantage of existing cleared areas for the location of the construction temporary work, minimizing additional tree clearing and forested wetland impacts to the greatest extent possible.
29	10/26/2016	Owns family farm corporation; supports project, but concerned about small parcel along the route	0	Comments were generally positive. Landowner's concern was if pipeline was routed on one of his properties. It is not routed on any of his properties.
32.4	10/25/2016	Land used for agricultural production and livestock; concern due to previous restoration problems after previous pipeline construction and land use.	2,564 (-331 feet change to overall route length)	Property is near but not on the pipeline ROW. Construction temporary workspace will not be required on this property. Will restore to as-found condition. No long-term impacts are expected.
32.5	10/25/2016	Land used for agricultural production and livestock; concern due to previous restoration problems after previous pipeline construction and land use	Part of route change at MP 32.4	Pipeline re-route is on property. Will restore to as-found condition
42.5	10/25/2016	Need clarification regarding 25 foot buffer between pipeline ROWs; concern regarding "wasting the land" between two pipeline ROWs; request pipeline route to be moved closer to existing pipeline on the property	0	Will work with the landowner to minimize the impact of the construction activities
70.84-71.09	10/27/2016	Proposed line would run right through middle of land, affecting use and splitting 22 acres.	0	The current alignment transverses the property to CS-02 and MS-08. Alternatives were evaluated that attempted to be closer to the property boundaries. The result was that any movement to the south affected a larger area of forested wetland areas. An alignment shift to attempt to prevent bisecting the property results in bisect of the properties to the east. The property will be restored to pre-construction conditions.

Table 1.3-3				
Landowner-Requested Route Adjustments				
MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
75.4	11/06/2017	Driftwood's proposed route bisects their property and existing rights-of-way are available following the boundary of their property or avoiding the property altogether	13,700 (500 or 1,000 feet less than proposed route depending on option)	Alternatives at this location are discussed in section 3.6.2.3. While alternatives we considered would be slightly shorter, construction would be within 50 feet of structures, and therefore do not provide a significant environmental advantage.
76.6	10/27/2016	States that proposed area near another pipeline and waterway further south is hard to access and maintain; requests pipeline crosses at the railroad so landowners can access the area	0	Landowner's concerns are noted. The location of the railways crossing is remote and most likely is not in a location that the railroad commission will allow a special crossing. Access during construction will be along the ROW. Access for the maintenance activities, if required, will be determined at the time of the activity.
76.91-77.29	10/27/2016	States that pipeline is proposed near back of home where there are existing lines; requests that land be taken care of and returned back to condition	0	The Project will restore to original condition.
77.5	10/27/2016	Outlines condition of Boar's Bayou post pipeline construction along with requesting specific restoration and soil segregation process	0	The Project will restore property to original condition. Topsoil will be segregated for use after pipeline installation.
78	10/27/2016	Four existing pipelines on property; planned use for property affected by proposed pipeline; less building space	0	Property will not be affected as there are 3 existing ROWs between the Pipeline and property corner.
78	10/27/2016	Requests pipeline should be constructed as close to existing Kinder Morgan pipeline ROW as possible to avoid altering existing drainage.	0	Project is committed to restoring the land to original contours
79	10/27/2016	Meter Station 13 should be collocated with other aboveground facilities	0	The location of Meter Station 13 is adjacent to an existing road and connects with two existing pipelines. This location also is within cultivated fields. No changes have been implemented in response to this comment.
85	10/27/2016	No existing pipeline on property; route would be cutting into non-affected land; landowner requests pipeline take another route by following existing pipeline; meter station in fields where no meter station currently exists	0	Across street from CS-03 and next door to existing Transco compressor station. Pipeline or CS-03 will not be on the noted property
86.8	10/27/2016	Requesting that ROW be moved closer to the fence south of the proposed route so it does not cut pasture in half; has no issues with pipeline closer to road because of existing gravel	2,929 (+52 feet change to overall route length)	Pipeline re-routed closer to fence as to not to divide land.

Table 1.3-3				
Landowner-Requested Route Adjustments				
MP	Date	Landowner Comment	Length of Reroute and difference to the length of route (feet)	Qualitative Discussion of Impacts and Comment Resolution
93.41-93.48	10/27/2016	States that 4 pipelines already exist on property; proposed pipeline will cause landowner to lose 50 foot of ROW and lose 8 to 12 trees	2,545 (+566 feet change to overall route length)	Pipeline re-routed off property and affected trees.
93.5		Objects to another pipeline crossing the property. Already several lines and additional line will remove mature oak trees.		Pipeline route has been revised to avoid property.

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
Federal					
FERC	Section 3(a) and Section 7(c) – NGA	Kimberly D. Bose, Secretary 888 First Street, NE, Room 1A Washington, DC 20426 (202) 502-8325	March 2017	(January 2019)	Initiated consultation on May 5, 2016
DOE/FE	Section 3 Application – NGA	Amy Sweeney, Division of Natural Gas Regulation, Director 1000 Independence Avenue SW, Room 3E-052 Washington DC 20585 (202) 586-2627	July 2016	FTA Nations: February 28, 2017 (Non-FTA Nations: Q1 2019)	Initiated consultation on May 5, 2016
COE	Section 404	James W. Little, Jr. Regulatory New Orleans District (OD-S) P.O. Box 44487 Baton Rouge, LA 70804-4487 (225) 342-3099	March 31, 2017	(December 2018)	Project coordination meeting held on June 14, 2016; JEM meeting on November 15, 2016; consultations ongoing
	Section 408	India A. Sims Operations New Orleans District P.O. Box 60267 New Orleans, LA 70160 (804) 931-6505	March 31, 2017	Not Applicable, based on agency discussion	
	Section 10 (Rivers and Harbors Act)	James W. Little, Jr. Regulatory New Orleans District (OD-S) P.O. Box 44487 Baton Rouge, LA 70804-4487 (225) 342-3099	March 31, 2017	(December 2018)	
USCG	Letter of Intent and Preliminary Water Suitability Assessment	LT Dimitri Wiener Chief, Inspections Division MSU Lake Charles 127 West Broad Street, Suite 200 Lake Charles, LA 70601-5680 (337) 491-7810	May 10, 2016	June 21, 2016	Complete
	Follow-on Water Suitability Assessment and Letter of Response		January 2017; March 7, 2017	April 25, 2017	Complete
USFWS	Section 7 of Endangered Species Act Consultation	Amy Trahan, T&E Species and Coastal Restoration Biologist 646 Cajundome Blvd. Suite 400, Lafayette, LA 70506 (337) 2913126	June 24, 2016	September 19, 2017	Complete
NOAA Fisheries	Section 7 of Endangered Species Act Consultation	Richard Hartman, Habitat Conservation Division	October 16, 2017	February 14, 2018	Complete

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
U.S. Federal Aviation Administration	Magnuson-Stevens Fishery Management and Conservation Act Essential Fish Habitat Consultation	Military Science Building, Room 266 South Stadium Drive Baton Rouge, LA 70803 (225) 389-0508	August 21, 2018; August 25, 2017; September 13, 2017; September 25, 2017	October 3, 2017	Complete
	Marine Mammal Protection Act Consultation		August 21, 2018; August 25, 2017; September 13, 2017; September 25, 2017	February 14, 2018	Complete
	Notification of Proposed Construction	Kevin L. Solco, Southwest Regional Administrator 10101 Hillwood Parkway Fort Worth TX 76177-1524 (817) 222-5001	May 5 2017; February 6, 2018/, February 23, 2018	June 27, 2017 (39 cases approved); March 7, 2018 (4 cases approved)	Complete
	Possibly Affecting Navigable Air Space		May 2017	June 27, 2017 (39 cases) November 6, 2017	Complete
FEMA	Permit for Floodplain Development	Tony Robinson, Regional Administrator, Region 6 FRC 800 North Loop 288 Denton, TX 76209-3698 (940) 898-5399	N/A	N/A	Initiated correspondence on May 4, 2016; No permit to be obtained from FEMA; directed to coordinate floodplain permitting review with parish floodplain administrator
USDOT	RR 11 and 13 approvals	Stacy Cummings, Interim Executive Director East Building, 1200 New Jersey Avenue, SE Washington, D.C. 20590	March 31, 2017	December 11, 2017 (letter of no objection)	Complete
PHMSA	RR 11 and 13 approvals	M. "Buddy" Secor, Jr. PE, Engineering Supervisor 1200 New Jersey Avenue, SE, E22-209 Washington, DC 20590 (202) 493-0452	March 2017	December 11, 2017 (letter of no objection) December 18, 2018 (letter of determination)	Complete

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
United States Department of Agriculture – Natural Resources Conservation Service	Wetlands Reserve Program easements and Prime Farmland	Dr. Mike Lindsey, Soil Scientist 3737 Government Street Alexandria, LA 71302	October 19, 2016	Received clearance on Prime farmland exemption 1/17/17, WRP easement exemption received May 2, 2017	Complete
State					
LDNR – Coastal Management Division	Coastal Use Permit and Coastal Zone Consistency Permit, Joint permit with COE	Ontario James, Office of Coastal Management P.O. Box 44487 Baton Rouge, LA 70804 (225) 342-7358	March 31, 2017	May 29, 2018	Complete
LDEQ – Air Quality Division	Air Permit for LNG Terminal	Yanfu Zhao, Administrator Air Permits Division P.O. Box 4301 Baton Rouge, LA 70821-4301	March 29, 2017	July 10, 2018	Complete
	Air Permit for CS-01	Baton Rouge, LA 70821-4301	March 29, 2017	October 2, 2017	Complete
	Air Permit for CS-02	(225) 219-3613	(Q1 2019)	(Q4 2019)	Consultations ongoing
	Air Permit for CS-03		(Q4 2019)	(Q2 2021)	Consultations ongoing
Louisiana Department of Health	Sanitary System/Septic Tank/Mechanical Treatment Systems	Office of Public Health	(Q1 2019)	(Q4 2019)	Authorized in conjunction with the LPDES permit
LDEQ – Water Quality Division	Hydrostatic Test Water Discharge General Permit	Scott Guillams Administrator Water Permits Division P.O. Box 4313 Baton Rouge, LA 70821-4313	(Q2 2019)	(Q2 2019)	Notification to Regional Offices concurrent with construction schedule
	Industrial Discharge Permit		(Dec 2019)	(Dec 2020)	Consultations ongoing
	Industrial Stormwater (Operation) Discharge Permit		N/A - Exempt	N/A	
	Water Quality Certification		March 2017	September 7, 2018	
	General Construction Stormwater Permit		N/A - Exempt	N/A	
LDWF and the Louisiana Natural Heritage Program	Threatened and Endangered Species Consultation	Dave Butler, Permits Coordinator P.O. Box 98000 Baton Rouge, LA 70898 (225) 763-3595	June 2016	(December 2018)	Consultations ongoing
	State Natural and Scenic Rivers	Chris Davis, Biologist P.O. Box 98000 Baton Rouge, LA 70898 (225) 765-2642	(Q1 2019)	(Q2 2019)	Consultations ongoing

Table 1.5-1

Permits and Consultations for the Project

Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
Louisiana SHPO	Section 106 Consultation	Phil Boggan, Acting SHPO 1051 North Third Street P.O. Box 44247 Baton Rouge, LA 70804 (225) 342-8200	Submitted Cultural Survey Report (LNG Facility) on June 9, 2016 Submitted Draft Cultural Survey Report (Pipeline) on October 31, 2016 Submitted Final Cultural Survey Report (Pipeline) April 13, 2017 Submitted Addendum Report in March 18 2017	Concurrence received June 29, 2016 Partial concurrence received November 22, 2016 Concurrence on Final report received April 13, 2017 Acceptance of Final received April 24, 2017	
LADOTD	ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Roger Moses P.O. Box 1430 Lake Charles, LA 70602 800-762-1852	(Q1 2019)	(Q4 2019)	Initiated correspondence on May 4, 2016
Parish					
Calcasieu Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement, Building and Construction Permit	Dana Watkins, Permit Coordinator 902 Lakeshore Dr. Lake Charles, LA 70602 (337) 721-3600	(Q4 2018)	(February 2019)	Initiated correspondence
Jefferson Davis Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	P.O. Box 1409 Jennings, LA 70546 (337) 824-4792	(Q4 2018)	(February 2019)	None

Table 1.5-1					
Permits and Consultations for the Project					
Agency	Permit/ Consultation	Point of Contact	Submitted Date (Anticipated)	Approval Date (Anticipated)	Current Consultation Status
Acadia Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Elaine Credeur, Permit Clerk 1029 Capitol Ave Crowley, LA 70526 (337) 788-4999	(Q4 2018)	(February 2019)	None
Evangeline Parish Police Jury	Floodplain permit and zoning changes, letter of no objection. ROW Easement Agreement, Crossing State ROWs, Construction within ROW, Utility Easement	Rachel West, Permit Secretary/ Receptionist 1008 W. LaSalle St. Ville Platte, LA 70586 (337) 363-5651	(Q4 2018)	(February 2019)	None

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
0.9	scaa026	V.B.2.a	ATWS less than 50 feet from waterbody (50'x103')	Roadside ditch with road crossing and house	Approved
1.1	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.2	wcaa010e	VI.B.1.a	Two ATWS in wetland (50'x108' and 75'x310')	Extensive wetland crossing and no ability to relocate out of wetland; road crossing and large waterbody crossing requiring extra spoil storage	Approved
1.3	wcaa010s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.3	wcaa010e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.3	wcaa010e	VI.B.1.a	ATWS in wetland (50'x184')	Extensive wetland crossing and no ability to relocate out of wetland; road crossing requiring extra spoil storage	Approved
1.4	scaa027	V.B.2.a	ATWS less than 50 feet from waterbody (50'x184')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
1.4	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.5	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.5	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.5	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.6	wcaa011s	VI.B.1.a	ATWS in wetland (50'x363')	Extensive wetland crossing and no ability to relocate out of wetland; multiple pipeline crossings requiring extra workspace and extra spoil storage for boring	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
1.6	wcaa011s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.7	wcaa011s	VI.B.1.a	Three ATWS in wetland (0.33 ac, 10'x292', and 50'x558')	Extensive wetland crossing and no ability to relocate out of wetland; multiple points of inflection requiring extra workspace and extra spoil storage; extra space needed for road bore of Hwy 27; meter station construction	Approved
1.7	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.9	scaa029	V.B.2.a	ATWS less than 50 feet from waterbody (50'x558')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
1.9	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
1.9	wcaa011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
2.7	wcaa013e	VI.B.1.a	ATWS in wetland (50'x150')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
2.8	wcaa013e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
2.8	scaa031	V.B.2.a	ATWS less than 50 feet from waterbody (50'x157')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
2.9	wcaa012e	VI.B.1.a	ATWS in wetland (50'x157')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
5.0	NWI_106	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	No survey was available to NWI data was used; wetland appears to be mapped in the wrong location	No variance required here; incorrect wetland location	Approved
5.8	wcae014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (50'x122', 50'x269', and 50'x150')	Extensive wetland crossing with multiple road and waterbody crossings requiring extra spoil storage	Approved
6.1	wcae015f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
6.1	wcae015e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x1240')	Workspace for HDD pullback string needed	Approved
6.2	wcae015s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extensive wetland crossing with road crossing and waterbody crossing requiring extra spoil storage	Approved
7.1	scae021	V.B.2.a	ATWS less than 50 feet from waterbody (0.71 ac)	Roadside ditch with road crossing at HDD entry	Approved
7.1	scae021	V.B.2.a	ATWS less than 50 feet from waterbody (0.56 ac)	Roadside ditch with road crossing at HDD entry	Approved
7.8	scae016	V.B.2.a	ATWS less than 50 feet from waterbody (50'x316')	Roadside ditch with road crossing and major waterbody crossing; nowhere else to store spoil	Approved
8.4	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
8.4	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
8.5	wcae010f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (20'x300' and 130'x300')	HDD exit workspace required but unable to avoid wetland due to presence of structures and other wetlands	Approved
9.0	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.1	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.1	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetlands (0.89 ac and 50'x500')	Extra workspace associated with HDD entry, multiple points of inflection, and large amounts of spoil in extensive wetland that cannot be avoided	Approved
9.3	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
9.7	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.1	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.1	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x813' and 1.08 ac)	HDD entry location and point of inflection that require large workspace and spoil storage in an extensive wetland	Approved
10.1	wcag007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.2	wcaa016e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.3	wcaa016f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.5	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
10.6	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (130'x300' and 20'x300')	HDD exit workspace required but located in extensive wetland with no ability to relocate outside wetland	Approved
10.7	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.1	wcac001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.2	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (130'x300')	Extensive wetland requiring extra workspace for mats for wetland crossings and turnaround for equipment in extensive wetland	Approved
11.5	wcac001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.7	scac007	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Roadside ditch with road crossing in extensive wetland; highway crossing with extra workspace needed for bore	Approved
11.7	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x959')	Extensive wetland with multiple points of inflection requiring extra spoil storage; no ability to relocate out of wetland	Approved
11.9	wcac005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
11.9	wcac005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x353')	Extra workspace needed for road crossing and waterbody crossings in extensive wetland	Approved
12.1	scaa035	V.B.2.a	ATWS less than 50 feet from waterbody	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
12.1	scaa034	V.B.2.a	ATWS less than 50 feet from waterbody	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
12.1	wcaa014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.1	wcaa014e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.2	wcaa014e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (0.53 ac)	Extra workspace needed for spoil and equipment storage for road crossing in extensive wetland	Approved
12.2	wcaa014f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x318')	Extra workspace needed for spoil storage and construction equipment at multiple points of inflection in extensive wetland	Approved
12.2	wcaa015f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x682' and 150'x200')	Extra workspace needed for spoil and equipment storage for multiple road and waterbody crossings in extensive wetland	Approved
12.5	wcac004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
12.5	scaa037	V.B.2.a	ATWS less than 50 feet from (150'x200')	Extra workspace needed for spoil and equipment storage for roadside ditch with road crossing in extensive wetland	Approved
12.5	scac006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Roadside ditch with road crossing and residential land with no relocation option	Approved
12.6	wcac004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x331' and 200'x202')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.0	NWI_05	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	ATWS in wetland (200'x198')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.0	NWI_04	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.1	NWI_04	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.2	scac003	V.B.2.a	ATWS less than 50 feet from waterbody (50'x209')	Multiple pipeline crossings with limited space for spoil storage	Approved
13.2	NHD_16	V.B.2.a	ATWS less than 50 feet from waterbody	Multiple pipeline crossings with limited space for spoil storage	Approved
13.2	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.2	wcac002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.4	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.5	wcac002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.6	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.6	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
13.7	wcac002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (1.13 ac)	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing	Approved
13.8	wcaa008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (0.42 ac, 1.11 ac, and 50'x150')	Extra space needed for large drainage canal crossing and storage of spoil and equipment for crossing; truck turnaround	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Five ATWS in wetland (50'x154', 50'x396', 50'x168', 50'x243', and 50'x386')	Extra space needed for waterbody crossings, foreign pipeline crossings, and points of inflection in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (1.52 ac and 90'x200')	HDD entry location and point of inflection that require large workspace and spoil storage in an extensive wetland	Approved
15.2	wcaa009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.2	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.4	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.5	wcaa001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
15.9	wcae001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.0	wcae001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.7	wcae001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
16.8	wcae002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extensive wetland with waterbody crossings and road crossings requiring extra spoil and equipment storage	Approved
16.9	scae006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Extensive wetland with waterbody crossing requiring extra workspace for spoil and equipment storage for crossing	Approved
17.0	wcae003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x272')	Extensive wetland with extra spoil storage needs due to numerous points of inflection and road crossing	Approved
17.2	wcae003e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
17.2	wcae003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x162' and 50'x162')	Extensive wetland with waterbody crossing requiring extra workspace for spoil and equipment storage for crossing	Approved
17.4	wcaa002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
17.4	wcaa002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (200'x200', 50'x79', and 90'x198')	Workspace needed for HDD exit in extensive wetland	Approved
17.7	NWI_06	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
17.9	wcae004f	VI.B.1.a	Two ATWS in wetland (90'x200' and 200'x200')	Workspace needed for HDD entry in extensive wetland	Approved
		VI.B.1.a	ATWS in wetland (50'x352')	Foreign pipeline crossing in extensive wetland and extra spoil storage needed for boring pipeline	Approved
		VI.B.1.a	Two ATWS in wetland (50'x151' and 50'x151')	Extra workspace needed for spoil storage at waterbody crossing in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x151')	Extra workspace needed for spoil storage at waterbody crossing in extensive wetland	Approved
		VI.B.1.a	ATWS in wetland (50'x181')	Extra spoil and equipment storage for road crossing in extensive wetland	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.8	wcae011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (1.33 ac)	Extra workspace needed partially in wetland for multiple road crossings and points of inflection	Approved
18.8	wcae011e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (0.28 ac)	Extra workspace needed n wetland for multiple road crossings and points of inflection	Approved
18.8	wcae011f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x159')	Extra workspace needed in extensive wetland for road crossing extra spoil and equipment storage	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
18.9	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x198' and 50'x182')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.1	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.2	wcae005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.2	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
19.5	wcae005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x159' and 50'x268')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.7	wcae006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x154' and 50'x153')	Extra workspace needed in extensive wetland for waterbody crossing extra spoil and equipment storage	Approved
19.9	wcae007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
19.9	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.1	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.1	wcae007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.2	wcae007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (150'x439' and 150'x385')	Equipment and mat storage area in extensive wetland	Approved
20.3	wcae008e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.3	wcae008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.4	wcae008e	VI.B.1.a	ATWS in wetland (150'x296')	Equipment and mat storage area in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (0.52 ac and 0.52 ac)	Extra workspace needed for spoil and equipment storage at railroad and foreign pipeline crossings in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
20.6	wcae008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.6	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.7	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.8	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
20.8	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.3	wcae009e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x275')	Extra workspace needed for spoil and equipment storage in extensive wetland due to multiple points of inflection	Approved
21.5	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.5	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.6	scaa015	V.B.2.a	ATWS less than 50 feet from waterbody (0.21 ac)	Roadside ditch with road crossing in extensive wetlands	Approved
21.6	scaa014	V.B.2.a	ATWS less than 50 feet from waterbody (50'x276')	Roadside ditch with road crossing in extensive wetland	Approved
21.6	wcae009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
21.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.8	scaa017	V.B.2.a	ATWS less than 50 feet from waterbody (50'x180')	Presence of multiple streams and wetlands makes siting more than 50feet impossible	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
21.8	wcaa003f	VI.B.1.a	ATWS in wetland (50'x309')	Extra workspace needed in extensive wetland for waterbody crossing and points of inflection extra spoil and equipment storage	Approved
		VI.B.1.a	Four ATWS in wetland	Extra workspace needed in extensive wetland for extra spoil and equipment storage	Approved
22.5	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
22.6	NWI_07	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
22.8	wcaa003f	VI.B.1.a	ATWS in wetland (50'x477')	Extra workspace needed in extensive wetland for waterbody crossing and points of inflection extra spoil and equipment storage	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.2	wcaa003s	VI.B.1.a	ATWS in wetland (50'x211')	Extra workspace needed in extensive wetland for points of inflection extra spoil and equipment storage	Approved
23.2	wcaa003s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.2	wcaa003s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.3	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.5	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	Two ATWS in wetland (75'x300' and 0.49 ac)	HDD entry workspace needed in extensive wetland	Approved
23.6	wcaa003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.7	wcaa005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.8	scaa013	V.B.2.a	ATWS less than 50 feet from waterbody (50'x50')	Narrow space needed to obtain hydrostatic test water. Limited disturbance.	Approved
23.8	wcag006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.8	wcag006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
23.9	NWI_11	VI.B.1.a	ATWS in wetland	Hydrostatic test water access for HDD in extensive wetland. Width will be limited to vehicle width.	Approved
24.0	NWI_11	VI.B.1.a	ATWS in wetland	Hydrostatic test water access for HDD in extensive wetland. Width will be limited to vehicle width.	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
24.5	NWI_12	VI.B.1.a	ATWS in wetland (50'x3037')	HDD pullback string must cross wetland	Approved
24.8	NHD_109	V.B.2.a	ATWS less than 50 feet from waterbody	HDD pullback string must cross waterbody	Approved
25.5	NWI_13	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
25.5	NWI_14	VI.B.1.a	ATWS in wetland (50'x173')	Extra spoil and equipment storage for road crossing in extensive wetland	Approved
25.7	wcag004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
25.8	NWI_15	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
25.9	NWI_16	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
26.2	wcag002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
26.3	wcag002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x943')	Extra spoil and equipment storage in extensive wetland needed for multiple points of inflection and foreign pipeline crossings	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
27.4	wcaf007s	VI.B.1.a	ATWS less than 50 feet from wetland (0.78 ac)	Extra workspace needed adjacent to ROW for multiple points of inflection and wetland crossing spoil storage	Approved
		VI.B.1.a	ATWS in wetland (0.42 ac)	Extra workspace needed in wetland for multiple points of inflection and wetland crossing spoil storage	Approved
27.6	wcaf007s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
27.6	scaf020	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Roadside ditch with road crossing. Residential area with limited workspace.	Approved
27.6	scaf019	V.B.2.a	ATWS less than 50 feet from waterbody (50'x142')	Roadside ditch with road crossing. Residential area with limited workspace.	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x152')	Extra spoil and equipment storage needed for waterbody crossings in extensive wetland	Approved
27.7	wcaf004f	VI.B.1.a	Two ATWS in wetland (50'x353' and 50'x155')	Extra spoil and equipment storage needed for waterbody crossing and foreign pipeline bore in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x150' and 50'x150')	Extra spoil and equipment storage needed for waterbody crossing in extensive wetland	Approved
27.7	scaf018	V.B.2.a	ATWS less than 50 feet from waterbody (50'x353')	Waterbody crossing in extensive wetland	Approved
27.8	scaf014	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Waterbody crossing in extensive wetland	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
28.3	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x165')	Extra spoil and equipment storage needed for road crossing in extensive wetland	Approved
		VI.B.1.a	Two ATWS in wetland (50'x168' and 50'x168')	Extra spoil and equipment storage needed for waterbody crossing in extensive wetland	Approved
28.5	scaf012	V.B.2.a	Two ATWS less than 50 feet from waterbody(50'x168' and 50'x168')	Waterbody crossing in extensive wetland	Approved
28.9	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
28.9	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x265')	Extra spoil and equipment storage needed for foreign pipeline crossing in wetland	Approved
29.0	wcaf004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x289')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing and point of inflection	Approved
29.1	wcaf003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x223')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
29.2	wcaf002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to road crossing	Approved
29.2	scaf011	V.B.2.a	ATWS less than 50 feet from waterbody (50'x150')	Roadside ditch with road crossing in extensive wetland	Approved
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
29.3	wcaf002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x519')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to foreign pipeline crossing and points of inflection	Approved
29.3	wcaf002f	VI.B.1.a	Two ATWS in wetland (50'x159' and 50'x159')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
		VI.B.1.a	Three ATWS in wetland (50'x153', 50'x329', and 50'x155')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to two waterbody crossings	Approved
29.6	scaf007	V.B.2.a	ATWS less than 50 feet from waterbody (50'x159' and 50'x159')	Ditch crossing in extensive wetland	Approved
30.2	NWI_107	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
30.2	scaf006	V.B.2.a	ATWS less than 50 feet from waterbody (50'x153' and 50'x329')	Waterbody crossing in extensive wetland	Approved
30.3	scaf005	V.B.2.a	ATWS less than 50 feet from waterbody (50'x329' and 50'x155')	Waterbody crossing in extensive wetland	Approved
30.8	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
30.8	scaf004	V.B.2.a	ATWS less than 50 feet from waterbody (50'x155')	Pipeline crossing in residential area with limited workspace	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
30.9	wcaf001f	VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace needed in wetland for extra spoil and equipment storage due to foreign pipeline crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
30.9	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x151' and 50'x330')	Extra workspace needed in wetland for extra spoil and equipment storage due to waterbody crossing and point of inflection	Approved
31.1	wcaf001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x222')	Extra workspace needed in wetland for extra spoil and equipment storage due to point of inflection	Approved
31.2	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150')	Extra workspace needed in wetland for extra spoil and equipment storage due highway crossing	Approved
31.6	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
31.9	wcab002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x150' and 50'x150')	Extra workspace needed in wetland for extra spoil and equipment storage due to waterbody crossing	Approved
32.1	wcab002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
32.9	wcab004e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
32.9	wcab004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x153' and 50'x155')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
33.8	wcab004f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x368')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to foreign pipeline crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
34.1	NWI_17	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
36.7	NWI_18	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
37.3	NWI_19	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x66')	Extra workspace needed in extensive wetland for extra spoil and equipment storage due to waterbody crossing	Approved
37.4	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved ^a
37.4	NWI_20	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved ^a
		VI.B.1.a	ATWS in wetland (60'x200')	Extra workspace in extensive wetland needed for HDD exit workspace equipment and spoil storage	Not Approved ^a
37.4	NWI_20	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved ^a
		VI.B.1.a	ATWS in wetland (60'x200')	Extra workspace in extensive wetland needed for HDD exit workspace equipment and spoil storage	Not Approved ^a
37.6	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Not Approved ^a
		VI.B.1.a	ATWS in wetland (10'x779')	Limited ATWS needed in extensive wetland for withdrawal of hydrostatic test water. Limited to width of vehicle.	Approved ^a
38.0	wjeb009f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
38.1	wjeb009f	VI.B.1.a	Two ATWS in wetland (50'x300' and 50'x530')	Extra workspace in extensive wetland needed for HDD entry workspace equipment and spoil storage	Approved
		VI.B.1.a	ATWS partially in wetland (50'x859')	Extra workspace in extensive wetland needed spoil and equipment storage due to foreign pipeline crossing and point of inflection	Approved
		VI.B.1.a	ATWS partially in wetland (50'x350')	Extra workspace in extensive wetland needed for spoil and equipment storage due to foreign pipeline crossing	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
38.3	NWI_21	VI.B.1.a	ATWS partially in wetland (50'x262')	Extra workspace in extensive wetland needed spoil and equipment storage due to waterbody crossings	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS less than 50' from wetland (50'x201')	Extra workspace needed close to extensive wetland for spoil and equipment storage due to wetland crossing and points of inflection	Approved
38.8	NWI_21	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
38.9	NWI_21	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
39.7	wjeb009s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.1	NWI_22	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.3	wjeb008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.6	sjeb027	V.B.2.a	ATWS less than 50 feet from waterbody (50'x160')	Waterbody crossing in extensive wetland	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.6	wjeb008f	VI.B.1.a	Four ATWS in wetland (50'x160', 50'x459', 50'x367', and 50'x158')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple waterbody crossings	Approved
		VI.B.1.a	ATWS in wetland (50'x347')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
40.6	NWI_108	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
40.7	sjeb028	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved
40.8	sjeb025	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
40.8	sjeb026	V.B.2.a	ATWS less than 50 feet from waterbody (50'x367')	Waterbody crossing in extensive wetland	Approved
40.9	Wjeb008	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x375')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
41.4	wjeb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
41.4	wjeb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
41.9	wjeb006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x318' and 50'x178')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
43.0	wjeb005f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x179')	Extra workspace in wetland needed for spoil and equipment storage due to highway crossing bore	Approved
43.1	sjeb020	V.B.2.a	ATWS less than 50 feet from waterbody	Roadside ditch with road crossing in extensive wetland	Approved
43.1	sjef001	V.B.2.a	ATWS less than 50 feet from waterbody	Roadside ditch with road crossing in extensive wetland	Approved
43.1	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x175')	Extra workspace in wetland needed for spoil and equipment storage due to highway crossing bore	Approved
43.2	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
43.3	wjef001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x177')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
43.7	wjef002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Three ATWS in wetland (50'x265', 50'x221', and 50'x279')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing and point of inflection	Approved
45.0	wjez005s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
45.8	wjez006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x188')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
45.8	wjez006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
46.8	wjez008f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
46.9	wjez008e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.0	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Five ATWS in wetland (50'x301', 50'x75', 50'x288', 50'x217', and 50'x183')	Extra workspace in extensive wetland needed for spoil and equipment storage due to multiple waterbody crossings	Approved
47.1	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.1	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
47.2	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.3	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (200'x200')	Extra workspace in extensive wetland needed for storage of mats and equipment and for truck turnaround	Approved
47.4	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.4	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.7	wjey007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
47.8	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.0	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.0	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x206')	Extra workspace in extensive wetland needed for spoil and equipment storage due to point of inflection	Approved
48.1	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
48.2	wjey007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

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Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
48.7	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.0	wjey006f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.1	wjey006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.4	wjey003e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
49.8	wjey001s	VI.B.1.a	Two ATWS in wetland (50'x154' and 50'x160')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossings	Approved
49.9	wjey001s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
51.6	wjez002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
52.0	wjez003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
52.0	wjez004s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
53.2	wjeh007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
53.2	wjeh006e	VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace in extensive wetland needed for spoil and equipment storage due to canal crossing	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
53.2	wjeh006f	VI.B.1.a	ATWS in wetland (50'x153')	Extra workspace in extensive wetland needed for spoil and equipment storage due to canal crossing	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
54.5	wjeb002e	VI.B.1.a	ATWS in wetland (50'x152')	Extra workspace in extensive wetland needed for spoil and equipment storage due to highway crossing	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
54.5	sjeb008	V.B.2.a	ATWS less than 50 feet from waterbody (50'x154')	Roadside ditch with road crossing in extensive wetland	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
55.1	wjeb002f	VI.B.1.a	ATWS in wetland (50'x155')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
		VI.B.1.a	ATWS in wetland (90'x300')	Extra workspace in extensive wetland needed for equipment staging for HDD exit	Approved
55.8	wjeb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
55.8	wjeb002f	VI.B.1.a	ATWS in wetland (20'x400')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
		VI.B.1.a	ATWS in wetland (130'x400')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
56.3	wjeb001e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
56.3	wjeb001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
64.7	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
64.7	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
64.8	wjeb003f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
66.6	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.2	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (25'x300' and 70'x300')	Extra workspace in extensive wetland needed for equipment staging for HDD entry	Approved
67.3	NWI_27	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.4	NWI_26	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.4	NWI_27	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.5	wacb007e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.5	wacb007f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
67.7	wacb004s	VI.B.1.a	Two ATWS less than 50 feet from wetland (25'x300' and 0.47 ac)	Extra workspace in extensive wetland needed for equipment staging for HDD exit	Approved
67.9	wacb006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
68.0	wacb005s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb005e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.0	wacb006e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.1	wacb006s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x138')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
68.3	wacb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.3	wacb002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
68.3	wacb002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x139' and 50'x118')	Extra workspace in extensive wetland needed for spoil and equipment storage due to waterbody crossing	Approved
68.5	sacb009	V.B.2.a	ATWS less than 50 feet from waterbody (50'x139' and 50'x118')	Waterbody crossing in extensive wetland	Approved
68.6	wacb002s	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
70.0	wacb001f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
70.6	NWI_28	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS in wetland (50'x181')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
71.6	sacb015	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 02 site	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
71.6	sacb016	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 02 site	Approved
71.9	wacc002f	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	Two ATWS in wetland (50'x335' and 50'x170')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing and points of inflection	Approved
72.1	wacc002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
72.2	wacc002e	II.A.2	ROW width in wetlands greater than 75 feet	48-inch pipeline construction will require 110 feet in wetlands due to large ditch, excessive amount of spoil, and large equipment needs	Approved
		VI.B.1.a	ATWS partially in wetland (50'x526')	Extra workspace in wetland needed for spoil and equipment storage due to multiple points of inflection	Approved
74.2	waca001e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands of 573 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		VI.B.1.a	ATWS in wetland (50'x149' and 50'x123')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing and road crossing	Approved
75.1	NWI_29	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
75.1	wevc001f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
75.9	wevc004f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
76.1	wevc003f	VI.B.1.a	Two ATWS in wetland (50'x153' and 50'x145')	Extra workspace in wetland needed for spoil and equipment storage due to waterbody crossing	Approved
		VI.B.1.a	ATWS in wetland (0.86 ac)	Extra workspace in wetland needed for spoil and equipment storage due to large railroad crossing	Approved
76.6	NWI_30	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
		VI.B.1.a	ATWS in wetland (200'x200')	Extra workspace needed for equipment staging because equipment may not pass over railroad tracks and will need to be staged to move around	Approved
		VI.B.1.a	ATWS less than 50' from wetland (50'x389')	Extra workspace needed for spoil storage due to multiple points of inflection	Approved
76.9	NWI_30	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
80.5	weva009f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.3	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
		VI.B.1.a	Two ATWS in wetland (50'x164' and 50'x162')	Extra workspace in wetland needed for spoil and equipment storage due to road crossing	Approved
82.4	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013f	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
82.4	wevb013e	II.A.2	ROW width in wetlands greater than 75 feet	42-inch pipeline construction in wetlands exceeding 500 linear feet will require 110 feet to accommodate spoil and equipment passing.	Approved
84.5	sevb050	V.B.2.a	ATWS less than 50 feet from waterbody	Within Compressor Station 03 site	Approved
87.2	wevb004e	VI.B.1.a	ATWS in wetland (50'x111')	Extra workspace in wetland needed for spoil and equipment storage due to road crossing	Approved
87.9	wevb006e	VI.B.1.a	ATWS in wetland (2.33 ac)	Extra workspace in wetland needed for equipment siting for HDD entry	Approved
91.3	weva007e	VI.B.1.a	ATWS less than 50 feet from wetland (50'x171')	Extra workspace needed for soil and equipment storage for road crossing	Approved
92.8	weva003e	VI.B.1.a	ATWS less than 50 feet from wetland (50'x217')	Extra workspace needed for soil and equipment storage for road crossing	Approved

Table 2.2-2

Site Specific Justifications

Facility / Milepost	Feature ID	Driftwood Procedures Section Reference	Deviation Description	Justification for Deviation / Alternative Measures	FERC Staff Conclusion
93.5	weva001e	VI.B.1.a	Two ATWS in wetland (50'x45' and 50'x200')	Extra workspace needed for soil and equipment storage residential construction limitations nearby	Approved
93.7	weva001e	VI.B.1.a	Two ATWS in wetland (5'x244' and 70'x169')	Extra workspace needed for soil and equipment storage for waterbody crossing	Approved
^a See our recommendation in section 4.4.2.2.					

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
Temporary Access Roads									
1.2	TAR-1.0	Calcasieu	Gravel	20	268.8	gravel repair and maintain as needed	0.17	0.0	Construction Access
2.3	TAR-1.1	Calcasieu	Gravel	20	494.7	gravel repair and maintain as needed	0.24	0.0	Construction Access at Borrow Pit
6.8	TAR-1.2	Calcasieu	Gravel	20	341.7	gravel repair and maintain as needed	0.17	0.0	Construction Access for Bore
7.6	TAR-2.0	Calcasieu	Greenfield	20	234.8	cut/fill, drainage, gravel or select, mats as needed, maintain	2.20	0.0	Construction Access around Pond
8.1	TAR-2.1	Calcasieu	Greenfield	20	1554.3	gravel repair and maintain as needed (may widen)	1.61	0.0	Construction Access around Pond
8.7	TAR-3.0	Calcasieu	Asphalt/gravel	20	2780.3	gravel/asphalt repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	0.35	0.0	Construction Access
8.8	TAR-4.0	Calcasieu	Dirt	20	456.6	grade, drainage, gravel or select or mats as required, maintain	0.20	0.0	Construction Access
9.7	TAR-5.1	Calcasieu	Dirt	20	650.3	grade, drainage, gravel or select or mats as required, maintain	0.37	0.0	Construction Access
10.1	TAR-5.0	Calcasieu	Dirt	20	5048.6	grade, drainage, gravel or select or mats as required, maintain	0.26	0.0	Construction Access
11.4	TAR-6.0	Calcasieu	Greenfield	20	544.9	grade, drainage, gravel or select or mats as required, maintain	0.14	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
13.1	TAR-7.0	Calcasieu	Gravel/dirt	20	497.7	grade, drainage, gravel or select or mats as required, maintain	3.40	0.0	Construction Access
13.7	TAR-8.0	Calcasieu	Gravel/dirt	20	2320.4	gravel repair and maintain as needed	0.93	0.0	Construction Access
14.0	TAR-9.0	Calcasieu	Greenfield	20	4561.8	cut/fill, drainage, gravel or select, mats as needed, maintain	1.46	0.0	Construction Access
15.0	TAR-10.0	Calcasieu	Dirt	20	4656.9	cut/fill, drainage, gravel or select, mats as needed, maintain	0.49	0.0	Construction Access
15.1	TAR-10.1	Calcasieu	Dirt	20	3516.5	gravel repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	1.00	0.0	Construction Access
17.4	TAR-11.0	Calcasieu	Gravel/dirt	20	684.6	gravel repair and maintain existing and cut/fill, drainage, gravel or select, for new section (mats as required)	0.22	0.0	Construction Access
18.6	TAR-11.1	Calcasieu	Greenfield	20	350.7	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	1.35	0.0	Construction Access
19.2	TAR-12.0	Calcasieu	Greenfield	20	766.5	cut/fill, drainage, gravel or select, mats as needed, maintain	0.29	0.0	Construction Access
19.8	TAR-13.0	Calcasieu	Greenfield	20	388.3	cut/fill, drainage, gravel or select, mats as needed, maintain	0.12	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
20.3	TAR-13.1	Calcasieu	Dirt	20	264.4	grade, drainage, gravel or select or mats as required, maintain	2.27	0.0	Construction Access
20.4	TAR-14.0	Calcasieu	Dirt	20	7345.7	grade, drainage, gravel or select or mats as required, maintain	0.22	0.0	Construction Access
20.8	TAR-14.2	Calcasieu	Dirt	20	1972.1	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
22.8	TAR-15.0	Calcasieu	Dirt	20	3136.0	grade, drainage, gravel or select or mats as required, maintain	0.11	0.0	Construction Access
22.8	TAR-15.1	Calcasieu	Dirt	20	993.1	grade, drainage, gravel or select or mats as required, maintain	0.75	0.0	Construction Access
23.5	TAR-16.0	Calcasieu	Dirt	20	2232.4	gravel repair and maintain entrance and cut/fill, drainage, gravel or select, for balance section (mats as required)	0.32	0.0	Construction Access
24.4	TAR-17.0	Calcasieu	Greenfield	20	450.4	grade, drainage, gravel or select or mats as required, maintain	0.09	0.0	Construction Access
25.3	TAR-18.0	Calcasieu	Dirt	20	2902.5	grade, drainage, gravel or select or mats as required, maintain	1.69	0.0	Construction Access
25.5	TAR-18.1	Calcasieu	Dirt	20	607.2	grade, drainage, gravel or select or mats as required, maintain	0.86	0.0	Contractor Yard 1
25.8	TAR-18.2	Calcasieu	Gravel	20	242.5	grade, drainage, gravel or select or mats as required, maintain	2.93	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
28.3	TAR-19.0	Calcasieu	Dirt	20	4943.6	grade, drainage, gravel or select or mats as required, maintain	1.83	0.0	Construction Access
29.1	TAR-19.1	Calcasieu	Dirt	20	466.9	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
30.6	TAR-19.2	Calcasieu	Dirt	20	153.1	grade, drainage, gravel or select or mats as required, maintain	0.01	0.0	Work Around
30.8	TAR-20.0	Calcasieu	Dirt	20	674.0	grade, drainage, gravel or select or mats as required, maintain	2.11	0.0	Construction Access
31.2	TAR-21.0	Calcasieu	Greenfield	20	162.6	grade, drainage, gravel or select or mats as required, maintain	0.25	0.0	Construction Access
33.7	TAR-22.0	Calcasieu	Dirt	20	3655.6	cut/fill, drainage, gravel or select, mats as needed, maintain	6.67	0.0	Construction Access
34.9	TAR-23.0	Calcasieu	Dirt	20	1871.5	cut/fill, drainage, gravel or select, mats as needed, maintain	0.40	0.0	Construction Access
37.1	TAR-24.0	Jefferson Davis and Calcasieu	Dirt	20	6387.9	cut/fill, drainage, gravel or select, mats as needed, maintain	0.41	0.0	Construction Access
39.0	TAR-24.1	Calcasieu	Dirt	20	3976.6	cut/fill, drainage, gravel or select, mats as needed, maintain	4.14	0.0	Construction Access
39.8	TAR-25.0	Jefferson Davis	Dirt	20	142.9	grade, drainage, gravel or select or mats as required, maintain	1.30	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
39.8	TAR-25.2	Jefferson Davis	Dirt	20	28.3	grade, drainage, gravel or select or mats as required, maintain	7.59	0.0	Construction Access
41.9	TAR-26.0	Jefferson Davis	Dirt	20	4562.7	grade, drainage, gravel or select or mats as required, maintain	4.52	0.0	Construction Access
43.3	TAR-27.0	Jefferson Davis	Dirt	20	502.4	grade, drainage, gravel or select or mats as required, maintain	1.58	0.0	Construction Access
43.4	TAR-32.1	Jefferson Davis	Dirt	20	73.9	grade, drainage, gravel or select or mats as required, maintain	0.03	0.0	Construction Access
44.3	TAR-28.2	Jefferson Davis	Gravel	20	853.4	grade, drainage, gravel or select or mats as required, maintain	3.42	0.0	Construction Access
44.9	TAR-28.4	Jefferson Davis	Gravel	20	882.5	grade, drainage, gravel or select or mats as required, maintain	0.11	0.0	Construction Access
45.6	TAR-28.0	Jefferson Davis	Gravel	20	14559.1	grade, widen, drainage, gravel or select or mats as required, maintain	0.19	0.0	Construction Access
46.3	TAR-28.6	Jefferson Davis	Gravel	20	9007.0	grade, widen, drainage, gravel or select or mats as required, maintain	0.27	0.0	Construction Access
47.4	TAR-30.0	Jefferson Davis and Allen	Gravel	20	16683.1	grade, drainage, gravel or select or mats as required, maintain	0.38	0.0	Construction Access
48.7	TAR-31.0	Jefferson Davis and Allen	Gravel	20	9799.0	grade, drainage, gravel or select or mats as required, maintain	2.04	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
49.3	TAR-31.2	Jefferson Davis	Gravel	20	3371.9	grade, drainage, gravel or select or mats as required, maintain	0.27	0.0	Construction Access
55.4	TAR-35.0	Jefferson Davis	Dirt	20	7327.3	clear, cut/fill, widen, drainage, gravel or select, mats as needed, maintain	0.27	0.0	Construction Access
58.6	TAR-36.0	Jefferson Davis	Greenfield	20	230.2	cut/fill, drainage, gravel or select, mats as needed, maintain	2.29	0.0	Construction Access
59.1	TAR-37.0	Jefferson Davis	Dirt	20	388.6	grade, drainage, gravel or select or mats as required, maintain	3.18	0.0	Construction Access
60.8	TAR-37.1	Jefferson Davis	Dirt	20	546.5	grade, drainage, gravel or select or mats as required, maintain	0.25	0.0	Construction Access
60.8	TAR-37.2	Jefferson Davis	Dirt	20	831.8	grade, drainage, gravel or select or mats as required, maintain	0.37	0.0	Construction Access
61.2	TAR-37.3	Jefferson Davis	Dirt	20	4373.4	grade, drainage, gravel or select or mats as required, maintain	0.07	0.0	Construction Access
63.2	TAR-37.4	Jefferson Davis	Dirt	20	553.9	grade, drainage, gravel or select or mats as required, maintain	0.56	0.0	Construction Access
65.4	TAR-37.6	Jefferson Davis	Dirt	20	582.4	grade, drainage, gravel, maintain	1.19	0.0	Construction Access
67.0	TAR-37.7	Jefferson Davis	Dirt	20	5003.1	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.54	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
67.8	TAR-37.8	Acadia	Dirt	20	6923.4	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.77	0.0	Construction Access
70.2	TAR-37.9	Acadia	Dirt	20	535.2	grade, drainage, gravel or select or mats as required, maintain	0.23	0.0	Work around
72.2	TAR-38.0	Acadia	Gravel	20	769.4	grade, drainage, gravel or select or mats as required, maintain	0.33	0.0	Construction Access
74.2	TAR-38.1	Acadia	Greenfield	20	110.4	clear, cut/fill, drainage, gravel or select, mats as needed, maintain	0.72	0.0	Construction Access
75.6	TAR-39.0	Evangeline	Dirt	20	1191.9	grade, drainage, gravel or select or mats as required, maintain	2.32	0.0	Construction Access
77.0	TAR-39.1	Evangeline	Dirt	20	2552.6	grade, drainage, gravel or select or mats as required, maintain	0.30	0.0	Construction Access
81.8	TAR-39.2	Evangeline	Dirt	20	1172.8	cut/fill, drainage, gravel or select, mats as needed, maintain	0.25	0.0	Construction Access
83.2	TAR-39.3	Evangeline	Dirt	20	1670.6	grade, drainage, gravel or select or mats as required, maintain	0.23	0.0	Construction Access
88.1	TAR-40.0	Evangeline	Gravel/ dirt	20	727.7	grade, drainage, gravel or select or mats as required, maintain	1.07	0.0	Construction Access
88.1	TAR-40.1	Evangeline	Gravel/dirt	20	1558.2	grade, widen, drainage, gravel or select or mats as required, maintain	2.11	0.0	Construction Access

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
Permanent Access Roads									
0.1	PAR-1.0	Calcasieu	Gravel	20	1062.7	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.07	0.07	MS 01 (PDS) & MS 03
0.0	PAR-1.2c	Calcasieu	Greenfield	20	273.7	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.00	0.00	Kinder Morgan Interconnect
1.9	PAR-2.0	Calcasieu	Greenfield	20	26.0	cut/fill, drainage, select compacted fill and gravel, maintain (may use mats temporarily as needed during construction)	0.03	0.03	MS 02
7.8	PAR-3.0	Calcasieu	Greenfield	20	318.8	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.15	0.15	MLV 02
7.8	PAR-3.1	Calcasieu	Dirt	20	92.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.06	0.06	MS 04

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
7.8	PAR-3.2	Calcasieu	Greenfield	20	119.3	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.05	0.05	MLV 02 and Cameron Interconnect
15.6	PAR-4.0	Calcasieu	Greenfield	20	2265.0	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	1.06	1.06	MLV 03
23.2	PAR-5.0	Calcasieu	Dirt	20	387.0	grade, drainage, select compacted fill and gravel , maintain (existing private drive)	0.19	0.19	MLV 04
31.2	PAR-6.0	Calcasieu	Greenfield	20	131.1	grade, drainage, select compacted fill and gravel ,transition to paved road, maintain	0.06	0.06	MLV 05
36.5	PAR-7.0	Jefferson Davis and Calcasieu	Dirt	20	17912.3	grade, drainage, select compacted fill and gravel ,transition to paved road, maintain	8.24	8.24	MS 05

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
39.8	PAR-7.9	Jefferson Davis and Calcasieu	Greenfield	20	118.8	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.05	0.05	Tetco Interconnect
39.9	PAR-8.0	Jefferson Davis and Calcasieu	Greenfield	20	21.3	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	MS 06
40.0	PAR-8.1	Jefferson Davis and Calcasieu	Greenfield	20	19.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	CS 01 & MLV 06
50.8	PAR-9.0	Jefferson Davis	Greenfield	20	726.2	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.35	0.35	MS 07
50.8	PAR-9.1	Jefferson Davis	Greenfield	20	2584.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	1.19	1.19	TGP-Kinder Interconnect

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
57.6	PAR-10.0	Jefferson Davis	Greenfield	20	66.5	grade, drainage, select compacted fill and gravel, transition to paved road, maintain	0.03	0.03	MLV 07
71.8	PAR-11.0	Acadia	Dirt	20	1292.2	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.61	0.61	CS 02 & MS 08
71.8	PAR-11.1	Acadia	Greenfield	20	49.9	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	Egan Interconnect
72.3	PAR-11.9	Acadia	Greenfield	20	159.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.07	0.07	Texas Gas Interconnect
72.4	PAR-12.0	Acadia	Greenfield	20	23.7	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.03	0.03	MS 09

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
72.9	PAR-12.9	Acadia	Greenfield	20	159.1	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.15	0.15	FGT Interconnect
73.0	PAR-13.0	Acadia	Gravel	20	954.0	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.43	0.43	MS 10 & MS 11
73.8	PAR-14.0	Acadia	Greenfield	20	1900.4	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.87	0.87	MS 12 & MLV 09
74.0	PAR-14.1	Acadia	Greenfield	20	275.6	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.13	0.13	ANR Interconnect
79.2	PAR-15.0	Evangeline	Greenfield	20	14.5	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.01	0.01	MS 13

Table 2.2-3 Access Roads									
Milepost	Access Road Name	Parish	Existing Road Type	Width (feet) ^a	Length (feet)	Proposed Modification	Temporary Requirements (acres) ^b	Permanent Requirements (acres) ^b	Purpose
84.5	PAR-16.0	Evangeline	Greenfield	20	24.5	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	CS 03 & MLV 10
84.7	PAR-16.1	Evangeline	Greenfield	20	36.7	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.02	0.02	MS 14
95.9	PAR-17	Evangeline	Gravel	20	650.9	cut/fill, drainage, select compacted fill and gravel , maintain (may use mats temporarily as needed during construction)	0.31	0.31	MS 15
^a Note 20 feet wide access roads are sufficient for construction vehicles, but ATWS have been added in a few instances to allow for sufficient vehicle navigation ^b Acreages are rounded and include all acreages outside the Facility site, whether or not they overlap with Pipeline ROW workspaces. ^c Acreages for PAR-1.2 are accounted for within the Facility footprint									

Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification ^a	Fishery Type ^b	Crossing Length at OHWM (feet)	Crossing Method ^c	Permanent Fill/Loss (acres)
Lower Calcasieu (HUC 08080206)								
<i>Facility Boundary</i>								
S1ACA003	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.07
S1ACA004	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.01
S1ACA005	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.01
S1ACA006	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.14
S1ACA007	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.03
S1ACA008	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.16
S1ACA009	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.15
S1ACA010	Unnamed	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.28
S1ACA011	Unnamed	Drainage Ditch	Perennial	PCR, SCR, FWP	Warmwater	15	Fill	0.46
S1ACA012	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	4	Fill	0.04
S1ACA013	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	4	Fill	0.04
S1ACA015	Unnamed tributary to Bayou Choupique	Open Water	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	9.71
S1ACA001	Unnamed	Pond	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.28
S1ACA002	Unnamed	Pond	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.14
S1ACA016	Unnamed	Man-made lake	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	55.00
S1CCA001	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.16
S1CCA002	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.28

Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification ^a	Fishery Type ^b	Crossing Length at OHWM (feet)	Crossing Method ^c	Permanent Fill/Loss (acres)
S1CCA003	Unnamed	Pond	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.10
S1CCA004	Unnamed	Pond	N/A ^e	PCR, SCR, FWP	Warmwater	N/A ^f	Fill	0.05
S1CCA005	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	20	Fill	0.38
S1CCA006	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	10	Fill	0.15
S1CCA007	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP	Warmwater	9	Fill	0.03
NHD_80 ^d	Calcasieu River	River	Perennial	PCR, SCR, FWP, OYS	Warmwater	N/A	Dredge	2.54
NHD_81 ^d	Calcasieu River Ship Channel	Canal	Perennial	PCR, SCR, FWP, OYS	Warmwater	N/A	Dredge	29.10
NHD_82 ^d	Intracoastal Waterway	Canal	Perennial	PCR, SCR, FWP	Warmwater	N/A	Dredge	2.50
Upper Calcasieu (HUC 08080203)								
Temporary Offsite Construction Areas								
NHD_119 ^d	Unnamed	Drainage Ditch	Ephemeral	PCR, SCR, FWP (N-Hg), AGR	Warmwater	9	Culvert	0.01

**Table 4.3-3
Waterbodies Crossed or Otherwise Affected by the LNG Facility**

Feature ID	Waterbody Name	Feature Type	Flow Regime	State Water Quality Classification ^a	Fishery Type ^b	Crossing Length at OHWM (feet)	Crossing Method ^c	Permanent Fill/Loss (acres)
<p>N/A = not applicable</p> <p>^a State Water Quality Designated Use Description Classifications: PCR = Primary Contact Recreation (swimming) SCR = Secondary Contact Recreation (boating) FWP = Fish and Wildlife Propagation (fishing) DWS = Drinking Water Supply ONR = Outstanding Natural Resource OYS = Oyster Propagation GC =General Criteria AGR = Agriculture None =No 305b Assessment by LDEQ</p> <p>^b Based on correspondence with LDWF (Reed, 2017).</p> <p>^c All impacts within the Facility are considered permanent.</p> <p>^d Feature delineated utilizing a desktop analysis.</p> <p>^e Feature is open water and does not have a flow regime.</p> <p>^f Feature is open water and does not have an ordinary high water mark.</p> <p>Use Support Codes for Designated Uses: N = Not supporting designated use</p> <p>Suspected Impairment Cause: Mercury (Hg)</p>								

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
Lower Calcasieu (HUC 08080206)										
<i>Pipeline</i>										
scaa026	Ditch	Road Ditch	Ephemeral	0.89	PCR, SCR, FWP	1	Open-cut	0.001	0.00/0.00	0.001
ocaa003	Lake	Lake	N/A ^e	1.11	PCR, SCR, FWP	209 ^f	Open-cut	0.24	0.00/0.00	0.24
scaa027	Ditch	Road Ditch	Perennial	1.37	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
scaa028	Ditch	Road Ditch	Perennial	1.38	PCR, SCR, FWP	4	Open-cut	0.01	0.00/0.00	0.01
scaa029	Ditch	Road Ditch	Perennial	1.86	PCR, SCR, FWP	4	Open-cut	0.005	0.00/0.00	0.005
scaa030	Ditch	Road Ditch	Ephemeral	1.87	PCR, SCR, FWP	4	Open-cut	0.005	0.00/0.00	0.005
NHD_01 ^a	Unnamed	Ditch	Intermittent	2.36	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_02 ^a	Unnamed	Ditch	Ephemeral	2.53	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scaa033	Ditch	Ditch	Perennial	2.76	PCR, SCR, FWP	8	Open-cut	0.04	0.00/0.00	0.04
scaa032	Ditch	Ditch	Intermittent	2.82	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
scaa031	Ditch	Ditch	Intermittent	2.83	PCR, SCR, FWP	3	Open-cut	0.004	0.00/0.00	0.004
NHD_03 ^a	Unnamed	Ditch	Intermittent	3.11	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_120 ^a	Unnamed	Ditch	Ephemeral	3.29	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_04 ^a	Unnamed	Ditch	Intermittent	3.48	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_05 ^a	Unnamed	Ditch	Perennial	3.76	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_06 ^a	Unnamed	Ditch	Intermittent	4.05	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_07 ^a	Unnamed	Ditch	Ephemeral	4.15	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_08 ^a	Unnamed	Stream or River	Intermittent	4.31	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_09 ^a	Unnamed	Ditch	Perennial	4.35	PCR, SCR, FWP	2	Open-cut	0.004	0.00/0.00	0.004
NHD_10 ^a	Unnamed	Ditch	Perennial	4.37	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_11 ^a	Unnamed	Ditch	Ephemeral	4.69	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
NHD_12 ^a	Unnamed	Stream or River	Perennial	5.03	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae022	Ditch	Road Ditch	Perennial	5.81	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae023	Ditch	Ditch	Intermittent	6.30	PCR, SCR, FWP	7	Open-cut	0.02	0.00/0.00	0.02
scae021	Ditch	Ditch	Perennial	7.05	PCR, SCR, FWP	2	Workspace Only	0.002	0.00/0.00	0.002
scae021	Ditch	Ditch	Perennial	7.07	PCR, SCR, FWP	2	Open-cut	0.01	0.00/0.00	0.01
scae020	Unnamed Tributary to Bayou Choupique	Stream	Perennial	7.54	PCR, SCR, FWP	5	Open-cut	0.02	0.00/0.00	0.02
ocae005	Pond	Stock Pond	N/A ^e	7.64	PCR, SCR, FWP	604 ^f	Open-cut	1.01	0.00/0.00	1.01
scae017	Ditch	Ditch	Intermittent	7.82	PCR, SCR, FWP	2	Workspace Only	0.01	0.00/0.00	0.01
scae018	Ditch	Road Ditch	Intermittent	7.82	PCR, SCR, FWP	4	Open-cut	0.002	0.00/0.00	0.002
scae016	Ditch	Road Ditch	Intermittent	7.84	PCR, SCR, FWP	2	Open-cut	0.002	0.00/0.00	0.002
ocae004	Pond	Stock Pond	N/A ^e	7.91	PCR, SCR, FWP	243 ^f	Open-cut	0.53	0.00/0.00	0.53
scae015	Ditch	Ditch	Perennial	8.35	PCR, SCR, FWP	5	Open-cut	0.01	0.00/0.00	0.01
ocae003	Pond	Stock Pond	N/A ^e	8.48	PCR, SCR, FWP	0 ^f	Workspace Only	0.02	0.00/0.00	0.02
NHD_100 ^a	Canal	Canal	Perennial	8.62	PCR, SCR, FWP	54	HDD	0.00	0.00/0.00	0.00
NHD_101 ^a	Canal	Canal	Perennial	8.78	PCR, SCR, FWP	60	HDD	0.00	0.00/0.00	0.00
scac001	Ditch	Road Ditch	Intermittent	11.64	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO ₃ , NO ₂ , DO, PO ₄ , PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scac007	Ditch	Road Ditch	Intermittent	11.66	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO ₃ , NO ₂ , DO, PO ₄ , PCB)	3	Open-cut	0.004	0.00/0.00	0.004

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaa035	Ditch	Road Ditch	Perennial	12.07	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scaa034	Ditch	Road Ditch	Perennial	12.08	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Open-cut	0.005	0.00/0.00	0.005
scaa036	Ditch	Road Ditch	Perennial	12.20	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	5	Open-cut	0.01	0.00/0.00	0.01
scaa037	Ditch	Road Ditch	Perennial	12.50	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	6	Open-cut	0.01	0.00/0.00	0.01
scac006	Ditch	Road Ditch	Perennial	12.51	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	9	Open-cut	0.01	0.00/0.00	0.01
scac005	Unnamed Tributary to Bayou d'Inde	Stream	Perennial	12.98	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	6	Open-cut	0.02	0.00/0.00	0.02
NHD_15 ^a	Unnamed (leg of Houston River Canal)	Canal	Perennial	13.04	PCR, SCR, FWP, DWS (N-color), AGR	88	Bore	0.10	0.00/0.00	0.10
scac003	Bayou d'Inde	Ditch	Perennial	13.17	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	10	Open-cut	0.03	0.00/0.00	0.03
NHD_16 ^a	Bayou d'Inde	Stream or River	Perennial	13.17	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	1	Open-cut	0.001	0.00/0.00	0.001

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scac002	Unnamed (leg of Houston River Canal)	Canal	Perennial	13.74	PCR, SCR, FWP, DWS (N-color), AGR	91	Bore	0.11	0.00/0.00	0.11
NHD_17 ^a	Unnamed	Stream or River	Intermittent	14.94	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	10	Workspace Only	0.003	0.00/0.00	0.003
scaa001	Houston River Canal	Canal	Perennial	15.20	PCR, SCR, FWP, DWS (N-color), AGR	130	HDD	0.00	0.00/0.00	0.00
scaa002	Unnamed	Stream	Ephemeral	15.23	PCR, SCR, FWP, DWS (N-color), AGR	8	HDD	0.00	0.00/0.00	0.00
scaa003	Unnamed	Stream	Ephemeral	15.47	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
scaa005	Ditch	Road Ditch	Ephemeral	15.92	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scaa006	Ditch	Road Ditch	Ephemeral	15.92	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scae003	Unnamed Tributary to Houston River	Stream	Intermittent	16.73	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
NHD_18 ^a	Unnamed	Stream or River	Perennial	PAR-4.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
scaa029	Ditch	Road Ditch	Perennial	PAR-2.0	PCR, SCR, FWP	4	Culvert	0.00	0.003/2.42	0.003
scae018	Ditch	Road Ditch	Intermittent	PAR-3.0	PCR, SCR, FWP	4	Culvert	0.00	0.004/3.23	0.004
NHD_01 ^a	Unnamed	Stream or River/Ditch	Intermittent	TAR-1.1	PCR, SCR, FWP	2	Culvert	0.001	0.00/0.00	0.001
scay003	Unnamed	Ditch	Perennial	TAR-10.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.003	0.00/0.00	0.003

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scay001	Unnamed	Stream	Perennial	TAR-10.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Culvert	0.02	0.00/0.00	0.02
scay001	Unnamed	Stream	Perennial	TAR-10.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	4	Culvert	0.01	0.00/0.00	0.01
scae020	Unnamed Tributary to Bayou Choupique	Stream	Perennial	TAR-2.0	PCR, SCR, FWP	6	Culvert	0.003	0.00/0.00	0.003
scag005	Ditch	Ditch	Perennial	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	8	Culvert	0.005	0.00/0.00	0.005
NHD_13 ^a	Unnamed	Stream or River	Perennial	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.001	0.00/0.00	0.001
NHD_14 ^a	Unnamed	Canal/Ditch	Ephemeral	TAR-5.0	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	50	Culvert	0.02	0.00/0.00	0.02
scag007	Ditch	Ditch	Perennial	TAR-5.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	26	Culvert	0.01	0.00/0.00	0.01
scag009	Ditch	Ditch	Ephemeral	TAR-5.1	PCR (N-PCB), SCR, FWP (N-TCE, Br, HCBz, HCBu, NO3, NO2, DO, PO4, PCB)	2	Culvert	0.001	0.00/0.00	0.001
scae003	Unnamed Tributary to Houston River	Stream	Intermittent	16.73	PCR, SCR, FWP (N-Cl, DO, Hg, SO4, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scae004	Unnamed Tributary to Houston River	Stream	Intermittent	16.75	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
scae006	Unnamed Tributary to Houston River	Stream	Intermittent	16.78	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scae007	Unnamed Tributary to Houston River	Stream	Perennial	17.04	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	8	Open-cut	0.04	0.00/0.00	0.04
scaa012	Unnamed Tributary to Houston River	Stream	Perennial	17.37	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	18	Open-cut	0.06	0.00/0.00	0.06
scaa009a	Ditch	Ditch	Ephemeral	17.48	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	1	Open-cut	0.003	0.00/0.00	0.003
scaa100	Houston River	Stream	Perennial	17.68	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	88	HDD	0.00	0.00/0.00	0.00
scae008	Unnamed Tributary to Houston River	Stream	Perennial	18.49	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
scae009	Unnamed Tributary to Houston River	Stream	Perennial	18.94	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	5	Open-cut	0.04	0.00/0.00	0.04
scae010	Unnamed Tributary to Houston River	Stream	Perennial	19.53	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01
scae011	Unnamed Tributary to Houston River	Stream	Intermittent	19.71	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaa015	Ditch	Road Ditch	Perennial	21.59	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scaa014	Ditch	Road Ditch	Perennial	21.60	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	3	Open-cut	0.003	0.00/0.00	0.003

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaa017	Ditch	Ditch	Intermittent	21.75	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaa018	Unnamed Tributary to Houston River	Stream	Perennial	21.81	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	12	Open-cut	0.08	0.00/0.00	0.08
scaa018	Unnamed Tributary to Houston River	Stream	Perennial	22.14	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	12	Open-cut	0.04	0.00/0.00	0.04
scaa013	West Fork Calcasieu River	River	Perennial	23.72	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	183	HDD	0.00	0.00/0.00	0.00
scaa013	West Fork Calcasieu River	River	Perennial	23.76	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	183	Workspace Only	0.001	0.00/0.00	0.001
scag004	Ditch	Road Ditch	Ephemeral	24.29	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	4	HDD	0.00	0.00/0.00	0.00
NHD_21 ^a	Unnamed	Canal/ Ditch	Intermittent	24.53	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_22 ^a	Unnamed	Stream or River	Ephemeral	24.55	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_23 ^a	Unnamed	Canal/ Ditch	Ephemeral	24.59	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_109 ^a	Unnamed	Stream	Ephemeral	24.83	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scag003	Ditch	Road Ditch	Perennial	25.71	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	3	Open-cut	0.001	0.00/0.00	0.001
scag003	Ditch	Road Ditch	Perennial	25.74	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scag002	Ditch	Ditch	Intermittent	26.17	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	1	Open-cut	0.003	0.00/0.00	0.003
scag001	Ditch	Ditch	Perennial	26.46	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.004	0.00/0.00	0.004
ocag001	Pond	Stock Pond	N/A ^e	26.57	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	87 ^f	Open-cut	0.26	0.00/0.00	0.26
scaf024	Unnamed Tributary to Indian Bayou	Stream	Ephemeral	26.95	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Open-cut	0.02	0.00/0.00	0.02
scaf023	Ditch	Road Ditch	Intermittent	27.05	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.003	0.00/0.00	0.003
scaf022	Ditch	Road Ditch	Intermittent	27.06	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
NHD_24 ^a	Unnamed	Stream or River	Intermittent	27.40	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scaf020	Ditch	Road Ditch	Ephemeral	27.58	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.004	0.00/0.00	0.004
scaf019	Ditch	Road Ditch	Ephemeral	27.59	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scaf018	Indian Bayou	Stream	Perennial	27.69	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	18	Open-cut	0.05	0.00/0.00	0.05
scaf014	Ditch	Road Ditch	Perennial	27.84	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaf015	Unnamed Tributary to Indian Bayou	Stream	Perennial	27.92	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.01	0.00/0.00	0.01

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaf017	Ditch	Ditch	Ephemeral	27.93	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Workspace Only	0.02	0.00/0.00	0.02
scaf016	Ditch	Ditch	Perennial	27.95	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.04	0.00/0.00	0.04
scaf013	Ditch	Ditch	Perennial	28.31	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Workspace Only	0.07	0.00/0.00	0.07
scaf012	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	28.49	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01
scaf011	Ditch	Ditch	Intermittent	29.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scaf009	Ditch	Ditch	Intermittent	29.22	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.005	0.00/0.00	0.005
scaf010	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	29.23	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	5	Open-cut	0.01	0.00/0.00	0.01
scaf007	Ditch	Ditch	Perennial	29.57	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.02	0.00/0.00	0.02
NHD_26 ^a	Unnamed	Stream or River	Intermittent	30.22	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.001	0.00/0.00	0.001
scaf006	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	30.23	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.01	0.00/0.00	0.01
scaf005	Ditch	Ditch	Perennial	30.29	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.01	0.00/0.00	0.01

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
ocaf001	Pond	Stock Pond	N/A ^e	30.59	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	86 ^f	Open-cut	0.20	0.00/0.00	0.20
scaf004	Ditch	Ditch	Intermittent	30.81	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	6	Open-cut	0.01	0.00/0.00	0.01
scaf002	Little Indian Bayou	Stream	Perennial	30.93	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	17	Open-cut	0.04	0.00/0.00	0.04
scaf001	Ditch	Ditch	Perennial	31.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Open-cut	0.004	0.00/0.00	0.004
scab007	Ditch	Ditch	Ephemeral	31.24	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.002	0.00/0.00	0.002
scab004	Unnamed Tributary to Little Indian Bayou	Stream	Ephemeral	31.58	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.01	0.00/0.00	0.01
scab003	Unnamed Tributary to Little Indian Bayou	Stream	Perennial	31.87	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	10	Open-cut	0.03	0.00/0.00	0.03
scab002	Unnamed Tributary to Little Indian Bayou	Stream	Ephemeral	32.21	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab005	Ditch	Ditch	Ephemeral	32.37	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Open-cut	0.003	0.00/0.00	0.003
NHD_115 ^a	Ditch	Ditch	Ephemeral	32.37	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Workspace	0.01	0.00/0.00	0.01
scab010	Ditch	Ditch	Ephemeral	32.38	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Open-cut	0.003	0.00/0.00	0.003

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_27 ^a	Unnamed	Ag Ditch	Intermittent	32.63	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab008	Unnamed Tributary to Birdsnest Gully	Stream	Ephemeral	33.15	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Open-cut	0.01	0.00/0.00	0.01
NHD_116 ^a	Unnamed	Stream	Ephemeral	33.15	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Workspace Only	0.001	0.00/0.00	0.001
NHD_28 ^a	Unnamed	Ag Ditch	Ephemeral	33.65	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.001	0.00/0.00	0.001
<i>Access Roads</i>										
scaf001	Ditch	Ditch	Perennial	PAR-6.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Culvert	0.00	0.01/8.07	0.01
scaa009b	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	1	Culvert	0.002	0.00/0.00	0.002
scaa010	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	1	Culvert	0.001	0.00/0.00	0.001
scaa010	Ditch	Ditch	Ephemeral	TAR-11.0	PCR, SCR, FWP (N-Cl, DO, Hg, SO ₄ , TDS), AGR	1	Culvert	0.001	0.00/0.00	0.001
NHD_113 ^a	Unknown	Unknown	Ephemeral	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.001	0.00/0.00	0.001
NHD_114 ^a	Unknown	Unknown	Intermittent	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.003	0.00/0.00	0.003
NHD_111 ^a	Ditch	Ditch	Ephemeral	TAR-19.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	2	Culvert	0.001	0.00/0.00	0.001
scaf009	Ditch	Ditch	Intermittent	TAR-19.1	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	4	Culvert	0.004	0.00/0.00	0.004

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaf004	Ditch	Ditch	Intermittent	TAR-20.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	3	Culvert	0.002	0.00/0.00	0.002
scaf001	Ditch	Ditch	Perennial	TAR-21.0	PCR (N-Fecal), SCR (N-Fecal), FWP (N-DO), AGR	8	Culvert	0.01	0.00/0.00	0.01
Upper Calcasieu (HUC 08080203)										
<i>Pipeline</i>										
NHD_29 ^a	Unnamed	Ag Ditch	Ephemeral	33.95	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.004	0.00/0.00	0.004
NHD_30 ^a	Unnamed	Ag Ditch	Ephemeral	34.43	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_31 ^a	Unnamed	Ag Ditch	Ephemeral	34.45	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_31 ^a	Unnamed	Ag Ditch	Ephemeral	34.51	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
NHD_35 ^a	Unnamed	Ag Ditch	Intermittent	34.90	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_37 ^a	Unnamed	Ag Ditch	Intermittent	35.52	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_38 ^a	Unnamed	Ag Ditch	Intermittent	35.53	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	28	Open-cut	0.01	0.00/0.00	0.01
NHD_39 ^a	Unnamed	Ag Ditch	Perennial	36.02	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_40 ^a	Unnamed	Ag Ditch	Intermittent	36.20	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_41 ^a	Blackman Bayou	Stream or River	Perennial	36.45	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_42 ^a	Unnamed	Stream or River	Intermittent	36.79	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_42 ^a	Unnamed	Stream or River	Intermittent	36.90	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.03	0.00/0.00	0.03

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_42 ^a	Unnamed	Stream or River	Intermittent	37.33	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Workspace Only	0.002	0.00/0.00	0.002
NHD_44 ^{a, i}	Unnamed	Ag Ditch	Intermittent	37.34	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
scab100 ⁱ	Calcasieu River	River	Perennial	37.56	PCR, SCR, FWP (N-Pb, Hg, TDS), ONR (N-Turb), AGR	77	HDD	0.00	0.00/0.00	0.00
scab100 ⁱ	Calcasieu River	River	Perennial	37.61	PCR, SCR, FWP (N-Pb, Hg, TDS), ONR (N-Turb), AGR	213	HDD	0.00	0.00/0.00	0.00
NHD_45 ^{a, i}	Unnamed	Stream or River	Intermittent	38.58	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sjeb034 ⁱ	Ditch	Road Ditch	Ephemeral	39.54	PCR, SCR, FWP (N-Hg), AGR	1	Workspace Only	0.001	0.00/0.00	0.001
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	39.79	PCR, SCR, FWP (N-Hg), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sjeb027	Unnamed Tributary to Calcasieu River	Stream	Intermittent	40.58	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjeb028	Unnamed Tributary to Calcasieu River	Stream	Ephemeral	40.67	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb030	Ditch	Ditch	Ephemeral	40.67	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.02	0.00/0.00	0.02
sjeb029	Unnamed Tributary to Calcasieu River	Stream	Ephemeral	40.68	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.004	0.00/0.00	0.004
sjeb025	Ditch	Ditch	Ephemeral	40.81	PCR, SCR, FWP (N-Hg), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sjeb026	Ditch	Ditch	Ephemeral	40.81	PCR, SCR, FWP (N-Hg), AGR	4	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjeb024	Unnamed Tributary to Calcasieu River	Stream	Intermittent	41.44	PCR, SCR, FWP (N-Hg), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sjeb023	Ditch	Ditch	Intermittent	41.90	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb021	Unnamed Tributary to Calcasieu River	Stream	Intermittent	42.00	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb022	Ditch	Ditch	Ephemeral	42.02	PCR, SCR, FWP (N-Hg), AGR	1	Open-cut	0.004	0.00/0.00	0.004
NHD_49 ^a	Unnamed	Ditch	Intermittent	42.86	PCR, SCR, FWP (N-Hg), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjeb020	Ditch	Road Ditch	Ephemeral	43.09	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sjef001	Ditch	Road Ditch	Ephemeral	43.11	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjef002	Thompson Gully	Stream	Intermittent	43.13	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	9	Open-cut	0.02	0.00/0.00	0.02
sjef003	Unnamed Tributary to Thompson Gully	Stream	Intermittent	43.29	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
sjef004	Unnamed Tributary to Thompson Gully	Stream	Perennial	43.93	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.05	0.00/0.00	0.05
sjez012	Canal	Ag Ditch	Perennial	44.15	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	15	Open-cut	0.06	0.00/0.00	0.06
sjez005	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	45.21	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjez006	Unnamed Tributary to Bayou Serpent	Stream	Perennial	45.42	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	22	Open-cut	0.06	0.00/0.00	0.06
ojez001	Pond	Stock Pond	N/A ^e	45.61	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	35 ^f	Open-cut	0.08	0.00/0.00	0.08
ojez002	Pond	Impoundment	N/A ^e	45.74	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	60 ^f	Open-cut	0.10	0.00/0.00	0.10
sjez007	Unnamed Tributary to Bayou Serpent	Ditch	Perennial	45.76	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	38	Workspace Only	0.03	0.00/0.00	0.03
sjez008	Bayou Serpent	Stream	Perennial	45.88	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	100	Open-cut	0.31	0.00/0.00	0.31
sjez009	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	46.56	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjez010	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	46.71	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjez011	Bayou Serpent	Stream	Perennial	46.96	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	79	Open-cut	0.25	0.00/0.00	0.25
sjey009	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.05	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.01	0.00/0.00	0.01
sjey009	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.10	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.09	0.00/0.00	0.09
sjey010	Unnamed Tributary to Bayou Serpent	Stream	Perennial	47.30	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	16	Open-cut	0.08	0.00/0.00	0.08

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
ojey001	Pond	Stock Pond	N/A ^e	49.44	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	417 ^f	Open-cut	1.22	0.00/0.00	1.22
sje006	Unnamed Tributary to Bayou Serpent	Stream	Intermittent	49.53	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	30	Open-cut	0.09	0.00/0.00	0.09
sje005	Unnamed	Road Ditch	Intermittent	49.76	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sje004	Unnamed	Road Ditch	Intermittent	49.77	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sje002	Unnamed	Ag Ditch	Perennial	49.97	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
sje001	Unnamed	Ag Ditch	Intermittent	50.04	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.14	0.00/0.00	0.14
sje001	Unnamed	Ag Ditch	Intermittent	50.28	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	10	Open-cut	0.03	0.00/0.00	0.03
NHD_57 ^a	Unnamed	Road Ditch	Ephemeral	50.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sje015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	50.98	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Open-cut	0.05	0.00/0.00	0.05
sje015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	50.98	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Workspace Only	0.01	0.00/0.00	0.01
sje001	Unnamed Tributary to Gum Bayou	Stream	Ephemeral	51.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.07	0.00/0.00	0.07
sje002	Gum Bayou	Stream	Perennial	51.59	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	27	Open-cut	0.12	0.00/0.00	0.12
sje003	Unnamed Tributary to Gum Bayou	Stream	Perennial	51.70	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.03	0.00/0.00	0.03
sje003	Unnamed Tributary to Gum Bayou	Stream	Perennial	51.78	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	8	Open-cut	0.06	0.00/0.00	0.06

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_92 ^a	Unnamed	Ditch	Intermittent	53.2	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.001	0.00/0.00	
sjea021	Ditch	Road Ditch	Perennial	53.43	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	20	Open-cut	0.02	0.00/0.00	0.02
sjea022	Ditch	Road Ditch	Perennial	53.44	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	19	Open-cut	0.02	0.00/0.00	0.02
sjeb009	Ditch	Ag Ditch	Intermittent	54.29	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjeb007	Ditch	Road Ditch	Ephemeral	54.46	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb008	Ditch	Road Ditch	Ephemeral	54.47	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjeb006	Unnamed Tributary to Bayou Serpent	Stream or River	Perennial	55.41	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	18	HDD	0.00	0.00/0.00	0.00
sjeb004	Bayou Serpent	Stream or River	Perennial	56.27	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	26	HDD	0.00	0.00/0.00	0.00
sjeb005	Ditch	Road Ditch	Ephemeral	56.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	HDD	0.00	0.00/0.00	0.00
sjeb014	Ditch	Road Ditch	Ephemeral	56.51	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	HDD	0.00	0.00/0.00	0.00
sjeb013	Ditch	Road Ditch	Ephemeral	57.55	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjeb012	Ditch	Road Ditch	Ephemeral	57.56	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sjeb011	Ditch	Ag Ditch	Ephemeral	58.58	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Open-cut	0.02	0.00/0.00	0.02
sjeb010	Unnamed Tributary to Bayou Alligator	Stream	Perennial	59.12	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	12	Open-cut	0.04	0.00/0.00	0.04
sjed019	Ditch	Road Ditch	Ephemeral	59.62	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed020	Ditch	Road Ditch	Ephemeral	59.62	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed017	Ditch	Road Ditch	Ephemeral	60.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed018	Ditch	Road Ditch	Ephemeral	60.64	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Open-cut	0.001	0.00/0.00	0.001
ojeb001	Pond	Pond	N/A ^e	60.71	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	0 ^f	Workspace Only	0.31	0.00/0.00	0.31
<i>Access Road</i>										
sjeb012	Ditch	Road Ditch	Ephemeral	PAR-10.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.00	0.01/8.07	0.01
NHD_32 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.002/1.16	0.002
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.003/2.42	0.003
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.001/0.81	0.001
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.004/3.23	0.004
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.05/40.33	0.05
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.003/2.42	0.003
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_33 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_34 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.01/8.07	0.01
NHD_34 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.05/40.33	0.05
NHD_34 ^a	Unnamed	Canal/ Ditch	Ephemeral	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02
NHD_41 ^a	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.00	0.02/16.13	0.02
NHD_41 ^a	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.01/8.07	0.01
NHD_41 ^a	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.02/16.13	0.02
NHD_41 ^a	Blackman Bayou	Stream or River	Perennial	PAR-7.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	3	Culvert	0.00	0.02/16.13	0.02
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	PAR-8.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	6	Culvert	0.00	0.003/2.42	0.003
sjez015	Unnamed Tributary to Gum Bayou	Ag Ditch	Perennial	PAR-9.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	17	Culvert	0.00	0.01/8.07	0.01
sjeb031	Unnamed Tributary to Calcasieu River	Stream	Perennial	TAR-25.2	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	6	Culvert	0.003	0.00/0.00	0.003
NHD_36 ^a	Blackman Bayou	Stream or River	Perennial	TAR-23.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_42 ^a	Unnamed	Stream or River	Intermittent	TAR-24.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_43 ^a	Unnamed	Stream or River	Ephemeral	TAR-24.0	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_46 ^a	Unnamed	Stream or River	Ephemeral	TAR-24.1	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_47 ^a	Unnamed	Stream or River	Ephemeral	TAR-24.1	PCR, SCR, FWP (N-Pb, Hg, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
scaq001	Unnamed Tributary to Thompson Gully	Ditch	Intermittent	TAR-27.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.004	0.00/0.00	0.004
sjex002	Unnamed Tributary to Bayou Serpent	Stream	Perennial	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	5	Culvert	0.002	0.00/0.00	0.002
sjex003	Unnamed Tributary to Bayou Serpent	Stream	Perennial	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	33	Culvert	0.02	0.00/0.00	0.02
NHD_50 ^a	Unnamed	Canal/ Ditch	Ephemeral	TAR-28.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.01	0.00/0.00	0.01
NHD_51 ^a	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_51 ^a	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_52 ^a	Cow Bayou	Stream or River	Perennial	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_53 ^a	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_54 ^a	Unnamed	Stream or River	Intermittent	TAR-30.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_55 ^a	Unnamed	Stream or River	Intermittent	TAR-31.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_56 ^a	Unnamed	Stream or River	Intermittent	TAR-31.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.03	0.00/0.00	0.03
sjey015	Ditch	Ditch	Ephemeral	TAR-36.0	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	3	Culvert	0.003	0.00/0.00	0.003
ojeb001	Pond	Pond	N/A ^e	TAR-37.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	0 ^f	Culvert	0.002	0.00/0.00	0.002
sjed017	Ditch	Road Ditch	Ephemeral	TAR-37.1	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	1	Culvert	0.002	0.00/0.00	0.002

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ⁹	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjey012	Ditch	Ditch	Ephemeral	TAR-37.2	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	3	Culvert	0.003	0.00/0.00	0.003
sjey013	Ditch	Ditch	Ephemeral	TAR-37.3	PCR, SCR, FWP(N-Pb, DO, TDS), AGR	2	Culvert	0.003	0.00/0.00	0.003
<i>Contractor/Pipe Yards</i>										
sjeh008	Unnamed	Stream or River	Perennial	Pipe Yard	PCR, SCR, FWP (N-Pb, DO, TDS), AGR	25	Open-cut	0.43	0.00/0.00	0.43
sjeh019	Unnamed	Stream or River	Perennial	Pipe Yard	PCR, SCR, FWP (N – Pb, DO, TDS), AGR	9	Open-cut	0.02	0.00/0.00	0.02
Mermentau Headwaters (HUC 08080202)										
<i>Pipeline</i>										
sjed016	Ditch	Road Ditch	Ephemeral	61.73	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed015	Ditch	Road Ditch	Ephemeral	61.74	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sjed013	Ditch	Road Ditch	Ephemeral	62.75	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed012	Ditch	Ag Ditch	Ephemeral	62.76	PCR (N- Fecal), SCR, FWP (N- DO, Hg), AGR	2	Open-cut	0.002	0.00/0.00	0.002
Mermentau Headwaters (HUC 08080201)										
<i>Pipeline</i>										
sjed011	Ditch	Ag Ditch	Ephemeral	63.35	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sjed010	Ditch	Road Ditch	Ephemeral	63.78	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sjed009	Ditch	Road Ditch	Ephemeral	63.79	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed007	Ditch	Ag Ditch	Ephemeral	64.06	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Workspace Only	0.004	0.00/0.00	0.004
sjed008	Ditch	Road Ditch	Ephemeral	64.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.02	0.00/0.00	0.02
sjed006	Ditch	Ag Ditch	Ephemeral	64.12	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjed005	Ditch	Ag Ditch	Ephemeral	64.13	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sjeb016	Rogers Gully	Stream or River	Perennial	64.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	34	Open-cut	0.11	0.00/0.00	0.11
sjeb015	Unnamed Tributary to Rogers Gully	Stream	Intermittent	64.76	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sjed003	Ditch	Road Ditch	Ephemeral	64.90	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed004	Ditch	Road Ditch	Ephemeral	64.90	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjed002	Ditch	Road Ditch	Ephemeral	65.41	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjed001	Ditch	Road Ditch	Ephemeral	65.42	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb001	Ditch	Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb002	Ditch	Road Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sjeb003	Ditch	Ag Ditch	Ephemeral	65.96	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Workspace Only	0.002	0.00/0.00	0.002
NHD_65 ^a	Unnamed	Stream or River	Intermittent	66.61	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sacb028	Unnamed Tributary to Bayou Nezpique	Stream or River	Perennial	67.48	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	87	HDD	0.00	0.00/0.00	0.00
sacb020	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	67.95	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sacb022	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	68.01	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.004	0.00/0.00	0.004
sacb025	Unnamed Tributary to Bayou Nezpique	Stream	Intermittent	68.19	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sacb024	Unnamed Tributary to Bayou Nezpique	Stream	Intermittent	68.21	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.02	0.00/0.00	0.02
sacb026	Unnamed Tributary to Bayou Nezpique	Stream	Ephemeral	68.25	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Workspace Only	0.01	0.00/0.00	0.01
sacb009	Ditch	Road Ditch	Ephemeral	68.54	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.005	0.00/0.00	0.005
sacb009	Ditch	Road Ditch	Ephemeral	68.63	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Workspace Only	0.01	0.00/0.00	0.01
sacb011	Ditch	Road Ditch	Ephemeral	68.94	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sacb010	Ditch	Road Ditch	Ephemeral	68.94	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Workspace Only	0.03	0.00/0.00	0.03
sacb010	Ditch	Road Ditch	Ephemeral	69.04	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.01	0.00/0.00	0.01
sacb008	Ditch	Road Ditch	Ephemeral	69.05	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb007	Ditch	Road Ditch	Ephemeral	69.06	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb006	Isolated Stream	Stream	Intermittent	69.07	PCR, SCR, FWP (N- Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sacb005	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.07	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Workspace Only	0.02	0.00/0.00	0.02
sacb005	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Open-cut	0.02	0.00/0.00	0.02
sacb004	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.60	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	7	Open-cut	0.02	0.00/0.00	0.02
sacb003	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	69.63	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sacb001	Ditch	Road Ditch	Ephemeral	70.07	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb029	Ditch	Road Ditch	Ephemeral	70.08	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
oacb001	Pond	Stock Pond	N/A ^e	70.18	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	0 ^f	Workspace Only	0.19	0.00/0.00	0.19
NHD_70 ^a	Unnamed	Stream or River	Intermittent	70.54	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
NHD_71 ^a	Bayou Barwick	Stream or River	Perennial	70.70	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sacb019	Ditch	Road Ditch	Ephemeral	71.10	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sacb017	Ditch	Road Ditch	Ephemeral	71.35	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003

<p>Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline</p>										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sacb018	Ditch	Road Ditch	Ephemeral	71.36	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
sacb015	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.002	0.00/0.00	0.002
sacb016	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.62	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Open-cut	0.002	0.00/0.00	0.002
sacc005	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.87	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sacc004	Unnamed Tributary to Bayou Barwick	Stream	Intermittent	71.95	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sacc002	Ditch	Ag Ditch	Intermittent	72.56	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
saca006	Ditch	Ag Ditch	Perennial	74.19	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.02	0.00/0.00	0.02
NHD_72 ^a	Unnamed	Stream or River	Intermittent	75.13	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.003	0.00/0.00	0.003
sevc018	Tiger Point Gully	Stream	Perennial	76.08	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	18	Open-cut	0.13	0.00/0.00	0.13
sevc011	Ditch	Road Ditch	Intermittent	77.58	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
sevc017	Ditch	Road Ditch	Intermittent	77.60	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.005	0.00/0.00	0.005

Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevc014	Ditch	Road Ditch	Intermittent	77.72	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevc015	Ditch	Road Ditch	Intermittent	77.72	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb048	Ditch	Road Ditch	Ephemeral	78.36	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb047	Ditch	Road Ditch	Ephemeral	78.37	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb046	Ditch	Road Ditch	Ephemeral	78.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb045	Ditch	Ditch	Intermittent	79.03	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	11	Open-cut	0.04	0.00/0.00	0.04
sevb044	Ditch	Road Ditch	Ephemeral	79.12	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sevb043	Ditch	Ag Ditch	Ephemeral	79.61	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	5	Open-cut	0.03	0.00/0.00	0.03
sevb042	Ditch	Road Ditch	Ephemeral	79.83	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva039	Ditch	Road Ditch	Ephemeral	79.84	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva037	Ditch	Road Ditch	Ephemeral	80.06	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva038	Ditch	Road Ditch	Intermittent	80.07	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva035	Unnamed Tributary to Bayou des Cannes	Stream	Perennial	80.48	PCR (N-Fecal), SCR, FWP (N-Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	8	Open-cut	0.02	0.00/0.00	0.02
seva036	Ditch	Ditch	Perennial	80.49	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
sevb041	Ditch	Road Ditch	Ephemeral	80.77	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb040	Ditch	Road Ditch	Ephemeral	80.78	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevc009	Ditch	Ag Ditch	Intermittent	81.26	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevc010	Ditch	Ag Ditch	Intermittent	81.27	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sevb038	Ditch	Road Ditch	Ephemeral	81.71	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb039	Ditch	Road Ditch	Ephemeral	81.71	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb034	Isolated Stream	Stream	Perennial	81.73	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	8	Open-cut	0.02	0.00/0.00	0.02

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb036	Ditch	Ditch	Ephemeral	81.75	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.005	0.00/0.00	0.005
sevb033	Isolated Stream	Stream	Perennial	82.51	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	10	Open-cut	0.03	0.00/0.00	0.03
sevb031	Ditch	Road Ditch	Ephemeral	82.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb032	Ditch	Road Ditch	Ephemeral	82.70	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb029	Ditch	Ag Ditch	Ephemeral	82.97	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
sevb030	Ditch	Ag Ditch	Ephemeral	83.20	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
sevb028	Ditch	Ag Ditch	Ephemeral	83.63	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevb027	Ditch	Ag Ditch	Intermittent	83.73	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	20	Open-cut	0.06	0.00/0.00	0.06
sevb026	Ditch	Ag Ditch	Ephemeral	83.82	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb020	Ditch	Road Ditch	Ephemeral	84.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb021	Ditch	Road Ditch	Ephemeral	84.11	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb049	Ditch	Road Ditch	Ephemeral	84.52	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb050	Ditch	Road Ditch	Ephemeral	84.53	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb051	Coulee Valentine	Stream	Intermittent	85.34	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	7	Open-cut	0.03	0.00/0.00	0.03
sevb053	Ditch	Road Ditch	Ephemeral	85.59	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb052	Ditch	Road Ditch	Ephemeral	85.60	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevb014	Ditch	Road Ditch	Ephemeral	86.08	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb015	Ditch	Road Ditch	Ephemeral	86.08	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
sevb012	Ditch	Ag Ditch	Ephemeral	86.30	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sevb011	Ditch	Road Ditch	Ephemeral	86.65	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.003	0.00/0.00	0.003
sevb010	Ditch	Ag Ditch	Perennial	86.88	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	10	Open-cut	0.02	0.00/0.00	0.02
sevb007	Ditch	Ag Ditch	Ephemeral	87.15	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.01	0.00/0.00	0.01
sevb008	Ditch	Road Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Open-cut	0.004	0.00/0.00	0.004
sevb009	Ditch	Road Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.002	0.00/0.00	0.002
sevb007	Ditch	Ag Ditch	Ephemeral	87.18	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	3	Workspace Only	0.01	0.00/0.00	0.01
sevb004	Ditch	Ag Ditch	Perennial	87.52	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	14	Open-cut	0.10	0.00/0.00	0.10
sevb003	Unnamed Tributary to Bayou des Cannes	Stream	Perennial	87.66	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
sevb001	Bayou des Cannes	Stream	Perennial	88.20	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	56	HDD	0.00	0.00/0.00	0.00
seva034	Ditch	Road Ditch	Ephemeral	88.49	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	7	HDD	0.00	0.00/0.00	0.00
seva031	Ditch	Road Ditch	Ephemeral	89.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva032	Ditch	Road Ditch	Ephemeral	89.33	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevy003	Ditch	Road Ditch	Ephemeral	90.15	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
sevy004	Ditch	Road Ditch	Intermittent	90.16	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	4	Open-cut	0.01	0.00/0.00	0.01
seva033	Ditch	Road Ditch	Ephemeral	90.96	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	6	Open-cut	0.02	0.00/0.00	0.02
seva026	Ditch	Road Ditch	Ephemeral	91.33	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva023	Ditch	Road Ditch	Ephemeral	91.71	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva024	Ditch	Road Ditch	Ephemeral	91.71	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	1	Open-cut	0.003	0.00/0.00	0.003
seva021	Ditch	Road Ditch	Ephemeral	92.14	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	14	Open-cut	0.02	0.00/0.00	0.02
seva022	Ditch	Road Ditch	Ephemeral	92.15	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
seva019	Ditch	Ag Ditch	Ephemeral	92.74	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
oeva003	Pond	Stock Pond	N/A ^e	92.83	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	0 ^f	Workspace Only	0.02	0.00/0.00	0.02
seva018	Ditch	Ag Ditch	Ephemeral	92.83	PCR, SCR, FWP (N-Hg, DO, PO ₄ , NO ₃ , NO ₂ , TDS, Turb), AGR	8	Open-cut	0.001	0.00/0.00	0.001

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva018	Ditch	Ag Ditch	Ephemeral	92.83	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	8	Open-cut	0.01	0.00/0.00	0.01
seva020	Ditch	Ag Ditch	Ephemeral	92.90	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Open-cut	0.01	0.00/0.00	0.01
seva015	Ditch	Road Ditch	Ephemeral	93.06	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva016	Ditch	Road Ditch	Ephemeral	93.06	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
sevy001	Unnamed Tributary to Bayou Marron	Road Ditch	Intermittent	93.42	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01
sevy002	Unnamed Tributary to Bayou Marron	Road Ditch	Ephemeral	93.43	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	5	Open-cut	0.01	0.00/0.00	0.01
oeva001	Pond	Impoundment	N/A ^e	93.77	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	0 ^f	Workspace Only	0.002	0.00/0.00	0.002
seva011	Unnamed Tributary to Bayou Marron	Stream	Intermittent	93.79	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	19	Open-cut	0.06	0.00/0.00	0.06
seva041	Ditch	Ag Ditch	Perennial	93.98	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	9	Open-cut	0.02	0.00/0.00	0.02
seva042	Ditch	Ag Ditch	Intermittent	94.10	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
seva043	Ditch	Ag Ditch	Intermittent	94.11	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.002	0.00/0.00	0.002
seva010	Ditch	Road Ditch	Perennial	94.31	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
seva009	Ditch	Road Ditch	Perennial	94.33	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	6	Open-cut	0.01	0.00/0.00	0.01
seva005	Unnamed Tributary to Bayou Marron	Stream	Perennial	94.55	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.004	0.00/0.00	0.004
seva004	Ditch	Road Ditch	Ephemeral	95.43	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
seva003	Ditch	Road Ditch	Intermittent	95.44	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	1	Open-cut	0.001	0.00/0.00	0.001
<i>Access Roads</i>										
sacb012	Ditch	Ditch	Ephemeral	PAR-11.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	3	Culvert	0.00	0.003/2.42	0.003
sacb013	Ditch	Ditch	Ephemeral	PAR-11.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	1	Culvert	0.00	0.003/2.42	0.003
sace002	Ditch	Ag Ditch	Ephemeral	PAR-12.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Culvert	0.00	0.003/2.42	0.003
sach001	Ditch	Ag Ditch	Ephemeral	PAR-13.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	4	Culvert	0.00	0.003/2.42	0.003
sevb044	Ditch	Road Ditch	Ephemeral	PAR-15.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, DO, TDS, Turb), AGR	3	Culvert	0.00	0.002/1.61	0.002
sevb050	Ditch	Road Ditch	Ephemeral	PAR-16.0	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.00	0.002/1.61	0.002
sevy005	Ditch	Ditch	Intermittent	PAR-17.0	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	4	Culvert	0.00	0.004/3.23	0.004

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
sjey011	Ditch	Ditch	Intermittent	TAR-37.4	PCR (N- Fecal), SCR, FWP (N- Pb, PO4, NO3, NO2, DO, Hg, Turb), AGR	2	Culvert	0.003	0.00/0.00	0.003
NHD_64 ^a	Unnamed	Stream or River	Intermittent	TAR-37.7	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_66 ^a	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_67 ^a	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_68 ^a	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
NHD_69 ^a	Unnamed	Stream or River	Intermittent	TAR-37.8	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
sevy006	Ditch	Ditch	Intermittent	TAR-39.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	6	Culvert	0.01	0.00/0.00	0.01
NHD_118	Unnamed	Ditch	Ephemeral	TAR-39.0	PCR, SCR, FWP (N-Hg, PO4, NO3, NO2, TDS, Turb), AGR	3	Culvert	0.003	0.00/0.00	0.003
NHD_74 ^a	Unnamed	Stream or River	Perennial	TAR-39.3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001

Table 4.3-4 Waterbodies Crossed or Otherwise Affected by the Pipeline										
Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
NHD_75 ^a	Unnamed	Stream or River	Intermittent	TAR-39.3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Culvert	0.002	0.00/0.00	0.002
NHD_76 ^a	Unnamed	Stream or River	Intermittent	TAR-40.1	PCR, SCR, FWP (N-Hg, DO, PO4, NO3, NO2, TDS, Turb), AGR	2	Culvert	0.001	0.00/0.00	0.001
<i>Contractor/Pipe Yards</i>										
NHD_63 ^a	Unnamed	Stream or River	Intermittent	Contractor Yard 3	PCR (N-Fecal), SCR, FWP (N- Pb, Hg, DO, PO4, NO3, NO2, Turb), AGR	2	Workspace Only	0.02	0.00/0.00	0.02
<i>Aboveground Facilities</i>										
sacb015	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.51	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	3	N/A ^d	0.01	0.00/0.00	0.01
sacb015 ^j	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.51	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	3	N/A ^d	0.07	0.00/0.00	0.07
sacb016	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.52	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	4	N/A ^d	0.01	0.00/0.00	0.01
sacb016 ^j	Unnamed Tributary to Bayou Barwick	Stream	Ephemeral	71.52	PCR, SCR, FWP (N-Hg, NO2, NO3, DO, PO4, TDS, Turb), AGR	4	N/A ^d	0.02	0.00/0.00	0.02

N/A = not applicable

^a Feature delineated utilizing a desktop analysis. For desktop features in which a clear channel is not evident based on aerial imager, a waterbody width of 2 feet was assumed.

^b Feature is crossed by an access road or contractor yard, but is not crossed by the pipeline centerline.

^c Feature is located within the Project workspace, but is not crossed by the pipeline centerline.

^d Feature is located within the footprint of an aboveground facility, but is not crossed by the pipeline centerline.

^e Feature is open water and does not have a flow regime.

^f Feature is open water and does not have an ordinary high water mark.

^g **State Water Quality Designated Use Description Classifications:**

PCR = Primary Contact Recreation (swimming)

SCR = Secondary Contact Recreate (boating)

FWP = Fish and Wildlife Propagation (fishing)

DWS = Drinking Water Supply

ONR = Outstanding Natural Resource

OYS = Oyster Propagation

AGR = Agriculture

None = No 305b Assessment by LDEQ

^h Based on correspondence with LDWF (Reed, 2017).

ⁱ Waterbody is crossed by the 3.4-mile lateral in addition to the main pipeline route.

^j Waterbody is located within the permanent footprint of the CS 02 (Basile Station); however, all impacts to the waterbody will be temporary as it will be returned to pre-construction contours upon completion of construction.

Use Support Codes for Designated Uses:

N = Not supporting designated use

I = Insufficient data to make reliable determination

X = No data

**Table 4.3-4
Waterbodies Crossed or Otherwise Affected by the Pipeline**

Feature ID	Waterbody Name	Feature Type	Flow Regime	Approximate Milepost	Water Quality Classification ^g	Crossing Length at OHWM (feet)	Crossing Method	Temporary Impacts (acres)	Permanent Impacts (fill) (acres/cubic yards)	Total Impacts (acres)
Note: Waterbody crossing assessments based upon LDEQ 2016c.										
<u>Suspected Impairment Cause:</u>										
Fecal Coliforms (Fecal)		Nitrite (NO ₂)								
Total Dissolved Solids (TDS)		Nitrate (NO ₃)								
Mercury (Hg)		Phosphorous (PO ₄)								
Dissolved Oxygen (DO)		Polychlorinated biphenyls (PCB)								
Sulfates (SO ₄)		Tetrachloroethane (TCE)								
Color Chlorides (Cl)		Bromoform (Br)								
Lead (Pb)		Hexachlorobenzene (HCBz)								
Turbidity (Turb)		Hexachlorbutadiene (HCBu)								

Table 4.14-2										
Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts										
Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Approximate Size of Project ^c (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014) (1)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline.	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch-diameter pipeline.	Construction: 7,045 (peak) Operation: 130	823.6		F		
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline.	Construction: 2019 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility.	Construction: 1,500 jobs (peak) Operation: 190	129	F, P	F		
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9.	Construction: 2019 Operation 2019-2020	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	Liquefaction Facility - Construction: 5,600 (peak) Operation: 176. Non-Liquefaction Facilities – Construction: 90 (Compressor Stations); 260 (Pipelines) Operation: 8	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	F, P	P	P	
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline.	Construction: Information Unavailable Operation: 2023/2024	New LNG facility	Construction: 2,000 Operation: 200	246	F			
Commonwealth LNG Project (formerly Waller LNG)(Commonwealth LNG, LLC) (6) (Commonwealth LNG, LLC. 2017)	Industrial Project	Cameron F: 21.9 miles south of Facility. P: 23.2 miles south of Pipeline.	Construction: 2019 Operation: 2024	New LNG facility	Construction: 700 Operation: 100-200	132.6	F			
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline.	Construction: 2019 Operation: 2022	New LNG facility and 23.4-mile pipeline	Construction: 1,610 (peak) Operation: 130	Calcasieu Pass Terminal and TransCameron Pipeline Project: 464.6 ^f	F			
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline.	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	Construction: 2,000 (peak) Operation: 265	250	P			
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Const: 2016 Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	Information Unavailable	Substations: --. T-Lines: 303.0 ^d	F, P			

Table 4.14-2 Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts										
Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Approximate Size of Project ^c (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Golden Nugget (12)	Industrial Projects	Calcasieu F: 8 miles northeast. P: 7.6 miles east	Construction: 2016 Operation: 2017	Casino Resort Expansion	Construction: Information Unavailable Operation: 100	1	F			
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: 2016 Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	Construction: 600 (peak) Operation: 125	250	F, P			
York Capital (formerly Juniper GTL)(14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: 2016 Operation: 2017	Natural gas to liquids plant (refurbish)	Construction: 125 Operation: 29	Information Unavailable	F			
Lake Charles Memorial Health System (15)	Industrial Projects	Calcasieu F: 10.5 miles northeast. P: 8.9 miles southeast	Construction: 2017-2019; Operation: New intensive care unit (ICU) and expanded emergency room (ER) are currently in operation	Health system facility – expand emergency services, renovate existing ICU and add new ICU, add new medical office building	Information Unavailable	ICU 0.3, ER 0.5	F			
McNeese State University (18)	Industrial Projects	Calcasieu F: 8.6 miles. P: 9.6 miles	Construction: Various projects complete or deferred	University – construction and renovations	Information Unavailable	Information Unavailable	F, P			
Port of Lake Charles Calcasieu Ship Channel (19)	Industrial Projects	Calcasieu F: 8.9 miles northeast of Facility. P: 6.8 miles south of Pipeline.	Operation: 2018-2019	Port – rebuild wharf and storage facility, new administrative building, and other capital improvements	Information Unavailable	Information Unavailable	F			
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline.	Ethane Cracker Complex: Construction: 2015 Operation 2019	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants .	Construction: 6,000 Operation: 1,000	3,034	F			
Sowela Technical Community College (21)	Industrial Projects	Calcasieu F: 12.6 miles northeast Facility. P: 9.8 miles southeast Pipeline.	Construction 2014-2018; Operation 2017-2018	Community College – new Regional Training Facility, new Sycamore Student Center	Information Unavailable	2.0	F			
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the Facility. P: 3.66 miles east of the Pipeline.	Construction: 2018; Operation: 2018	Approximately 163 miles of new 24-inch diameter crude oil pipeline	Construction: 2,500 Operation: 12	2,016.68	F, P			
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the Facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline and compressor station.	Construction: 200 Operation: 3	560.1	F	F		
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the Facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: 2018 Operation: 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch- diameter pipeline, and 700 feet of 24-inch- diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	Construction: 250 Operation: 2	81.03	P	P	P	
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the Facility. P: Potentially collocated at various locations between MP 5.6 and 16.2.	Const: 2021 Operation: 2024	Approximately 130.8 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	Construction: 600 Operation: 10	Construction: 2,807; Operation: 771 ⁹	F, P	P	P	

Table 4.14-2										
Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts										
Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Approximate Size of Project ^c (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Belle Savanne (31) (USACE 2013c)	Housing Developments	Calcasieu F: 7.2 miles north of Facility. P: 1.1 miles east of Pipeline	Construction: Spring 2017 (Phase II)	Homes and commercial spaces	Information Unavailable	200	P	P		
Berdon – Campbell Building Lofts (32)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles southeast of Pipeline	2018	Loft community in formerly vacant building	Information Unavailable	Approx. 0.5 ^e	F			
Bridalwood Country Estates (33)	Housing Developments	Calcasieu F: 21.8 miles northeast of Facility. P: 1.2 miles north of Pipeline	Information Unavailable	Development of residential homes	Information Unavailable	Information Unavailable	P			
Charleston Point (34)	Housing Developments	Calcasieu F: 10.6 miles northeast of Facility. P: 7.1 miles northwest of Pipeline	Construction: Present Operation: Information Unavailable	Townhome development in Downtown Lake Charles	Information Unavailable	1.9	F			
Chateau Ridge Subdivision (35)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 0.6 miles northeast of Pipeline	Construction: Present Operation: Information Unavailable	38 lot family residential development	Information Unavailable	10	P	P		
Coffey Pines (36)	Housing Developments	Calcasieu F: 17.4 miles northeast of Facility. P: 1.0-mile northwest of Pipeline	Construction: 2011 (Phase I); 2009 (Phase II) Operation: 2014 (Phase I); 2016 (Phase II)	Residential development	Information Unavailable	37.5	P	P		
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	Information Unavailable	12.3	P	P		
Ella Lane Subdivision (38)	Housing Developments	Calcasieu F: 16 miles northeast of Facility. P: 2.5 miles northwest of Pipeline	Information Unavailable	Commercial and residential zoned property	Information Unavailable	3.67	P			
Elm Street Apartment Complex (39)	Housing Developments	Calcasieu F: 9.9 miles northeast of Facility. P: 7.7 miles northwest of Pipeline	Construction: Complete	Residential complex	Information Unavailable	Approx. 1.2	F			
La Bordeaux Subdivision (40)	Housing Developments	Calcasieu F: 15.2 miles southwest of Facility. P: 3.9 miles west of Pipeline	Information Unavailable	14 unit subdivision	Information Unavailable	5.3	P			
McMillin Place Subdivision (42)	Housing Developments	Calcasieu F: 16.2 miles southwest of Facility. P: 1.5 miles west of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	Information Unavailable	P			
Oak Creek Village Subdivision (43) (USACE 2016b)	Housing Developments	Calcasieu F: 6.9 miles southeast of Facility. P: 1.9 miles west of Pipeline	Construction: Present Operation: Information Unavailable	120 lot subdivision	Information Unavailable	36	P			
Pentangeli Row Subdivision (44)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 1.3 miles north of Pipeline	Information Unavailable	48 lot subdivision for single family residential use	Unknown	14.3	P			
River Trace Phase II Subdivision (45)	Housing Developments	Calcasieu F: 14.0 miles southwest of Facility. P: 2.0 miles northwest of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	8.6	P			
Sears Building/New Downtown District Facility (46)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles Southeast of Pipeline	Construction: Estimated December 2016 Operation: Estimated 15 Months from Construction Date	Former retail site to be converted into downtown district (residential units and commercial properties)	Information Unavailable	3.5	F			

Table 4.14-2										
Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts										
Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Approximate Size of Project ^c (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Shady Oaks Subdivision (47)	Housing Developments	Calcasieu F: 14.2 miles north of Facility. P: 0.9 miles north of Pipeline	Information Unavailable	Residential development	Information Unavailable	Information Unavailable	P	P		
Shadows at Bayou Oaks (48)	Housing Developments	Calcasieu F: 6.7 miles northwest of Facility. P: 1.9 miles West	Information Unavailable	Residential development	Information Unavailable	55 ^e	F, P			
Sutherland Subdivision (50)	Housing Developments	Calcasieu F: 15.1 miles northeast Facility. P: 1.7 miles east of Pipeline	Information Unavailable	3 Phase residential development	Information Unavailable	31	P			
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	Information Unavailable	16.46	F, P	P		
Terre Sainte (52)	Housing Developments	Calcasieu F: 9.1 miles northeast of Facility. P: 7.3 miles southeast of Pipeline	Information Unavailable	92 lot residential development	Information Unavailable	27.33 ^e	F			
The Isles (53)	Housing Developments	Calcasieu F: 6.0 miles northeast of Facility. P: 7.6 miles east of Pipeline	Information Unavailable	64 duplex homes	Information Unavailable	Information Unavailable	F, P			
Walnut Grove Development (54)	Housing Developments	Calcasieu F: 9.0 miles northeast of Facility. P: 8.8 miles east of Pipeline	Construction: November 2013-2020 Operation: 2020	60 acre commercial and residential development	Information Unavailable	60	F			
West End (55)	Housing Developments	Calcasieu F: 13.9 miles northwest of Facility. P: 1.9 miles west of Pipeline	Information Unavailable	105 units residential development	Information Unavailable	120	P		F, P	
Willow Brook (56)	Housing Developments	Calcasieu F: 4.7 miles northeast of Facility. P: 4.8 miles northeast of Pipeline	Information Unavailable	Residential development 138 single family homes	Information Unavailable	30	F, P			
Morgan Field (60)	Commercial Developments	Calcasieu F: 11.5 miles northeast of Facility. P: 11.9 miles southeast of Pipeline	Construction: Present Operation: Information Unavailable	Master Planned Community – Residential (700 lots) and retail commercial development	Information Unavailable	277.4	F			
Louisiana 384 (61)	Infrastructure Developments	Calcasieu F: 2.9 miles northeast of Facility. P: 3.9 miles northeast of Pipeline	August 2016 – February 2017	Closed lane	Information Unavailable	24.2 ^{d, e}	F, P			
U.S. 171 (b) (63)	Infrastructure Developments	Calcasieu F: 21.1 miles northeast of Facility. P: 2.7 miles north of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	6.8 ^d	P			
U.S. 165 (64)	Infrastructure Developments	Jefferson Davis F: 27.8 miles northeast of Facility. P: 5.9 miles southeast of Pipeline	2016-2018	New location/replacement bridge	Information Unavailable	87.4 ^d	P			
Interstate 10 (65)	Infrastructure Developments	Calcasieu F: 10.4 miles northeast of Facility. P: 5.6 miles southeast of Pipeline	2016	Bridge reconditioning	Information Unavailable	75.2 ^d	F			
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	Information Unavailable	6.2	F, P	F, P	F, P	F, P

Table 4.14-2										
Descriptions of Other Projects Summarized in Table 4.14-3 in the Resource-specific Geographic Scopes Crossed by the Project Considered for Cumulative Impacts										
Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Approximate Size of Project ^c (Acres)	Cumulative Impact Association			
							Groundwater, Surface Water, Wetlands, Vegetation, Wildlife	Land Use, Recreation, and Visual Resources	Cultural Resources	Noise
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2022	Addition of one new 230 kV substation (Big Lake) and approximately 5.6 and 5.0 miles of new 230 kv electric transmission lines.	Information Unavailable	Approx. 333	F, P	F, P	F, P	F, P
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	Information Unavailable	0.8	F, P	F, P	F	F, P
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies.	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	Information Unavailable	Information Unavailable	F, P	F, P		F, P
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	Information Unavailable	Information Unavailable	F, P	F, P		F, P
Olsen Road /. Highway 27 connector (71)	Transportation, Port, and Road Improvements	Calcasieu F: 0.4 miles north of Facility. P: 0.25 miles northeast of Pipeline	2018	Additional 0.0.5 mile to connect Olson Road and Hwy 27 for residents of the Driftwood community.	Information Unavailable	2.0	F, P	F, P		P
Citadel Completions (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	2018	Aircraft Maintenance Center	Operation: 256	2.7	F			
^a Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.										
^b Based upon readily available public information.										
^c Estimated acreage is based information provided in publicly available project information.										
^d Estimated acreage is based on an assumed 100-foot-wide construction corridor.										
^e Estimated acreage based on information provided in publicly available project mapping.										
^f Project size is inclusive of the total facility site, offsite construction support facilities (at the former Liberty Services/DeHyCo Services/Martin Midstream Services Facility), and the TransCameron Pipeline.										
^g Project size is for the Louisiana Connector Project which is located in the cumulative area for the Project. The entire Port Arthur Project including all facilities in Louisiana and Texas is 10, 611.7 acres.										

Table 4.14-3				
Resources Affected by Other Projects in the HUC-12 Watersheds Crossed by the Project Considered for Cumulative Impacts				
Project (Project Proponent) (No. on Map)	Approximate Size of Project ^a (Acres)	Impacts on Forest (acres)	Impacts on Wetlands (acres)	Impacts on Waterbodies (number crossed)
Bayou Arceneaux				
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 ^b	253.3 ^b	120 ^b
U.S. 165 (64)	87.4 ^d	NA	NA	NA
Bayou Choupique				
Entergy Louisiana (11)	Substations: --. T-Lines: 303.0 ^d	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Shadows at Bayou Oaks (48)	55 ^e	NA	NA	NA
Taylor Estates Subdivision (51)	16.46	NA	NA	NA
Williams Pipeline Relocation (66)	6.2	0.0 ^c	0.0 ^c	0.0 ^c
Entergy Facility Transmission Line (67)	Approx. 333	NA	NA	NA
Highway 27 Improvements (69)	NA	NA	NA	NA
Burton Shipyard Road Improvements (70)	NA	NA	NA	NA
Bayou Duralde-Bayou Nezpique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Bayou Marron-Bayou Des Cannes				
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	81.03	0.0	0.2 ^b	12 ^b
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Bayou Verdine-Calcasieu River				
Golden Nugget (12)	1	NA	NA	NA
York Capital (formerly Juniper GTL)(14)	NA	NA	NA	NA
McNeese State University (18)	NA	NA	NA	NA
Port of Lake Charles Calcasieu Ship Channel (19)	NA	NA	NA	NA
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	3,034	NA	743.3	NA
Berdon – Campbell Building Lofts (32)	Approx. 0.5 ^e	NA	NA	NA
Charleston Point (34)	1.9	NA	NA	NA
Elm Street Apartment Complex (39)	Approx. 1.2	NA	NA	NA
Sears Building/New Downtown District Facility (46)	3.5	NA	NA	NA
Terre Sainte (52)	27.33 ^e	NA	NA	NA
Walnut Grove Development (54)	60	NA	NA	NA
Interstate 10 (65)	75.2 ^d	NA	NA	NA
Calcasieu Lake- Calcasieu Pass				
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	560.1	9.7	63.8	102
Monkey Island LNG Project (formerly SCT&E LNG Project (SCT&E LNG) (5)	246	NA	NA	NA
Commonwealth LNG Project (6) (Commonwealth LNG, LLC. 2017)	132.6	NA	109.7	NA
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Calcasieu Pass Terminal and TransCameron Pipeline Project: 464.6 ^f	0.0	455.3 ^b	76
Calcasieu River- Prien Lake				
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016) (USACE 2016)	2,016.68	NA	454	NA
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	129	34.0	15.0	10
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 ^b	253.3 ^b	120 ^b
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 ^d	NA	NA	NA
Indorama Ventures (13)	250	NA	NA	NA
The Isles (53)	NA	NA	NA	NA
Willow Brook (56)	30	NA	NA	NA
Louisiana 384 (61)	24.2 ^{d,e}	NA	NA	NA
Williams Pipeline Relocation (66)	6.2	0.0 ^c	0.0 ^c	0.0 ^c
Bollinger Shipyard Access Road (68)	0.8	NA	NA	NA
Highway 27 Improvements (69)	NA	NA	NA	NA
Olsen Road /. Highway 27 connector (71)	2.0	NA	NA	NA
Dry Slough-Bayou Nezpique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Houston River Canal				
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 ^d	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
West End (55)	120	NA	NA	NA
Indian Bayou				
Chateau Ridge Subdivision (35)	10	NA	NA	NA
Ella Lane Subdivision (38)	3.67	NA	NA	NA
McMillin Place Subdivision (42)	NA	NA	NA	NA
Sutherland Subdivision (50)	31	NA	NA	NA
Kayouche Coulee				
Citadel Completions (AAR) (8)	2.7	NA	NA	NA
Lake Charles Memorial Health System (15)	0.8	NA	NA	NA
Sowela Technical Community College (21)	2.0	NA	NA	NA
Morgan Field (60)	277.4	NA	NA	NA
Little Indian Bayou				
Bridalwoods Country Estates (33)	NA	NA	NA	NA
Coffey Pines (36)	37.5	NA	NA	NA
Dreamview Estate Phase III (37) (FERC 2015b)	12.3	NA	2.6	NA

Table 4.14-3				
Resources Affected by Other Projects in the HUC-12 Watersheds Crossed by the Project Considered for Cumulative Impacts				
Project (Project Proponent) (No. on Map)	Approximate Size of Project ^a (Acres)	Impacts on Forest (acres)	Impacts on Wetlands (acres)	Impacts on Waterbodies (number crossed)
Pentangeli Row Subdivision (44)	14.3	NA	NA	NA
U.S. 171 (b) (63)	6.8 ^d	NA	NA	NA
Little River				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Shady Oaks Subdivision (47)	NA	NA	NA	NA
Lower Bayou Serpent				
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	LNG Facility, Terminal and ACWs: 785. Non-Liquefaction Facilities: 731.3	314.7 ^b	253.3 ^b	120 ^b
U.S. 165 (64)	87.4 ^d	NA	NA	NA
Maple Fork- Bayou D'Inde				
Highway 27 Improvements (69)	NA	NA	NA	NA
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 ^d	NA	NA	NA
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project(Lotte Corporation / Axiall Corporation) (9)	250	NA	NA	NA
Belle Savanne (31) (USACE 2013c)	200	NA	17.6	NA
Oak Creek Village Subdivision (43) (USACE 2016b)	36	NA	20.9	NA
Moss Gully-West Fork Calcasieu River				
La Bordeaux Subdivision (40)	5.3	NA	NA	NA
River Trace Phase II Subdivision (45)	8.6	NA	NA	NA
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	81.03	0.0	0.2 ^b	12 ^b
Richards Lake-Houston River				
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 ^d	NA	NA	NA
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Wing Gully- Bayou Choupique				
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	2,807 ^g	328.2 ^b	636.2 ^b	NA
Entergy Louisiana (11)	Substations: NA. Transmission Lines: 303.0 ^d	NA	NA	NA
Entergy Facility Transmission Line (67)	Approx. 333	NA	NA	NA
Total Cumulative Impact	11,979.0	686.6	2,648.8	464.0
<p>^a Estimated acreage is based on an assumed 100-foot-wide construction corridor.</p> <p>^b Publicly available information did not analyze project impacts by watershed, so the total project impact on this resource is shown in the entry for each watershed but included only once in the Total Cumulative Impact.</p> <p>^c Project is within the LNG Facility Site; impacts would not contribute to cumulative impacts.</p> <p>^d Estimated acreage is based on an assumed 100-foot-wide construction corridor.</p> <p>^e Estimated acreage based on information provided in publicly available project mapping.</p> <p>^f Project size is inclusive of the total facility site, offsite construction support facilities (at the former Liberty Services/DeHyCo Services/Martin Midstream Services Facility), and the TransCameron Pipeline.</p> <p>^g Project size is for the Louisiana Connector Project which is located in the cumulative area for the Project. The entire Port Arthur Project including all facilities in Louisiana and Texas is 10, 611.7 acres.</p> <p>NA Information was not publicly available.</p>				

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch-diameter pipeline.	Construction: 7045 (peak) Operation: 130	F, P
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline	Construction: 2019 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility	Construction: 542 jobs (peak) Operation: 190	F, P
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9	Construction: 2019 Operation 2019-2020	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	Liquefaction Facility - Construction: 5,600 (peak) Operation: 176	F, P
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline	Construction: Information Unavailable Operation: 2023/2024	New LNG facility	Construction: 2,000 Operation: 200	F, P
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline	Construction: 2019 Operation: 2022	New LNG facility and 23.4-mile pipeline	Construction: 1,610 (peak) Operation: 130	
Citadel Completions (AAR) (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	2018	Aircraft Maintenance Center	Operation: 256	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project (Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	Construction: 2,000 (peak) Operation: 265	F, P
Dongsung FineTec (Dongsung FineTec Co. Ltd.) (10)	Industrial Projects	Calcasieu F: 13 miles northeast of the Facility. P: 10.0 miles south of Pipeline	Construction: 2017 Operation: 2020	Cryogenic insulation production facility	Construction: 20 Operation: 200	F, P
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Const: 2016. Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	Information Unavailable	F, P
Golden Nugget (12)	Industrial Projects	Calcasieu F: 8 miles northeast. P: 7.6 miles east	Construction: 2016 Operation: 2017	Casino Resort Expansion	Construction: Information Unavailable Operation: 100	F, P
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: 2016 Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	Construction: 600 (peak) Operation: 125	F, P
York Capital (formerly Juniper GTL) (14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: 2016 Operation: 2017	Natural gas to liquids plant (refurbish)	Construction: 125 Operation: 29	F, P
Lake Charles Memorial Health System (15)	Industrial Projects	Calcasieu F: 10.5 miles northeast. P: 8.9 miles southeast	Construction: 2017-2019; Operation: New ICU and expanded ER are currently in operation	Health system facility – expand emergency services, renovate existing ICU and add new ICU, add new medical office building	ICU 0.3, ER 0.5	F, P
Lake Charles Memorial Health System (16)	Industrial Projects	Calcasieu F: 5.6 miles northeast. P: 6.9 miles northeast	Construction: 2016 (Phase 1); Information Unavailable (Phase 2 & 3) Operation: 2017 (Phase 1); Information Unavailable (Phase 2 & 3)	Behavioral health hospital. Construction will consist of three phases.	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Lake Charles Regional Airport (17)	Industrial Projects	Calcasieu F: 6.7 miles east. P: 8 miles east	Construction: Present Operation: expected to be complete in 90 days.	Airport – runway rehabilitation	Information Unavailable	F, P
McNeese State University (18)	Industrial Projects	Calcasieu F: 8.6 miles. P: 9.6 miles	Construction: Various projects complete or deferred	University – construction and renovations	Information Unavailable	F, P
Port of Lake Charles Calcasieu Ship Channel (19)	Industrial Projects	Calcasieu F: 8.9 miles northeast of Facility.	Operation: 2018-2019	Port – rebuild wharf and storage facility, new administrative building, and other capital improvements	Information Unavailable	F, P
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline	Ethane Cracker Complex: Construction: 2015 Operation 2019	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants.	Construction: 6,000 Operation: 1,000	F, P
Sowela Technical Community College (21)	Industrial Projects	Calcasieu F: 12.6 miles northeast Facility. P: 9.8 miles southeast Pipeline	Construction 2014-2018; Operation 2017-2018	Community College – new Regional Training Facility, new Sycamore Student Center	2.0	F, P
Crowley-Rayne Industrial Park (22)	Industrial Projects	Acadia F: 61.9 miles east of Facility. P: 20.4 miles southeast of Pipeline	Currently in operation. Acreage still to be developed	Land for both commercial and industrial developments. Located off of Hwy. 90 just west of Rayne	Information Unavailable	P
Freeland Site (23)	Industrial Projects	Acadia F: 54.8 miles east of Facility. P: 16.4 miles southeast of Pipeline	Information Unavailable	536 acre state certified development ready site	Information Unavailable	P
Evangeline Ward 1 Industrial Park Expansion (24)	Industrial Projects	Evangeline F: 76.3 miles northeast of Facility. P: 6.8 miles north of Pipeline	Construction: Present Operation: Information Unavailable	96.5 acre state certified site located north of Ville Plat, houses Ville Platt Iron Works and Cameron Valves (Cameron Ironworks – merger, company focused on production of oil and gas tools and machinery)	Information Unavailable	P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the facility. P: 3.66 miles east of the Pipeline.	Construction: 2018 Operation: 2018	Approximately 163 miles of new 24-inch diameter crude oil pipeline	Construction: 2,500 Operation: 12	F, P
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline and compressor station.	Construction: 200 Operation: 3	F, P
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: 2018 Operation: 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch-diameter pipeline, and 700 feet of 24-inch-diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	Construction: 250 Operation: 2	P
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the facility. P: Potentially collocated at various locations between MP 82.0 and 95.9	Const: 2021 Operation: 2024	Approximately 130.8 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	Construction: 600 Operation: 10	F, P
Audubon Trace Subdivision (29)	Housing Developments	Calcasieu F: 17.0 miles northeast of Facility. P: 3.6 miles south of Pipeline	Information Unavailable	182 single-family residential development	Information Unavailable	F, P
Beau Blanc Subdivision (30)	Housing Developments	Calcasieu F: 9.2 miles northeast of Facility. P: 11.0 miles southeast of Pipeline	Present (lots available)	Community in Lake Charles, 238 lots	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Belle Savanne (31) (USACE 2013c)	Housing Developments	Calcasieu F: 7.2 miles north of Facility. P: 1.1 miles east of Pipeline	Construction: Spring 2017 (Phase II)	Homes and commercial spaces	Information Unavailable	F, P
Berdon – Campbell Building Lofts (32)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles southeast of Pipeline	2018	Loft community in formerly vacant building	Information Unavailable	F, P
Bridalwoods Country Estates (33)	Housing Developments	Calcasieu F: 21.8 miles northeast of Facility. P: 1.2 miles north of Pipeline	Information Unavailable	Development of residential homes	Information Unavailable	F, P
Charleston Point (34)	Housing Developments	Calcasieu F: 10.6 miles northeast of Facility. P: 7.1 miles northwest of Pipeline	Construction: Present Operation: Information Unavailable	Townhome development in Downtown Lake Charles	Information Unavailable	F, P
Chateau Ridge Subdivision (35)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 0.6 miles northeast of Pipeline	Construction: Present Operation: Information Unavailable	38 lot family residential development	10	F, P
Coffey Pines (36)	Housing Developments	Calcasieu F: 17.4 miles northeast of Facility. P: 1.0-mile northwest of Pipeline	Construction: 2011 (Phase I); 2009 (Phase II) Operation: 2014 (Phase I); 2016 (Phase II)	Residential development	Information Unavailable	F, P
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	Information Unavailable	F, P
Ella Lane Subdivision (38)	Housing Developments	Calcasieu F: 16 miles northeast of Facility. P: 2.5 miles northwest of Pipeline	Information Unavailable	Commercial and residential zoned property	Information Unavailable	F, P
Elm Street Apartment Complex (39)	Housing Developments	Calcasieu F: 9.9 miles northeast of Facility. P: 7.7 miles northwest of Pipeline	Construction: Complete	Residential complex	Information Unavailable	F, P
La Bordeaux Subdivision (40)	Housing Developments	Calcasieu F: 15.2 miles southwest of Facility. P: 3.9 miles west of Pipeline	Information Unavailable	14 unit subdivision	Information Unavailable	F, P
LAC Development (41)	Housing Developments	Calcasieu F: 17.1 miles northeast of Facility. P: 3.5 miles northwest of Pipeline	Information Unavailable	Located within Audubon Trace development, will contain 17 units	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
McMillin Place Subdivision (42)	Housing Developments	Calcasieu F: 16.2 miles southwest of Facility. P: 1.5 miles west of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	F, P
Oak Creek Village Subdivision (43) (USACE 2016b)	Housing Developments	Calcasieu F: 6.9 miles southeast of Facility. P: 1.9 miles west of Pipeline	Construction: Present Operation: Information Unavailable	120 lot subdivision	Information Unavailable	F, P
Pentangeli Row Subdivision (44)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 1.3 miles north of Pipeline	Information Unavailable	48 lot subdivision for single family residential use	Unknown	F, P
River Trace Phase II Subdivision (45)	Housing Developments	Calcasieu F: 14.0 miles southwest of Facility. P: 2.0 miles northwest of Pipeline	Information Unavailable	22 lot residential development	Information Unavailable	F, P
Sears Building/New Downtown District Facility (46)	Housing Developments	Calcasieu F: 11.0 miles northeast of Facility. P: 6.8 miles Southeast of Pipeline	Construction: Estimated December 2016 Operation: Estimated 15 Months from Construction Date	Former retail site to be converted into downtown district (residential units and commercial properties)	Information Unavailable	F, P
Shady Oaks Subdivision (47)	Housing Developments	Calcasieu F: 14.2 miles north of Facility. P: 0.9 miles north of Pipeline	Information Unavailable	Residential development	Information Unavailable	F, P
Shadows at Bayou Oaks (48)	Housing Developments	Calcasieu F: 6.7 miles northwest of Facility. P: 1.9 miles West	Information Unavailable	Residential development	Information Unavailable	F, P
Sugarcane Subdivision (49)	Housing Developments	Calcasieu F: 19.3 miles northeast of Facility. P: 9.2 miles south of Pipeline	Information Unavailable	179 acres residential development with over 600 single family and multifamily homes	Information Unavailable	F, P
Sutherland Subdivision (50)	Housing Developments	Calcasieu F: 15.1 miles northeast Facility. P: 1.7 miles east of Pipeline	Information Unavailable	3 Phase residential development	Information Unavailable	F, P
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
Terre Sainte (52)	Housing Developments	Calcasieu F: 9.1 miles northeast of Facility. P: 7.3 miles southeast of Pipeline	Information Unavailable	92 lot residential development	Information Unavailable	F, P
The Isles (53)	Housing Developments	Calcasieu F: 6.0 miles northeast of Facility. P: 7.6 miles east of Pipeline	Information Unavailable	64 duplex homes	Information Unavailable	F, P
Walnut Grove Development (54)	Housing Developments	Calcasieu F: 9.0 miles northeast of Facility. P: 8.8 miles east of Pipeline	Construction: November 2013-2020 Operation: 2020	60 acre commercial and residential development	Information Unavailable	F, P
West End (55)	Housing Developments	Calcasieu F: 13.9 miles northwest of Facility. P: 1.9 miles west of Pipeline	Information Unavailable	105 units residential development	Information Unavailable	F, P
Willow Brook (56)	Housing Developments	Calcasieu F: 4.7 miles northeast of Facility. P: 4.8 miles northeast of Pipeline	Information Unavailable	Residential development 138 single family homes	Information Unavailable	F, P
Wisteria Vine, Phase 3 Subdivision (57)	Housing Developments	Calcasieu F: 17 miles northeast of Facility. P: 3.1 miles north of Pipeline	Information Unavailable	63 lots for residential homes	Information Unavailable	F, P
Grand View (Derrick Development) (59)	Commercial Developments	Acadia F: 58.2 miles northeast of Facility. P: 17.9 miles southeast of Pipeline	Construction: April 2017	80 acre multi-use development. Frontage road (service road) to be constructed along interstate and through property	Information Unavailable	P
Morgan Field (60)	Commercial Developments	Calcasieu F: 11.5 miles northeast of Facility. P: 11.9 miles southeast of Pipeline	Construction: Present Operation: Information Unavailable	Master Planned Community – Residential (700 lots) and retail commercial development	Information Unavailable	F, P
Louisiana 384(61)	Infrastructure Developments	Calcasieu F: 2.9 miles northeast of Facility. P: 3.9 miles northeast of Pipeline	August 2016 – February 2017	Closed lane	Information Unavailable	F, P
U.S. 171 (a)(62)	Infrastructure Developments	Calcasieu F: 16.5 miles northeast of Facility. P: 3.3 miles south of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	F, P
U.S. 171 (b)(63)	Infrastructure Developments	Calcasieu F: 21.1 miles northeast of Facility. P: 2.7 miles north of Pipeline	2016-2017	Traffic flow improvements	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
U.S. 165 (64)	Infrastructure Developments	Jefferson Davis F: 27.8 miles northeast of Facility. P: 5.9 miles southeast of Pipeline	2016-2018	New location/replacement bridge	Information Unavailable	P
Interstate 10 (65)	Infrastructure Developments	Calcasieu F: 10.4 miles northeast of Facility. P: 5.6 miles southeast of Pipeline	2016	Bridge reconditioning	Information Unavailable	F, P
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	Information Unavailable	F, P
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2022	Addition of one new 230 kV substation (Big Lake) and approximately 5.6 and 5.0 miles of new 230 kv electric transmission lines.	Information Unavailable	P
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	Information Unavailable	F, P
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	Information Unavailable	F, P
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	Information Unavailable	F, P
Olsen Road / . Highway 27 connector (71)	Transportation, Port, and Road Improvements	Calcasieu F: 0.96 miles north of Facility. P: 0.49 miles northeast of Pipeline	2018	Additional 0.5 mile to connect Olson Road and to provide direct access to Hwy 27 for residents of the Driftwood community.	Information Unavailable	F, P

Table 4.14-4

Other Projects in the Socioeconomics Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Workforce	Socioeconomics Cumulative Impact Association (Facility: F, Pipeline P)
^a Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.						
^b Based upon readily available public information.						

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Cameron LNG Project (Cameron LNG Holdings, LLC) (1) (FERC 2014)	Industrial Projects	Cameron and Calcasieu F: 2.0 miles south of the Facility. P: 4.5 miles south of Pipeline	Construction: Present Operation: 2019	Expansion of the existing LNG facility to include 3 additional liquefaction trains, 1 additional storage tank, and a new 21-mile, 42-inch- diameter pipeline.	F, P
Magnolia LNG Project (Magnolia LNG, LLC) (2) (FERC 2015b)	Industrial Projects	Calcasieu F: 1.4 miles east of Facility. P: 2.4 miles east of Pipeline	Construction: 2019 Operation: 45 month construction period (Train 1); 3-month intervals after completion of first train (Trains 2, 3, and 4)	New LNG facility	F, P
Lake Charles LNG (Trunkline) Project (Lake Charles LNG Company, LLC) (3) (FERC 2015c)	Industrial Projects	Calcasieu, and Jefferson Davis F: 2.6 miles east of Facility. P: Crosses the proposed Pipeline at approx. MP 47.9	Construction: 2019 Operation 2019-2020	Expansion of LNG facility, addition of one new compressor station, one new meter station, 11.4 miles of new 42-inch-diameter pipeline, 6.5 miles of new 24-inch-diameter pipeline, and replacement of 5,577 feet of existing pipeline.	F, P
Monkey Island LNG Project (formerly SCT&E LNG Project) (SCT&E LNG) (5)	Industrial Projects	Cameron F: 20.7 miles south of Facility. P: 22.1 miles south of Pipeline	Construction: Information Unavailable Operation: 2023/2024	New LNG facility	F
Commonwealth LNG Project (formerly Waller LNG)(Commonwealth LNG, LLC) (6) (Commonwealth LNG, LLC. 2017)	Industrial Projects	Cameron F: 21.9 miles south of Facility. P: 23.2 miles south of Pipeline	Construction: 2019 Operation: 2024	New LNG facility	F
Calcasieu Pass Terminal and TransCameron Pipeline Project (7) (Venture Global Calcasieu Pass, LLC; Transcameron Pipeline, LLC. 2015)	Industrial Projects	Cameron F: 20.3 miles south of Facility. P: 21.7 miles south of Pipeline	Construction: 2019 Operation: 2022	New LNG facility and 23.4- mile pipeline	F

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Citadel Completions (AAR) (8)	Industrial Projects	Calcasieu F: 13.1 miles northeast of Facility. P: 9.8 miles southeast of Pipeline	2018	Aircraft Maintenance Center	F, P
Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project (Lotte Corporation / Axiall Corporation) (9)	Industrial Projects	Calcasieu F: 8.1 miles northeast of Facility. P: 5.5 miles east of Pipeline	Construction: Present Operation: 2019	Construction of chemical facility to produce ethylene and a new ethane cracker for ethylene production	F, P
Dongsung FineTec (Dongsung FineTec Co. Ltd.) (10)	Industrial Projects	Calcasieu F: 13 miles northeast of the Facility. P: 10.0 miles south of Pipeline	Construction: 2017 Operation: 2020	Cryogenic insulation production facility	F, P
Entergy Louisiana (11)	Industrial Projects	Calcasieu F: 3.8 miles north. P: 3.2 miles east	Construction: 2016. Operation: 2018	Build 2 new substations. Expand 2 existing substation. Add 25 miles of high voltage transmission lines.	F, P
Indorama Ventures (13)	Industrial Projects	Calcasieu F: 5.6 miles north. P: 3.7 miles east	Construction: 2016 Operation: 2017	Ethane cracker facility production of ethylene and propylene (refurbish)	F, P
York Capital (formerly Juniper GTL) (14)	Industrial Projects	Calcasieu F: 9.8 miles northeast. P: 5.2 miles south	Construction: 2016 Operation: 2017	Natural gas to liquids plant (refurbish)	F, P
Sasol Project (Sasol, Ltd.) (20) (USACE 2013b)	Industrial Projects	Calcasieu F: 10.3 miles northeast of Facility. P: 3.4 miles southeast of Pipeline	Ethane Cracker Complex: Construction: 2015 Operation 2019	Construction of a petrochemical complex with ethane cracker and six chemical manufacturing plants	F, P
Evangeline Ward 1 Industrial Park Expansion (24)	Industrial Projects	Evangeline F: 76.3 miles northeast of Facility. P: 6.8 miles north of Pipeline	Construction: Present Operation: Information Unavailable	96.5 acre state certified site located north of Ville Plat, houses Ville Platt Iron Works and Cameron Valves (Cameron Ironworks – merger, company focused on production of oil and gas tools and machinery)	P

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Bayou Bridge Pipeline Project (Bayou Bridge Pipeline, LLC) (25) (USACE 2016)	Pipeline Projects	Acadia, Calcasieu, and Jefferson Davis F: 2.91 miles northeast of the facility. P: 3.66 miles east of the Pipeline.	Construction: 2018 Operation: 2018	Approximately 163 miles of new 24-inch diameter crude oil pipeline	F, P
Cameron Access Project (Columbia Gulf Transmission, LLC) (26) (FERC 2015d)	Pipeline Projects	Calcasieu and Jefferson Davis F: 1.08 mile south of the facility. P: 2.44 miles south of the Pipeline	Construction: November 2015 Operation: March 2018	Approximately 34 miles of new 30-inch and 36-inch natural gas transmission pipeline and compressor station.	F, P
Sabine Pass Expansion Project (Kinder Morgan Louisiana Pipeline LLC) (27) (FERC 2017)	Pipeline Projects	Cameron, Acadia, Evangeline F: 53.5 miles northeast of the facility. P: 120 feet southeast of the Pipeline centerline (workspace overlaps)	Construction: 2018 Operation: 2019	Modification to existing interconnects; construction of a new interconnect, a total of 7,600 feet of 36-inch- diameter pipeline, and 700 feet of 24-inch- diameter pipeline; and addition of 15,900 hp at a previously authorized but not yet constructed compressor station (CS 760).	P
Port Arthur Pipeline Louisiana Connector Project (Port Arthur Pipeline, LLC) (28) (Port Arthur Pipeline, LLC 2017)	Pipeline Projects	Calcasieu, Evangeline F: 3.4 miles west of the facility. P: Potentially collocated at various locations between MP 82.0 and 95.9	Const: Q1 2020 Operation: Q3 2022	Approximately 135 miles of new 42-inch diameter natural gas pipeline, one new compressor station, and interconnect facilities in east Texas and west Louisiana.	F, P
Dreamview Estate Phase III (37) (FERC 2015b)	Housing Developments	Calcasieu F: 18.4 miles northeast of Facility. P: 0.2-mile north of Pipeline	Construction: 2016 Operation: Information Unavailable	33 lot subdivision	P
Taylor Estates Subdivision (51)	Housing Developments	Calcasieu F: 5.8 miles northwest of Facility. P: 0.3 miles east Pipeline	Information Unavailable	33 lot residential development	P
Williams Pipeline Relocation (66)	FERC-jurisdictional Projects	Calcasieu F: Within the Facility Site. P: Collocated within the Facility Site	2018	Relocate approximately 7,000 feet of existing 6-inch diameter hydrocarbon pipeline.	F, P ^c

Table 4.14-5

Other Projects in the Air Quality Geographic Scope of Analysis Considered for Cumulative Impacts

Project (Project Proponent) (No. on Map)	Type	Parish Distance From Facility (F) and/or Pipeline (P) ^a (miles)	Anticipated Construction Date	Description ^b	Air Quality Cumulative Impact Association (Facility: F, Pipeline: P)
Entergy Facility Transmission Line (67)	Other Energy Projects	Calcasieu F: Partially located within the Facility Site. P: Collocated within the Facility Site	2022	Addition of one new 230 kV substation (Big Lake) and approximately 5.6 and 5.0 miles of new 230 kv electric transmission lines.	F, P ^c
Bollinger Shipyard Access Road (68)	Transportation, Port, and Road Improvements	Calcasieu F: Within the Facility Site. P: 0.1 mile southeast of the Pipeline	2018	Extend the existing Burton Shipyard Road approximately 700 feet to provide access to the Bollinger Shipyard.	F, P ^c
Highway 27 Improvements (69)	Transportation, Port, and Road Improvements	Calcasieu F: Varies. P: Varies	2018	Widening of Highway 27 and/or improvement of intersections between Interstate 10 and Burton Shipyard Road.	P ^c
Burton Shipyard Road Improvements (70)	Transportation, Port, and Road Improvements	Calcasieu F: Located immediately north of the Facility Site. P: Collocated within the Facility Site	2018	Widen, upgrade, and resurface Burton Shipyard Road	F, P ^c

As indicated in table 4-14-1, GHGs do not have a local geographic scope.

^a Only those resources where the Project may contribute to cumulative impacts, as described in the following sections are indicated in this column. 'None' indicates where the Project has no impact for any resource within the geographic scope, based on a review of potential Project impacts and mitigation, and therefore the Project would not cumulatively interact with a project. Distance is measured from the nearest portion of the Facility boundary and/or the Pipeline workspace from the identified project's location.

^b Based upon readily available public information.

^c Project is within the LNG Facility Site; impacts would not contribute to cumulative impacts.

APPENDIX B

DISTRIBUTION LIST

APPENDIX B

Federal Government Agencies

Advisory Council on Historic Preservation
(ACHP), John Eddins , DC

Army Corps of Engineers, Planning and Policy
Division , John Furry, DC

Bureau of Indian Affairs, DOI, Pamela Snyder-
Osmun, VA

Bureau of Indian Affairs, DOI, Terry L McClung,
DC

Bureau of Land Management, DOI, Kerry
Rogers, DC

Bureau of Ocean Energy Management, DOI,
Dr. Jill Lewandowski, VA

Bureau of Oceans & International
Environmental & Scientific Affairs, DOS ,
Alexander Yuan, DC

Bureau of Safety and Environmental
Enforcement, DOI, David Fish, VA

Conservation and Environmental Program
Division, FSA, USDA, Nell Fuller, DC

Council on Environmental Quality, Edward
Boling, DC

Council on Environmental Quality, Manisha
Patel, DC

Department of Wildlife and Fisheries, Zachary
Chain, LA

Dept. of Health and Human Services, Edward
Pfister, DC

Environment and Natural Resources Division,
DOJ, , DC

Environmental Protection Agency, Cynthia
Giles, DC

Environmental Protection Agency, Jerome
Blackman, DC

Environmental Protection Agency, Karin Leff,
DC

Environmental Protection Agency, Susan E
Bromm, DC

Federal Emergency Management Agency
(FEMA), Tony Robinson, TX

Federal Energy Regulatory Commission, Alisa
Lykens , DC

Federal Energy Regulatory Commission, Kelley
Munoz, DC

Federal Energy Regulatory Commission, Rich
McGuire , DC

Federal Energy Regulatory Commission,
Robert Kopka , DC

Federal Energy Regulatory Commission, Terry
Turpin , DC

National Center for Environmental Health,
CDC, HHS, Sharunda Buchanan, GA

National Oceanic and Atmospheric
Administration and Fisheries Service (NOAA
Fisheries), David Bernhart , FL

National Oceanic and Atmospheric
Administration and Fisheries Service (NOAA
Fisheries), Richard Hartman, LA

National Oceanic and Atmospheric
Administration and Fisheries Service (NOAA
Fisheries), Roy E. Crabtree, FL

National Marine Fisheries Service, Brandon
Howard, FL

National Park Service, DOI, Patrick Walsh, CO

Natural Resources Conservation Service,
USDA, Andree DuVarney, DC

NOAA National Marine Fisheries Service, Dept.
of Commerce, , MD

Office of Assistant Secretary for
Transportation Policy, USDOT, Camille
Mittelholtz, DC

Office of Assistant Secretary for
Transportation Policy, USDOT, Helen Serassio,
DC

APPENDIX B (cont'd)

Office of Environment and Energy, HUD,
Danielle Schopp, DC

Federal Government Agencies (cont'd)

Office of Environmental Management, DOE ,
Mark Whitney, DC

Office of Federal Programs, Advisory Council
on Historic Preservation, Charlene D Vaughn,
DC

Office of NEPA Policy and Compliance, DOE,
Carol M. Borgstrom, DC

Office of Pipeline Safety USDOT PHMSA, Bryn
Karaus , DC

Office of Pipeline Safety USDOT PHMSA,
Kenneth Y Lee, DC

Pipeline & Hazardous Materials Safety
Administration USDOT, Magdy El-Sibaie, DC

Pipeline & Hazardous Materials Safety
Administration, Office of Pipeline Safety,
USDOT , Karen Lynch, DC

Pipeline & Hazardous Materials Safety
Administration, USDOT, Jeffrey Wiese, DC

Pipeline & Hazardous Materials Safety
Administration, USDOT, Sherri Pappas, DC

Pipeline and Hazardous Materials Safety
Division, Kenneth Y. Lee, DC

Senate Energy and Natural Resources
Committee, Lisa Murkowski, DC

Surface Transportation Board, USDOT ,
Victoria Rutson, DC

U.S. Fish and Wildlife Service, Brad Rieck, LA

U.S. Fish and Wildlife Service, Debbie Fuller,
LA

U.S. Fish and Wildlife Service, Stephen R
Spencer, NM

U.S. Army Corps of Engineers, Amy Ostringer ,
LA

U.S. Army Corps of Engineers, Amy Powell , LA

U.S. Army Corps of Engineers, Darrell Barbara,
LA

U.S. Army Corps of Engineers, Edward Creef,
LA

U.S. Army Corps of Engineers, India Sims, LA

U.S. Army Corps of Engineers, James Little, LA

U.S. Army Corps of Engineers, Jeff Corbino, LA

U.S. Army Corps of Engineers, Martin Mayer ,
LA

U.S. Army Corps of Engineers, Rick Broussard,
LA

U.S. Army Corps of Engineers, Robert Swayze,
LA

U.S. Army Corps of Engineers, Tracy Falk, LA

U.S. Army Corps of Engineers, Yojna Calix, LA

U.S. Coast Guard, Dallas Smith, TX

U.S. Coast Guard, Jason Smith, TX

U.S. Coast Guard, Nathaniel Robinson, NH

U.S. Coast Guard, R.S. Ogrydziak, TX

U.S. Coast Guard Academy, Dan Cost, CT

U.S. Coast Guard, Lake Charles, Dimitri
Wiener, LA

U.S. Coast Guard, Lake Charles, Lindsey
Flanagan, LA

U.S. Coast Guard, Lake Charles, Michael Oyler,
LA

U.S. Coast Guard, Lake Charles, Samuel
Rodriguez-Gonzalez, LA

U.S. Department of Energy, Brian Lavoie, DC

U.S. Department of Energy, Office of Fossil
Energy (DOE), Amy Sweeney, DC

U.S. Department of Interior, Amy Trahan, LA

U.S. Department of Interior, Angela Trahan, LA

U.S. Department of Interior, John Nelson, NM

U.S. Department of Interior, Stephen Spencer,
NM

APPENDIX B (cont'd)

Federal Government Agencies (cont'd)

U.S. Department of Transportation, Buddy Secor, DC

U.S. Department of Transportation, Stacy Cummings, DC

U.S. Department of Transportation, Wayne Lemoi, GA

U.S. Department of Transportation, Federal Aviation Administration, Kevin Solco, TX

U.S. Environmental Protection Agency (EPA), Ron Curry, TX

U.S. Environmental Protection Agency Region 6, Cheryl Seager, TX

U.S. Environmental Protection Agency Region 6, Kimeka Price, TX

U.S. Environmental Protection Agency Region 6, Robert Houston, TX

U.S. Fish and Wildlife Service, Joshua Marceaux, LA

US Customs and Border Protection Dept. of Homeland Security, Christopher Oh, DC

US Department of Energy, John Anderson, DC

US Department of Energy, Office of Fossil Energy, Office of Regulation and International Engagement, Division of Natural Gas Regulation, Kyle W. Moorman, DC

US Department of Homeland Security, FEMA Region 6, Mayra G. Diaz, TX

US Geological Survey, Esther Eng, VA

USDA Forest Service-Ecosystem Management Coordination, Joe Carbone, DC

Federal Senators and Representatives

Office of U.S. Congressman Clay Higgins, Ward Cormier, LA

Office of U.S. Senator Bill Cassidy, David A Cavell, LA

U.S. Congress, Bob Gibbs, OH

U.S. Congress, Garret Graves, DC

U.S. Congress, Gene Green, DC

U.S. Congress, Mike Johnson, DC

U.S. Congress, Pete Olson, DC

U.S. Congress, Ralph Abraham, DC

U.S. Congress, Steve Scalise, DC

U.S. Congress, Tim Ryan, DC

U.S. Congress, Vicente Gonzalez, DC

U.S. House of Representatives, Brad Wenstrup, DC

U.S. House of Representatives, Clay Higgins, LA

U.S. House of Representatives, Garrett Graves, LA

U.S. House of Representatives, Mike Johnson, LA

U.S. House of Representatives, Ralph Abraham, LA

U.S. Senate, Bill Cassidy, LA

U.S. Senate, John Neely Kennedy, DC

U.S. Senate, John Neely Kennedy, LA

State Senators and Representatives

Governor of the State of Louisiana, John Bel Edwards, LA

Lt. Governor of the State of Louisiana, Billy Nungesser, LA

Office of Representative A.B. Franklin, Athena Woods, LA

Office of Representative Dorothy Sue Hill, Linda Willis, LA

Office of Representative H. Bernard LeBas, Rhonda Reed, LA

Office of Representative John Guinn, Mary Tietje, LA

Office of Representative Mark Abraham, Ginger Gomez, LA

State Senators and Representatives (cont'd)

APPENDIX B (cont'd)

Office of Representative Michael Danahay,
Karen Gothreaux, LA

Office of Representative Phillip R. DeVillier,
Rebel S. Manuel, LA

Office of Representative Stephen Dwight,
Cynthia Haman, LA

Office of Senator Dan Morrish, Jennifer
Boudreaux, LA

Office of Senator John Smith, Willie Boswell,
LA

Office of Senator Ronnie Johns, Alexis Jackson,
LA

State House of Representatives, A.B. Franklin,
LA

State House of Representatives, Craig "Bob"
Hensgens, LA

State House of Representatives, Dorothy Sue
Hill, LA

State House of Representatives, H. Bernard
LeBas, LA

State House of Representatives, John E. Guinn,
LA

State House of Representatives, Mark
Abraham, LA

State House of Representatives, Michael
Danahay, LA

State House of Representatives, Phillip
DeVillier, LA

State House of Representatives, Stephen
Dwight, LA

State House of Representatives, Stewart J.
Bishop, LA

State House of Representatives, Taylor Barras,
LA

State Senator , Dan "Blade" Morrish, LA

State Senator , Eric LaFleur, LA

State Senator , John Smith, LA

State Senator , Ronnie Johns, LA

State Government Agencies

Louisiana Attorney General, Jeff Landry , LA

Louisiana Department of Environmental
Quality (LDEQ), Bruce Fielding , LA

Louisiana Department of Environmental
Quality (LDEQ), Donald Trahan, LA

Louisiana Department of Environmental
Quality (LDEQ), Jamie Phillippe , LA

Louisiana Department of Environmental
Quality (LDEQ), Scott Guilliams, LA

Louisiana Department of Environmental
Quality (LDEQ), Tegan Treadaway, LA

Louisiana Department of Natural Resources
(LDNR), Christine Charrier, LA

Louisiana Department of Natural Resources
(LDNR), Jessica Bickham, LA

Louisiana Department of Natural Resources
(LDNR), Joseph S. Ball Jr., LA

Louisiana Department of Natural Resources
(LDNR), Karl Morgan , LA

Louisiana Department of Natural Resources
(LDNR), Nicole Dandourand, LA

Louisiana Department of Natural Resources
(LDNR), Ontario James, LA

Louisiana Department of Transportation and
Development, Jared Chaumont, LA

Louisiana Department of Transportation and
Development, Joy Johnson, LA

Louisiana Department of Transportation and
Development, Shawn Wilson, LA

Louisiana Department of Wildlife and Fisheries
(LDWF), Amity Bass, LA

Louisiana Department of Wildlife and Fisheries
(LDWF), Dave Butler, LA

Louisiana Department of Wildlife and Fisheries
(LDWF), Nicole Lorenz, LA

State Government Agencies (cont'd)

APPENDIX B (cont'd)

Louisiana Department of Wildlife and Fisheries (LDWF), Randall Myers, LA

Louisiana Division of Archaeology (LDA), Charles Chip McGimsey, LA

Louisiana Natural Heritage Program, Carolyn Michon, LA

Louisiana State Historic Preservation Office, Phil Boggan, LA

River Pilots' Association - Lake Charles Pilots, Brett Palmer, LA

Local Government Agencies

Acadia Parish, AJ Broussard, LA

Acadia Parish, Elaine Credeur, LA

Acadia Parish, Laura Faul, LA

Acadia Parish, Lee Hebert, LA

Acadia Parish, Michael Schexnider, LA

Acadia Parish Police Jury, Chuck Broussard, LA

Acadia Parish Police Jury, David Savoy, LA

Acadia Parish Police Jury, Gloria Herbert, LA

Acadia Parish Police Jury, Jimmie Pellerin, LA

Acadia Parish Police Jury, Kerry Kilgore, LA

Acadia Parish Police Jury, Richard Faul, LA

Acadia Parish Police Jury, Robert J. Guidry, LA

Acadia Parish Police Jury, Ronnie Fabacher, LA

Allen Parish, Richard Earl, LA

Allen Parish Police Jury, Colleen Sonnier, LA

Allen Parish Police Jury, Creig Vizena, LA

Allen Parish Police Jury, Matthew Fontenot, LA

Allen Parish Sheriff's Office, Doug Hebert, LA

Beauregard Parish Police Jury, Carlos Archield, LA

Beauregard Parish Police Jury, Elvin "Doc" Holliday, LA

Beauregard Parish Police Jury, Gerald "Mike" McLeod, LA

Beauregard Parish Police Jury, Jerry Shirley, LA

Beauregard Parish Police Jury, John Stebbins, LA

Beauregard Parish Police Jury, Mike Harper, LA

Beauregard Parish Police Jury, N.R. "Rusty" Williamson, LA

Beauregard Parish Police Jury, Ronnie Jackson, LA

Beauregard Parish Police Jury, Ronnie Libick, LA

Beauregard Parish Police Jury, S.E. Teddy Welch, LA

Beauregard Parish Police Jury, Tayra Dehoven, LA

Beauregard Parish Sheriff, Ricky Moses, LA

Calcasieu Parish, Alice Webb, LA

Calcasieu Parish, Allen Wainwright, LA

Calcasieu Parish, Dana Watkins, LA

Calcasieu Parish, Jay Picard, LA

Calcasieu Parish, Jennifer Wallace, LA

Calcasieu Parish, Timothy Mark Conner, LA

Calcasieu Parish, Wesley Crain, LA

Calcasieu Parish Police Jury, Bryan Beam, LA

Calcasieu Parish Police Jury, Chris Landry, LA

Calcasieu Parish Police Jury, Hal McMillin, LA

Calcasieu Parish Police Jury, Kathy Smith, LA

Calcasieu Parish Police Jury, Les Farnum, LA

Calcasieu Parish Police Jury, Tammy Bufkin, LA

Calcasieu Parish Sheriff, Tony Mancuso, LA

Calcasieu Parish Sheriff's Office, Matt Vezinot, LA

Calcasieu Parish Sheriff's Office, Will Scheufens, LA

Local Government Agencies (cont'd)

Cameron Parish, Myles Hebert, LA

APPENDIX B (cont'd)

City of Eunice, Germaine Simpson, LA
City of Eunice, Ginny Moody, LA
City of Eunice, Harry Summerlin, LA
City of Eunice, Heather Lanclos, LA
City of Eunice, I. Jackson Burson, LA
City of Eunice, Jason Bertrand, LA
City of Eunice, Marion Sattler, LA
City of Eunice, Scott Fontenot, LA
City of Lake Charles , Nic Hunter, LA
City of Sulphur, Arlene Blanchard, LA
City of Sulphur, Christopher Duncan, LA
City of Sulphur, Dennis Bergeron, LA
City of Sulphur, Dru Ellender, LA
City of Sulphur, Kaitln Gallegos, LA
City of Sulphur, Melinda Hardy, LA
City of Sulphur, Randy Favre, LA
City of Sulphur, Stuart Moss, LA
City of Ville Platte, Bryant Riggs, LA
City of Ville Platte, C.J. Dardeau, LA
City of Ville Platte, Donald Sam, LA
City of Ville Platte, Freddie Jack, LA
City of Ville Platte, Jennifer Vidrine, LA
City of Ville Platte, Jerry Joseph, LA
City of Ville Platte, Mike Perron, LA
City of Westlake, Angie McBride, LA
City of Westlake, Bob Hardey, LA
City of Westlake, David Doucette, LA
City of Westlake, Della Hoffpauir, LA
City of Westlake, James Cormier, LA
City of Westlake, Pat Ellender, LA
City of Westlake, Rachel Collins, LA
City of Westlake, Terri Hawes, LA

Evangeline Parish, Liz Hill, LA
Evangeline Parish, Rachel West, LA
Evangeline Parish Police Jury, Bryan Vidrine, LA
Evangeline Parish Police Jury, Chester Granger, LA
Evangeline Parish Police Jury, Daniel Arvie, LA
Evangeline Parish Police Jury, Donald Bergeron, LA
Evangeline Parish Police Jury, Eric Soileau, LA
Evangeline Parish Police Jury, Kevin Veillon, LA
Evangeline Parish Police Jury, Lamar Johnson, LA
Evangeline Parish Police Jury, Mindy LaLonde, LA
Evangeline Parish Police Jury, Rocky Rider, LA
Evangeline Parish Police Jury, Ryan Ardoin, LA
Evangeline Parish Police Jury, Ryan Williams, LA
Evangeline Parish Police Jury, Sidney Fontenot, LA
Evangeline Parish Sheriff, Eddie Soileau, LA
Jefferson Davis Parish, Bill Wild, LA
Jefferson Davis Parish, Bradley Eastman, LA
Jefferson Davis Parish, Byron Buller, LA
Jefferson Davis Parish, Curt Guillory, LA
Jefferson Davis Parish, Donald Woods, LA
Jefferson Davis Parish, Ivy Woods, LA
Jefferson Davis Parish, John P. Marceaux, LA
Jefferson Davis Parish, Leonard Dupuis, LA
Jefferson Davis Parish, Linda Skrantz, LA
Jefferson Davis Parish, Mark Pousson, LA
Local Government Agencies (cont'd)
Jefferson Davis Parish, Melvin Adams, LA
Jefferson Davis Parish, Ricky Arcemeaux, LA

APPENDIX B (cont'd)

Jefferson Davis Parish, Sherwin LeFranc, LA
Jefferson Davis Parish, Steve Eastman, LA
Jefferson Davis Parish, Tom Kilpatrick, LA
Jefferson Davis Parish, Wayne Fruge, LA
St. Landry Parish, Alvin Stelly, LA
St. Landry Parish, Bobby J. Guidroz, LA
St. Landry Parish, Coby R. Clavier, LA
St. Landry Parish, Dexter Brown, LA
St. Landry Parish, Easton Shelvin, LA
St. Landry Parish, Harold L. Taylor, LA
St. Landry Parish, Jerry Red, LA
St. Landry Parish, Jimmie Edwards, LA
St. Landry Parish, Kenneth Marks, LA
St. Landry Parish, Mildred Thierry, LA
St. Landry Parish, Nancy A. Carriere, LA
St. Landry Parish, Russell Schexnayder, LA
St. Landry Parish, Timmy LeJeune, LA
St. Landry Parish, Vallie Theriot, LA
St. Landry Parish, Vivian Olivier, LA
St. Landry Parish, W.K. Bill Fontenot, LA
St. Landry Parish, Wayne Ardoin, LA
Town of Iowa, Brad BeBee, LA
Town of Iowa, Carol Ponthieux, LA
Town of Iowa, Errol B. Marshall, LA
Town of Iowa, Gerald Guidry, LA
Town of Iowa, Julie Fontenot, LA
Town of Iowa, Larry Hardy, LA
Town of Iowa, Sandra Turley, LA
Town of Iowa, Tommy Talbot, LA
Town of Kinder, Angie Van Norman, LA
Town of Kinder, C. J. Fontenot, LA
Town of Kinder, Christopher Fontenot, LA

Town of Kinder, Maria DeWees, LA
Town of Kinder, Sylvester Popillion, LA
Town of Kinder, Traci Fontenot, LA
Town of Kinder, Wayland LaFargue , LA
Village of Fenton, Clifford LeDay, LA
Village of Fenton, Curtis Deville, LA
Village of Fenton, Eddie Alfred, Jr., LA
Village of Fenton, Krisi Boese, LA
Village of Fenton, Larnell Dickens, LA
Village of Fenton, Mary Jones, LA
Village of Fenton, Mike Holmes, LA
Village of Fenton, Paul South, LA

Native American Groups

Alabama Coushatta Tribe of TX, Bryant Celestine, TX
Alabama Coushatta Tribe of TX, Clayton Sylestine, TX
Alabama Coushatta Tribe of TX, Ronie Thomas, TX
Chitmacha Tribe of Louisiana, John Paul Darden, LA
Chitmacha Tribe of Louisiana, Kimberly Walden, LA
Choctaw Nation of Oklahoma, Gary Batton, OK
Choctaw Nation of Oklahoma, Ian Thompson, OK
Choctaw Nation of Oklahoma, Lindsey Bilyeu, OK
Coushatta Tribe of Louisiana, Linda Langley, LA
Coushatta Tribe of Louisiana, Lovelin Poncho, LA

Native American Groups (cont'd)

Jena Band of Choctaw Indians, Alina Shively, LA

APPENDIX B (cont'd)

Jena Band of Choctaw Indians, B. Cheryl Smith, LA

Jena Band of Choctaw Indians, Dana Masters, LA

Mississippi Band of Choctaw Indians, Kenneth Carleton, MS

Mississippi Band of Choctaw Indians, Phylis Anderson, MS

Tunica-Biloxi Indians of Louisiana, Earl J. Barbry Sr., LA

Tunica-Biloxi Indians of Louisiana, Marshall Pierite, LA

Libraries

Acadia Parish Library, Ted Landry, LA

Allen Parish Library, Agnes Guillory, LA

Basile Branch Library, Sherry Bergeron, LA

Beauregard Parish Library, Erin Chesnutt, LA

Calcasieu Parish Public Library, Anthony Zaunbrecher, LA

Hackberry Public Library, , LA

Jefferson Davis Parish Library, Linda LeBert-Corbello, LA

Mamou Branch Library, Angela Henry, LA

Opelousas-Eunice Public Library, Doris Lively, LA

Sulphur Regional Library, , LA

Ville Platte Library, Mary Foster-Galasso, LA

Companies and Organizations

Acadia Evangeline Fire Protection District, Greg Savoy, LA

Air Products & Chemicals Inc, Leticia Prevost, TX

Alfred Palma LLC, Alfred Palma, LA

Alfred Palma LLC, James Palma, LA

Allen Parish Ambulance Service, Mark Lyons, LA

Allen Parish Fire District 5, Robbie Evans, LA

Allen Parish Fire Protection District 4, Walter Lafargue, LA

Allen Parish Wd 3 Fire Department 2, , LA

Alliance for Affordable Energy, Casey DeMoss, LA

Aluminum Services, John Leggett, LA

American Petroleum Institute, DC

America's WETLAND Foundation, Val Marmillion, FL

ANR Pipeline Co, Andy Armstrong, TX

ANR Pipeline Co, Denny Skinner, MI

Arabie Law, Brian Arabie, LA

Audubon Louisiana, Douglas J. Meffert, LA

Baker Hughes, Inc. Matt Armstrong, TX

Banners at McNeese, Patricia Pludhemme, LA

Basden Agency, Alan Basden, LA

Basile Police Department, Allen Ivory, Jr., LA

Beauregard Parish Fire District 2, J.C. Phillips, LA

Big Brothers Big Sisters of Southwest Louisiana, Erin Davidson, LA

Blacklake Group, Eric Johnson, TX

Boardwalk Louisiana Midstream, LLC; Texas Gas; Gulf South Pipeline, Jeffrey McMaine, KY

Brosset Architect, David Brossett, LA

Buckeye Development & Logistics, LLC, Claudia Pankowski, PA

c/o Lennie J. Boulet, Allen Parish Ambulance Service, LA

Calcasieu Parish, Robert Daughdril, LA

APPENDIX B (cont'd)

Companies and Organizations (cont'd)

Cameron Interstate Pipeline, Hugh Berglund, LA

Cameron Parish Port, Harbor, and Terminal District, Clair Hebert Marceaux. LA

Carlyss Fire Department, James Stanley, LA

Central Crude, Steve Jordan, LA

Chair Environmental Group, Michael Dever, LA

Chaney Truck Inc., Eric Chaney, LA

Chennault International Airport, Randy Robb, LA

CITGO Pipeline Co, Mark Smith, TX

City of Lake Charles Police Department, Kirk Carroll, LA

Coalition to Restore Coastal Louisiana, Emily Vuxton, LA

Coalition to Restore Coastal Louisiana, Kimberly Davis Reyher, LA

Coastal Conservation Association, Ben Stein, LA

Coastal Crew Change, Kay & Larry Woodcock, LA

Coastal Crew Change, Tom & Kay Kussman, LA

Colonial Pipeline Co, Dona Harrington-Burns, GA

Colton Logistics, Wendy Harper , LA

Columbia Gulf, Joshua Gibbon, TX

Columbia Gulf Transmission, LLC, Deborah Matthews, WV

Creole Trails, E.W. (Whit) Scott, TX

CRX Lands, Brian Jones, LA

CSRS, Inc, James Geihlsler , LA

CSRS, Inc., James Geihlsler, LA

Cypress Engineering Group, John Lowery, LA

Cypress Interstate Pipeline LLC, Bob Cote, TX

Denbury Gulf Coast Pipelines, LLC, , TX

Devall Towing, Joe Devall , LA

DeWanna's Closet, DeWanna Tarver, LA

Dixie Pipeline Company, Daniel Rodriguez, LA

Dixie Pipeline Company LLC, Mike McLaughlin, TX

Dow Pipeline Co - Cayuse; Ucar Pipeline, Roger Smith, TX

Ducks Unlimited, Cassidy Lejeune, LA

Ducks Unlimited, Jay Owen, LA

Ducks Unlimited, Mark Callais, LA

Dynamic Industries, J.D. Touchet , LA

Eagle Us 2 LLC, Jessie Casey, LA

Egan Hub Storage, Llc (Spectra Energy Partners, Lp), Dwayne Teschendorf, TX

Energy Transfer, Jeffrey K Brightwell , TX

Energy Transfer, Steve Couch, TX

Enlink Lig, LLC, Bill Worley, TX

Enlink NGL Pipeline, LP, Kristin Coats, TX

Entergy Louisiana, Phillip R. May, LA

Environmental Defense Fund, Fred Krupp, NY

Equistar Chemicals, L.P., Matthew Cesarz, TX

Eunice Chamber of Commerce, Kelly Pitre, LA

Evangeline Securities Co., Robert Eastin, LA

Fenstermaker, Rene Escuriex , LA

Five S, Andre Smith, LA

Five S, Trey Cline, LA

Five S Industrial, Danielle Hosch, LA

Flavin Realty, Dan Flavin, LA

Florida Gas, Mike Bryant, TX

Gulf Restoration Network, Cyn Sarthou, LA

HGA, Ernest Broussard , LA

APPENDIX B (cont'd)

Companies and Organizations (cont'd)

Home Builders Association of Southwest Louisiana , Liz Trahan, LA

Houston River Volunteer Fire Department, , LA

Hunt Guillot & Associates, Ernest Broussard, LA

Hunt Guillot & Associates, Jim Hughes, TX

Imperial Calcasieu Regional Planning & Development Commission (IMCAL), Jerry W. Jones, LA

Institutional Advancement and SOWELA Foundation, Marianne P. White, LA

International Crane Foundation, Liz Smith, WI

J&P Land Development, LW Sellers, LA

Jeff Davis Economic Development & Tourist Commission, Marion Fox, LA

Jefferson Davis Electric Cooperative, Michael Heinen, LA

Jerry Haynes Construction, Jerry Haynes, LA

Joh H. Carter Company, Inc., Lori Manuel, LA

Kinder Chamber of Commerce , Jennifer Dughlian, LA

Kinder Morgan , Donette Bisett, TX

Kinder Morgan Louisiana Pipeline, Frank Strong, IL

Kinder Police Department, Charles Welch, LA

Kinetica Energy Express LLC, Susie Richmond, TX

LA Tank/Central Crude, Devin Palomino, LA

Lake Area Industry Alliance, Larry DeRoussel, LA

Lake Charles Southwest Louisiana Convention and Visitors Bureau, Shelley Johnson, LA

Laughlin Surveying, Inc., John Laughlin, LA

LED, William Day, LA

Lemoine Interests, Adam Lemoine , LA

Lifeline-West Calcasieu, , LA

LNG Project, Maury Hudson, TX

LNG TSI Inc., James Lormand, LA

Local 692, Ellis Quave, LA

Louisiana Bucket Brigade, Anne Rolfes, LA

Louisiana Economic Development (LED), Michael Pernici, LA

Louisiana Environmental Action Network, Marylee Orr, LA

Louisiana Mid-Continent Oil and Gas Association, LA

Louisiana Pigment, Gil Broussard, LA

Louisiana State Police, John Porter, LA

Louisiana Wildlife Federation , Rebecca Triche, LA

LSU Ag Center, Kevin Savoie , LA

Mamou Fire District 2, Gary Reed, LA

Mamou Police Department, Brett Zackery, LA

McNeese State University, Nikos Kiritsis, LA

Moran Shipping Agencies, Inc., Alan Courmier, LA

National Bio-Care, Neil Clark , LA

National Inspection Service, Ed Manuel, LA

Occidental Chemical Corp, Cathleen Yeager, TX

P & I Supply, Chris Minior , TX

Paa Natural Gas Storage, LLC, John Waldeck, TX

Phillips 66, Dustin Alegre, TX

Phillips 66 Pipeline Llc, Ed Hetsko, TX

Pine Prairie Volunteer Fire Department - Lake Cove Fire Department, , LA

Port of Lake Charles, Barbara M. McManus, LA

Port of Lake Charles, Bill Rase, LA

Port of Lake Charles, Channing Hayden, Jr., LA

APPENDIX B (cont'd)

Companies and Organizations (cont'd)

Port of Lake Charles, Dan Loughney, LA

Port of Lake Charles, Donald Brinkman, LA

Port of Lake Charles, R. Regan Brown, LA

Port of Lake Charles, Todd Henderson, LA

Port of Lake Charles, William J. Race, III, LA

Praxair, Inc, John Maitino, NY

Primoris James Construction, Josh Cooper, LA

S&S Sprinkler/CPLEPC, Mason Lindsay, LA

Seabulk Towing, Aaron Andrus, LA

Shell Pipeline Co., L.P., Pratik Bhakta, TX

Ship to Shore Co., Sheron Faulk, LA

Sierra Club – Delta Chapter , Woody Martin, LA

Southwest Louisiana Association of Realtors, Inc., Lisa Verrette, LA

Southwest Louisiana Community Foundation, Jon Manns, LA

Southwest Louisiana Socio-econ Alliance, Avon Knowlton, LA

Southwest Louisiana Socio-econ Alliance, RB Smith, LA

SOWELA Technical Community College, Neil Aspinwall, LA

St. Landry Parish, Lisa Vidrine, LA

Sulphur Fire Department, Danny Dupre, LA

SWLA Economic Development Alliance, George Swift, LA

T. Baker Smith, Brady Trahan, LA

T. Baker Smith, Jonathan Bostick, LA

Targa NGL Pipe Line Co, Tim Huffer, TX

Tennessee Gas, Stuart Neck, TX

Tennessee Gas Pipeline Company, Gary Taylor, TX

Terracon, Eric McClanahan, LA

Texas Eastern & Egan Hub Partners, Kimberly Stroup, TX

Texas Gas (Boardwalk Pipeline Partners), Jill H. Edwards, TX

The Mitigation Group, Jay Fear, LA

The Mitigation Group, Jay Fear , LA

The Pauley Corporation, Pete Panly, LA

Thompson Shipping Agency, LLC, David Thompson , LA

Town of Iowa, Keith Vincent, LA

Town of Iowa, Sandi Miller, LA

Transco, Ross Conatser, TX

Transcontinental Gas Pipe Line Company, Bryan Ferguson, TX

TRC, Doree DuFresne, CO

TRC, Keith Suderman, GA

Trunkline, John Reid, TX

Trunkline Gas Co, Nathan Hlavaty, TX

United Office Supply, Carolyn Chitty, LA

Varibus Corp, Chuck Fontenot, TX

Village of Fenton, Luther Alfred , LA

Ville Platte Fire Department, , LA

Ville Platte Police Department, Neal Lartigue, LA

Ward Six Fire Protection District 1, , LA

West Cal. Cam. Hospital, Randy Farve, LA

West Calcasieu Association of Commerce, Jody Barrilleaux, LA

West Calcasieu Association of Commerce, Lena McArthur, LA

West Calcasieu Chamber of Commerce, Lena McArthur, LA

West Calcasieu Port, John Hohensee, LA

Companies and Organizations (cont'd)

West Calcasieu Port, Lynn Hohensee, LA

West Calcasieu Port & Port of Vinton, Lynn
Hohensee, LA

West Cameron Port, Harbor & Terminal
District, Clair Hebert, LA

Westlake Petrochemicals Llc, George Slover,
LA

Westlake Police Department, Chris Wilrye, LA

Youngstown/Warren Regional Chamber,
James Dignan, OH

APPENDIX B (cont'd)

Individuals

4-T Investments, Inc., LA
A. Kent Seale, LA
Abear-Nunez Farms, LLC, LA
Abraham Parnell, et al., LA
Acadia Parish School Board, LA
Adam Daigle, et al., LA
Adam T. Read c/o James Aguiard, LA
Albert David Hooper, et al., LA
Albert Duwane Holden, et al., LA
Alford Clooney Savoie, LA
Alfred Clayton Gintz, et al., LA
Allen Courville, LA
Allen J. Lejeune, LA
Allen Parish School Board, LA
Allied Development, Inc., Eric L. Fontenot, LA
Allied Development, Inc., LA
Alton Dudley LeDoux c/o Crystal Capili Ledoux,
Alton Joseph Manuel, LA
Amar Ronald Johnson, et al., LA
AMC, LP c/o William Chapman, TX
American Sulphur and Oil Company c/o Doug Cook, LA
Amy Denise David Fuselier, et al., LA
Andeleah Fogleman Dronett, et al., LA
Andre Land & Cattle, LLC, LA
Andree H. Macaluso, LA

Andrew J. Fontenot, et al., LA
Andrew Sutton Antonetz, LA
Andy Edwards, et al., LA
Angela Marie Broussard, LA
Angela S. Longoria, LA
Anita Joyce Young, LA
Anne Coleman-Reinauer, et al., LA
Anne Corin Mitchell Liscum, LA
Anne Hawsey, LA
Anne Marie Ribbeck Phillips, LA
Annette Renee Westlund Sheumaker, LA
Annie Burgess Pomeroy Trust, et al., CA
ANR Pipeline Company c/o Property Tax Department, TX
Anthony Jackson Hebert, LA
Anthony Marek, TX
Anthony Todd Mathews, et al., LA
Arlin Levy, LA
Arlin Wayne Levy, et al., LA
Arnold Adrian Flower, LA
Arthur Hollins, III, et al., LA
Arthur L. Greene, et al., LA
Arthur Rene Guidry, LA
Ashley Allen Hughes, LA
ASW Properties, LLC, et al., TX
August Leonards, III, LA
Autry James Thibodeaux, LA
Ava Jerome Johnson, Jr., CA
B H Timber, Inc., LA
B. Paul LeJeune c/o Wedna K. LeJeune, LA

Baggett Enterprises, LLC c/o Horace Baggett, LA
Baldwin Paul LeJeune, et al., LA
Barbara Benoit Johnson, et al., LA
Barbara Ellen Oakley, LA
Barbara Jean Manuel Vidrine, LA
Barry N. Tietje, LA
Beatrice B. Guillot Estate c/o Marcel Guillot, LA
Bel Commercial, LLC c/o John A. Bel, LA
Belarbor Timber, LLC, LA
Belinda F. Chretien, LA
Benjamin Joseph Guilbeau, Jr., LA
Bennett Oil Corporation, et al. c/o Weber Building, LA
Bercy C. LaFluer, LA
Bernice Vidrine Klumpp c/o Diane K. Bandel, TX
Bert Chapman, CO
Betty Ann Ardoin Abshire, LA
Betty Ann Campbell, LA
Betty Avery, LA
Betty Jo Putnam-Aguillard, LA
Beverly Jane Moss Scholtens, LA
Beverly Scholter, LA
Bill & Mary LeBlanc, LA
Bill Terry, LA
Billie J. Lyles, et al., LA
Billie Joe Cole, LA
Billy Almanza, GA
Billy Ray Moses, et al., LA

APPENDIX B (cont'd)

Individuals (cont'd)

Blaine Kerrmy, LA
 Blake A. Guidry c/o Joyce
 Quebodeaux, LA
 Blake Brothers, LLC c/o
 Walker Louisiana Prop, LA
 Blaine Quinn, LA
 Blake Brignac, LA
 Blanchard Louise Casteel, LA
 Bob Manuel, LA
 Bobby Burt, LA
 Bobby Lewis Potter, LA
 Bollinger Calcasieu, LLC, LA
 Bonnie Faye Rivers
 Drumwright, LA
 Boyd Dale Smith, LA
 Brad Fontenot, LA
 Bradley S. Vincent, LA
 Brady Saltzman, LA
 Brandon T. Wix, LA
 Brant Allan Parish, et al., LA
 Brenda Landreneau
 Johnston, LA
 Brennon H. Miller, LA
 Brent Joseph Hoffpauir, LA
 Brently J. Young, LA
 Brian Alan Guillory, et al., LA
 Brian Michael Simon, et al.,
 LA
 Brian Seymore, TX
 Brock Braune, LA
 Brown & Rozas Farms, Ltd.,
 LA
 Brown Family Farms, LLC, LA
 Browning-Ferris, Inc. c/o
 Republic Services, Inc.,
 Property Tax Department, AZ

Bruce & Gladys Guillory
 Farms, LA
 Bruce Mulvey, LA
 Bruce P. Hebert, et al., LA
 Bruchhaus Timberland, LLC,
 LA
 Bryan Adam Reed, LA
 Bryan K. Fontenot, LA
 Buford Douglas Terro, LA
 Buford John Vidrine, LA
 Burkman P. Fruge, Jr., et al.,
 LA
 Burlington Resources Oil &
 Gas Company, LP , OK
 Byng Hall Corporation, TX
 C. Perry, LA
 Calcasieu Land & Minerals,
 LLC c/o Joe Cooper, LA
 Calcasieu Maine Bank
 Trustee c/o Helene H. K.
 Garbarino, LA
 Calcasieu Parish Waterworks
 c/o District #7 Ward 6, LA
 Calcasieu Police Jury, LA
 Caleb Darbonne, LA
 Callie A. Martin, TX
 Calvin J. Ortego, Jr., et al., LA
 Cameron LNG, LLC, TX
 Camile Fontenot Soileau, et
 al., LA
 Camile Fontenot Soileau, LA
 Camp Pearl Ministries, LA
 Carl Bryan Aguillard, TX
 Carl Patrick Forrest, LA
 Carla Shari Juneau, et al., LA
 Carla Sue Haugen Fontenot,
 LA

Carmouche Family
 Properties, LLC, et al., LA
 Carol Ann Dougherty, LA
 Carol Duhon Mack, LA
 Carol Sue Fuselier Richard,
 LA
 Carolyn Corley Chafin, et al.,
 LA
 Carolyn Green Stanfield, LA
 Carolyn Jackson Gifford, et
 al., LA
 Carolyn Mareaulet,
 Carrie M. Iles, MS
 Cary Ross McKee, LA
 Cathy Dennison Seale, LA
 CDM Max, LLC, TX
 Chad Dearien, LA
 Chad J. Wright, et al., LA
 Chad Pottmeyer, LA
 Charlene Brady Hicks, LA
 Charlene Johnson, et al., LA
 Charles A. Ardoin, LA
 Charles A. McDaniel, et al.,
 LA
 Charles Alan Thibodeaux, LA
 Charles Atherton, LA
 Charles Cobbs, et al., TX
 Charles D. Vezinat, et al. c/o
 Beverly Vezinat, LA
 Charles Douglas Blocker, et
 al., LA
 Charles E. Martin, et al., TX
 Charles H. Lovett Jr., LA
 Charles Howell Atherton, et
 al., LA
 Charles Istre , LA
 Charles K. Bult, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Charles L. Daugereaux, et al.,
LA

Charles Lee Reed, et al., LA

Charles O. Daggett, Sr., et al.,
LA

Charles R. Houssiere, III, et
al., LA

Charlotte Gibson LaBarbera,
LA

Charlotte Hanks, LA

Charlotte K. Skinner, et al.
c/o Whitney Joubert, LA

Charmaine LeMaire, LA

Chase Felix McDaniel, LA

Chateau De Bon Reve, LLC,
LA

Chenee Brown, LA

Cheniere Pipeline Company,
TX

Cheryl Clostio, LA

Chester J. Fruge, Jr., LA

Chris J. Fontenot, LA

Christian Granger, et al., LA

Christina Ann Summerlin, et
al., LA

Christina Eve Duplechain, LA

Christina Suzanne Landry
Bergeron, LA

Christopher Daniel
McElhaney, et al., LA

Christopher R. Hine, et al., LA

Christopher Reeves, LA

Christopher Scott Cruze, LA

Christopher Wayne Spell, et
al., LA

Cindy Gillard, TX

Cindy Mae Corbello Corbello,
LA

Cindy Stovall Qualls, LA

Citgo Petroleum Corporation
c/o Property Tax, TX

CKX Lands, Inc., et al., LA

CKX Lands, Inc., LA

Clarence Joseph Landry, LA

Clarence Shirley, LA

Claude E. Guilbeau, et al., LA

Claude Rozas Farms, Inc., LA

Cleco Power, LLC, LA

Clements Lejeune, Jr., LA

Cleveland H. Vincent, LA

Clifford Botley, LA

Coby Perry, LA

Coby Sammy, LA

Cody James Landry, LA

Cody James McGee, LA

Cody Wayne Goodner, LA

Coffey Farms, LLC, c/o
Kenneth Nichols, LA

Cole Enterprises, LLC, LA

Como and LeFleur Concrete
Works, Inc., LA

Conoco, Inc., AZ

Corbello Investors, LP, LA

Corey James Doucet, LA

Corey Lalonde, LA

Corinne Elkins Barnes, et al.
c/o Gary Mark Barnes, LA

Corwin Ortego, LA

Costanza Bothers
Partnership, LA

Courtney Kounter, LA

Craig Allen Guidry, LA

Craig Daniel Cudd, et al., LA

Craig Thibadeaux, LA

Creel Memorial Gardens
Association, Inc., LA

Crest Natural Resources, LLC
c/o David Grassi, LA

Crooked Creek Land, LLC, et
al., LA

Cross Diversified
Development Corporation, et
al., LA

Crosstex Processing Services,
LLC c/o K. E. Andrews &
Company, TX

Crown Pine Reality 4, Inc. , LA

Crystal Dronet Guidry, LA

CTC Financial Investments,
LLC c/o Thomas G. Henning,
LA

CTJ Investments, LLC, LA

Curley Joseph Godeaux, Jr.,
LA

Cynthia Perry Gillard, TX

Cyprien Charles Johnson, LA

Daamon Coy Ball, LA

Dale K. Barbour, et al., LA

Damian B. Sonnier, et al., LA

Damian C. Zaunbrecher, et
al., LA

Danda Godwin, LA

Daniel Bruchhaus, LA

Daniel Dale Doucet, et al., LA

Daniel Edward Rogers, Jr., LA

Daniel Joseph Goodman, Jr.,
et al., TX

Danielle Nicole McGee, LA

Dann M. Thomasson, FL

Danny Ray Dickerson, et al.,
LA

Darrell Dean Miller, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Darrell Glinn Corbello, LA
Darrell Lee Boudreaux, LA
Darrell Wayne Attales, et al., LA
Darren L. Redlich, LA
Darrin James Hoke, et al., LA
Darryl J. Feucht, LA
Daryl Burckel, McNeese State University, LA
Dassell Richard Wildberger, et al., LA
David & Lee Ann Bush, LA
David Backland, LA
David Chad West, LA
David E. Guillory, LA
David Edmund Rose, et al., LA
David Devall, LA
David Fontenot, LA
David Keith Faul, et al., LA
David Ledarl, LA
David Lee Miller c/o David Earl Miller, TX
David Lynn Cudd, LA
David M. Airhart, LA
David Reinauer, LA
David Ryan Daigle, et al., LA
David Victor Currie, LA
David Wayne Qualls, LA
David William Sittig, et al., LA
Davie Lou M. McGee, MS
Dawn Ismerie Herrington, TX
Dean Lee Manning, et al., LA
Deanna Darbonne Habetz, LA
Deborah Fontenot Norris, LA

Deborah Leigh Herrmann Stutes, LA
Deborah Lynn B. McDaniel, LA
Debra Jenean Leslie Castle, LA
Debra Westlund Vaughan, LA
Del-Gwen Enterprises c/o Gwen Aguillard, LA
Delores Ann Burns Boyd Westlund, TX
Delta Investments Land, Timber & Minerals, LA
Dennis Glinn Corbello, LA
Department of Public Works, et al. c/o Mr. Edwards, LA
Derek Gammage, LA
Derouen Farms, Inc., LA
Derrick A. Tassin, et al., LA
Devall Enterprises, LLC, LA
Devena Ann Johnson Watson, et al., TX
Dewey Conrad Pearson, Jr., et al., TX
Diana Hubert Vincent, LA
Diane Ortego Brown, et al., LA
Dixon Family Timber, LLC, et al., LA
Don J. Phillips, Jr., LA
Don L. Murphy, LA
Donald A. Young, et al., LA
Donald C. Putnam, LA
Donald Joseph Elkins, LA
Donald Lee Lapoint, et al., LA
Donald Lee Lapoint, et al., LA
Donald R. Johnson, et al., LA
Donna E. Cormier, TX

Donna Kaye Frazier, LA
Donna McCormick, LA
Donnie & Jamie Elliot, LA
Donovan Lee Elliott, LA
Doreston J. Johnson, LA
Dorothy Lawton, LA
Dorothy S. Brooke, et al., NY
Dorothy Trahan Benoit, LA
Dorothy V. Clemons Family Revocable Trust, et al. c/o Dorothy V. Hames, CA
Dosite Samuel Perkins, II, et al., TX
Double T Farms, LLC, LA
Doug D'Aguill, TX
Douglas Luke LeJeune, LA
Douglas Wayne Britnell, et al., LA
Doyle Baccigalope, LA
Dr. Charles E. Dupre, LA
Dr. Richard J. Chafin, et al., LA
Driftwood LNG, LLC, et al., TX
Dubea Investments Wildhorse, LP, TX
Duckley Properties Inc, LA
Duke Parker, et al., LA
Dulance Reed, LA
Duplechain Family Partnership, LLC c/o Sandra Vidrine, LA
Dustin Keith Willis, et al., LA
Dutch Cove Cemetery, LA
Dwan LeBlanc, et al., LA
Dyrell Keith Stokes, LA
Earl Kenneth Duhon, LA
Eden Broussard, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Edmond Trahan, et al., LA
Edward Eugene Sumpter, LA
Edward Follett Bass, LA
Edward Lee Richard, LA
Edward M. Nichols, Jr., LA
Edward W. Elder, FL
Edwin Lafayette Rush c/o
John Allee, LA
EIP Calcasieu, LLC c/o
Cushman & Wakefield, CA
Elizabeth A. Dunn Nigro, et
al., LA
Elizabeth Ann Fontenot-
Olivier, et al. c/o Paul
Chamberlain, LA
Elizabeth Ann Ford, et al., LA
Elizabeth P. Goldsmith, et al.,
LA
Ellis P. Nealy Living Trust, NC
Eloi & Winnie Ortego Family
Trust c/o Elliot Ortego, LA
Eltie Marie Johnson, et al., LA
Elvin Floyd Vidrine, LA
Elward Kent Ardoin, LA
Elzie LeJeune c/o Keith D.
Boone, LA
Emery A. Doguet, LA
Emma Lillian Plauche, et al.,
GA
Emmer Florene Ritchey
Young, LA
Erbby James Perkins, Jr., LA
Erbon W. Wise, et al., LA
Eric J. Manuel, et al., KY
Eric Savant , LA
Erin Davison, LA

Ernest A. Houssiere, Jr., et
al., LA
Estate of August Botley c/o
Evain Guillory, LA
Eugene Gervis Perkins, LA
Eugene Pago, LA
Eugenia Gibson Dougherty,
LA
Eva B Abate, LA
F. Miller & Sons, LLC, LA
First National Farms, Inc., LA
Fletcher LaLande, LA
Floyd Beard, Jr., et al., LA
Floyd Mitchell Lacombe, et
al., LA
Floyd Williams Stains, Jr., et
al., LA
Fontenot Brothers Farm, LLC,
LA
Four T Management, LLC, LA
Fournerat Farms, LLC, LA
Frances Jane Nelson, LA
Frank A. LaBarbera, Jr., LA
Frank Gladney, et al., LA
Frankie Leslie Brown c/o
Tommy Brown, LA
Freeman A. Fontenot, CA
G & J Cattle Co., Inc., LA
G.G. Co, Gerald Gilbert, LA
Gary A. Miller, LA
Gary B. Ardoin, LA
Gary Dean Gehrig, et al., LA
Gary Lee Campbell, LA
Gary Mark Barnes, et al., LA
Gary R. Clevenger, LA
Gavin Taylor Fontenot, LA
Gaye Stoker, LA

Gene Michael Karam, LA
Geneva LeJeune Bellon, et
al., LA
George Glinn Corbello, Jr., LA
George Hardy Vincent, et al.,
LA
George L. Walton, Jr., et al.,
LA
George Mabry Anderson, LA
George R. Scalia, LA
George Thomas Mendoza, III,
et al., LA
Gerald E. Moore, et al., LA
Gerald Layne Landry, LA
Gerald P. Doega, et al., LA
Gerald Ray Hand, et al., LA
Gerald Wayne Hollier, et al.,
LA
Gilbert Wayne Hebert, et al.,
LA
Giles Glen Brown, LA
Gladyce Pleasant, LA
Glen D. Trouille, LA
Glen Howard Hetzel, et al.,
LA
Glenda Jo Bell Whatley, LA
Glenn & Pam Trouille, LA
Glenn John Cormier, et al.,
LA
Glenn Joseph Weidner, LA
Glenn Scott Seaford, et al.,
LA
Global Industries, Ltd., LA
Globe-Texas Company, et al.
c/o Walker LA Properties, LA
Gloria Opel D. Thomas, LA
Goldsmith Farms, LLC , LA

APPENDIX B (cont'd)

Individuals (cont'd)

Goosport Graveyard
Endowment, LA

Gordon Dupre, et al., TX

Gordon Reed & Associates,
Inc. c/o Gordon Reed, LA

Great Western Investment
Company, Inc., LA

Green Oak Cemetary
Association, Inc., LA

Greenbriar Realty
Corporation, MA

Gregory A. Wolfe, et al., LA

Gregory Allen Tyler, et al., CA

Gregory Lee Gros, III, LA

Gregory P. Manuel, LA

Gregory Proctor, TX

Gregory Proctor, TX

Gregory T. Jackson, TX

Guzzino Land, LLC, et al., LA

Gwen Scougale Brink, et al.
c/o Richard A. Smith, LA

Gwendolyn Blake Armistead,
LA

H. C. Drew Estate, LA

H. Holland, LA

Haiko Enterprises, LLC, LA

Halter-Calcasieu, LLC, MS

Hancock Timberland XI, Inc.
c/o Hancock Forest Mgt. and
Brian Schreckenghaust, NC

Harloss & Karen Hollak, LA

Harold A. Fuselier, Jr., et al.,
LA

Harold Francis Hermann, LA

Harold Guidry, Sr., LA

Harold Herman, LA

Harold J. Fall, et al., LA

Harold L. Charlie, LA

Harry Chamberlain, LA

Haudry Douget c/o Katina D.
Fontenot, LA

Hector A. Towes, LA

Heinen Farms, Inc. c/o Janet
Martel, LA

Helen R. Cooper, et al. c/o
Shirley Fruge Read, LA

Henry Tripp Sheumaker, LA

Herbert and Lula Marie
Fuselier Revocable Trust, et
al., LA

Herbert Rigmaiden, LA

Herman E. McFatter and/or
Era M. McFatter Revocable
Living Trust, et al., LA

Herman J. Manuel, LA

HHW Evangeline, LLC, LA

Highland Storage, LLC, LA

Hill Songs, LLC, LA

His Heirs, LLC, LA

Holcombe Properties, LLC, et
al., LA

Holton Dale Vincent, et al.,
LA

Home Rehab & Remodel of
SWLA, LLC, LA

Hope Kounter, LA

Horace Curtis Vincent, III, et
al., LA

Horace Joel Airhart, LA

Hosea M. Deshotels, Jr., LA

Howard Austin McClelland,
et al., KY

Hugh Cart, et al. c/o Anita C.
Reed, LA

Industrial Development of
the City of West Calcasieu

Port Harbor and Terminal
District, LA

Irma Elaine Abshire Huck, LA

Irvin & Phyllis Carbalan, LA

Irvin M. Carbalan, Jr., et al.,
LA

Irvine E. Clark, LA

Ivan D. Smith, et al., LA

J & P Land Development, LLC,
et al. c/o Jeff Pitre, LA

J. D. Fontenot & Sons c/o
John D. Fontenot, LA

J. Earl Touns Farms, LLC, LA

J. Edwin Dawdy, LA

J. F., LA

J. Lawton Company, LLC, LA

J.A.T.K.Y. LP, LA

J.D. Fontenot, LA

Jack Clifford Lalanne, III, et
al., LA

Jack E. Lawton, Jr. (Jack Sr.
DECEASED), LA

Jack Glenn Ortego, et al., MO

Jacob Seaford, LA

Jacquelyn Annette Thacker
Thibodeaux, LA

Jacques & Monica Joubert,
LA

James Allen Bonvillian, LA

James Alton Jackson, LA

James Brown, LA

James Charles McGehee, LA

James Craig Vizinat, LA

James Craig West, et al., LA

James Darold Moody, LA

James David Lyles, LA

James Donald Elder, FL

APPENDIX B (cont'd)

Individuals (cont'd)

James Douglas Guzman, LA
James E. Hebert, et al., LA
James Howard Daigle, Jr., LA
James Joey Bergeron, LA
James K. Peirrottie, et al., LA
James Keith Ellender, LA
James Kent Fruge, LA
James Kyle Long, LA
James Larry Lafleur, LA
James Monroe Stark, Jr., LA
James Murphy Duplechain, LA
James Oliver White, LA
James Owen Hebert, LA
James P. Lormand, LA
James Pierre Thibodeaux, LA
James R. Crooks, et al., LA
James Scott Reeves, AR
James T. Williams, LA
James V. Miller, et al., LA
James Victor Fontenot, LA
James W. Duke, CA
Jamie Prejean, LA
Janet Allen, LA
Janet Dowden, LA
Janet Fruge Gass Allen, LA
Janice Cormier Cole, LA
Janice Hardage, MS
Janice Law, et al., LA
Janina Sitnik Spell, et al., OH
Jardin Properties, Inc., et al., LA
Jared Broussard, LA
Jared H. Broussard, LA
Jason Brian Fuqua, et al., LA

Jason L. Young, LA
Jay Dale Sonnier, LA
Jay Forest Coker, LA
Jeanette Mathis, LA
Jeanette Rogers Benoit, LA
Jeffery Allen Corbello, LA
Jeffery Earle Landry, LA
Jeffery J. Derouen, LA
Jeffery Lee Ralston, et al., LA
Jeffery Wayne Totten, LA
Jenifer Lynette Dugas Anderson, et al., LA
Jennifer Culp Warren, TN
Jennifer Elaine Westlund Hoffpauir, LA
Jennifer Johnette Mathews, LA
Jennifer Lynette Istre Benton, LA
Jeremy Dugas, et al., LA
Jeremy J. Landreneau, et al., LA
Jerrit George, TX
Jerry Dwayne Helms, LA
Jerry Dwayne Robinson, et al., LA
Jerry Griffin Snell, LA
Jerry Lynn Bratcher, et al., LA
Jerry Lynn Key, LA
Jerry W. Fontenot, LA
Jesse V. McMorris, et al., LA
Jessica Granger, et al., LA
Jessica Lynn Trahan Buck, LA
Jessie C. Fontenot, LA
Jesus Is Lord Ministries, Inc. c/o Terry LaFleur, President, LA

Jill Richard, LA
Jill Suzanne Longenbaugh Fills, LA
Jimmie & Elisha Coruts, LA
Jimmie Ann Meaux McLean c/o John B. Meaux, LA
Jimmie Wayne Abshire, et al., LA
Jimmy Gonzales, LA
Joan Marie Ribbeck Caldwell, et al. c/o Mary Ann Ribbeck Hultquist, TN
Joanna Marie Bertran Guilbeau c/o Louise Mary Bertrand, LA
Joanna Marie Davis-Roofner, LA
Jodi Carol Bourgeois, LA
Jody & Rhonda Kyle, LA
Jody Lynn Vincent, LA
Joe Road Miller Partners, LLC, c/o Jeffery Wayne Pitre, LA
Joel Edward Langford, et al., LA
Joey & Chris Bergeron, LA
Joey & Kaila Broussard, LA
Joey & Kaila Broussard, LA
John A. Trouille, et al. c/o Alan Trouille, LA
John Alton Currie, LA
John Austin Young, et al., LA
John Bennett Vidrine, et al., LA
John Benny Vidrine, LA
John Benoit, LA
John Brent Meaux, LA
John Carl Thomson, et al., LA
John Carl Thomson, LA

APPENDIX B (cont'd)

Individuals (cont'd)

John David Landreneau, et al., LA

John E. Landry, LA

John F. Davis Trust, IA

John Fontenot, et al., LA

John H. Buller, LA

John Hancock Life Insurance Company (USA) c/o Hancock Forest Mgt. and Brian Schreckenghaust, LA

John Harold Lovejoy, LA

John Houston Pleasant, LA

John I. Briscoe, et al., LA

John I. Fowler c/o Mary M. Tocquigny, TX

John Lee Dourousseau, Jr., LA

John O. Sneve, GA

John Paul Good, Jr., VA

John Paul Lenhart, LA

John Randall Allee, LA

John Richard Drumwright, LA

John Sebastian Trares, Jr., LA

John Sherman Fallis, et al., LA

Johnnie Pleasant, LA

Johnny Dean Strickland, Sr., LA

Johnson Family Farm, LLC, et al., LA

Johnson Family Trust c/o Thomas Amil Johnson, Trustee, VA

Jolene Lynete Logue Sonnier, LA

Jon Manns, LA

Joseph Anthony Reed, et al., LA

Joseph Aric Reed, LA

Joseph Bruce Fontenot, LA

Joseph C. Jaubert, LA

Joseph Chad Smith, LA

Joseph Eaglin, LA

Joseph Frank Haiko, LA

Joseph Isreal Coleman, et al., LA

Joseph Leroy Soileau, et al., LA

Joseph Raymond Burnett, et al., LA

Joseph Ricky Bergeron, LA

Joseph Ronald West, LA

Joseph Timothy Tate, LA

Josh Herman, LA

Joshua David Herman, et al., LA

Joshua John Wooten, et al., LA

Joshua Ray Lozada, et al., LA

Josua Ryan Domaingue, LA

Joyce Quebodeaux, LA

JP-8, LLC, LA

JRV Investments Limited, LA

Juan Carlos Vaughn, LA

Juanita Savoy Ardoin, LA

Judith Ann McClelland, LA

Judith Frances Killian-Portie, LA

Judith Rougeau c/o Paul Wilson Rougeau, LA

Judy R. Castle, et al., LA

Judy Verle Landry, LA

Julie Elizabeth Field Domaingue, LA

Julius Thomas Johnson, LA

June Bugs, Inc. c/o Greg Manuel, LA

Justin Cade Thibodeaux, LA

Justin James Pearson, LA

Justin Lee Jensen, et al., LA

Justin Vaughan, LA

Justin William Greek, LA

Kalee Nixon, TX

Katherine Elizabeth Johnson Jackson, TX

Katherine Krause Blake, et al., LA

Kathleen Jackson Bosley, et al., LA

Kathleen Mcmurry Stone, LA

Kathleen Pleasant Wright, LA

Kathleen Rose Bosley-Jackson, et al., LA

Kathryn Jean Beatty-House, et al., LA

Kathy Lynn McBride Woodard, LA

Keisha Lashawn Guillory, LA

Keith A. Heinen, LA

Keith N. Stafford, et al., LA

Kelly Annette Dugas-Keers, et al., LA

Kelly Marie Fuqua, et al., LA

Ken Lyons, LA

Kenneth D. Cole, LA

Kenneth Gerald Merchant, et al., LA

Kenneth Guidry, LA

Kenneth Howard Nichols, LA

Kenneth James Reed c/o Edward F. Reed, LA

Kenneth James, LA

Kenneth Karl Strother, LA

Kenneth Paul Lyons, et al. c/o Lyons Real Estate, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Kenneth Paul Sonnier, LA
Kenneth Paul Sonnier, LA
Kenneth R. Parker, LA
Kenneth Teague, PWS, TX
Kenneth W. McCown, et al., LA
Kenneth Wayne Thornton, et al., LA
Kent Moss, LA
Kerry Arthur House, LA
Kevin Fills, LA
Kevin James Comeaux, LA
Kevin Michael Fills, LA
Kevin Paul Fontenot, LA
Kevin Wayne Mangrum, LA
Kim Human, LA
Kimberly Dawn Cole Herman, LA
Kinder Canal Company, LA
Kinder Morgan Louisiana Pipeline, LLC c/o Property Tax Department, TX
Kinder Sand Company, Inc., LA
Kirby Hebert, LA
Kleat, LLC c/o Brian Manuel, LA
Klein & Miller, LLC, LA
KPLC, LLC, AL
Krause & Managan Lumber Company, LA
Krielow Farms, Inc., LA
Kristie Ann Bullington Mangrum, LA
Kristin Monique Farr-Broussard, MS
Krystal Renee Thompson, LA

Kyle Dale Enicke, et al., LA
L & B Family, LLC, et al., LA
L B & J Prather Family, LLC, LA
L&H Partnership, LA
L. C. Melancon, LA
Lake Charles Harbor & Terminal District, LA
Lake Charles Naval Stores Company, LA
Lamont Vige, LA
Lana Potter Davis, LA
Langley Properties, LLC c/o Jerome Langley, LA
Larmat, LLC, LA
Larry Charles Fournierat, et al., LA
Larry D. Williams, TX
Larry Hunt Wise, et al., LA
Larry Melvin Reed, et al., LA
Larry Paul LeJeune, et al., LA
Larry R. Wittge, et al., LA
Lashawnda Guillory, LA
Laura Dixon, LA
Laverne Clostio, LA
Ledoux Farms, Inc., LA
Lee Bruce McGee, et al. c/o S. McGee Revocable Living Trust, LA
Lelia M. Fontenot, LA
Lena Argin Baber Henning, LA
Leo Halverson, LA
Leon Lawrence Currie, II, LA
Leonard Eaglin, LA
Leonard James Manuel, LA
Leroy Joseph Miller, et al., LA

Les Hanson, LA
Lesa Ann Kathleen LaGrane, TX
Level 3 Communications, LLC, CO
Levi Derek Rodriguez, LA
Lillian F. Fontenot, et al., LA
Linda Ann Stroder, et al., LA
Linda G. Davis, NC
Linda Larson, LA
Lindsey Aucoin Family Trust, Cynthia Aucoin Capron, TX
Lindsey J. Aucoin, et al., LA
Lionel Joseph Mestayer, Jr., LA
Little Indian Bayou, LLC, et al. c/o Wallace Nichols, LA
LLC Telcom Properties, LA
Llewellyn Edward Kyle, et al., LA
Lloyd E. Oakley, LA
Lloyd Fisher Reeves c/o Lloyd and Donna Reeves, LA
Lloyd Onkla, LA
Lonnie Harper, LA
Lonnie Soileux, LA
Lorena Cachin Darbonne, LA
Loretta Fladley, LA
Loretta Marie Benoit Findley, LA
Lori Gardner, LA
Lorraine LeJeune Bertrand, LA
Louisiana Farm and Livestock Company, Inc., LA
Louisiana Pacific Land & Water Conservancy, LA
LTP Partnership, LP, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Lucas Troy West, LA
Lucille M. Duhon, et al., LA
Luis Enrique Carriaga, LA
Luke Gerard LeBlanc, LA
Luther W. Dickerson, et al., LA
M & G Farms, LLC, LA
M. G. Christian, LA
M. P. Erwin Estate, et al., LA
M. P. Lafosse, LA
Madeline Johnson Villarrubia, LA
Madylene Philen Gregory, FL
Magnus McGee, LA
Malcolm Lyle Testamentary Trust for Kale Crain, LA
Malcolm Lyle Testamentary Trust for Rachel Crain, LA
Mandy & Johnathan Thomas, LA
Mangus McGee, LA
Mamou Seed Rice Company, LA
Marc Kenneth Savoy, LA
Margaret Bourque Black, et al., LA
Margaret Ceasar, LA
Margaret Ealin F. Borden, LA
Margaret Helen Clevenger, LA
Margaret Helen Lovejoy, LA
Margaret Theresa P. Johnson, et al., LA
Maria Rene Sepulveda, LA
Marianne Herman Reider Espinosa, LA
Marie Edna Gaspard, LA

Marie Teres Gillard Johnson, LA
Marilyn G. Lipton Revocable Trust U/A Dated December 5, 1986, et al., MO
Marilyn Jean Valentine Hankins, LA
Marilyn Jean Valentine Testamentary Trust, LA
Marilyn Ruth Vallee Dawdy, LA
Marion Gayle Thibodeaux, LA
Mark A. And Mary A. Bonnin Lyons Revocable Living Trust, LA
Mark Anthony Broussard, et al., LA
Mark Rougeau, LA
Marla Chin, TX
Marlene Manuel, LA
Mars Investment, LLC, LA
Marshall Cody Smith, et al., LA
Marshall Cody Smith, LA
Martha L. Gillman, et al. c/o Donald Ledoux, Sr., LA
Mary Ann Hebert Daigle, et al., LA
Mary Ann Ribbeck, TX
Mary Catherine Daniels, LA
Mary Earline Leonard, LA
Mary Elizabeth Lovejoy, LA
Mary Elizabeth Olsen Duke, CA
Mary G. Feucht, LA
Mary Ida Ancelet Terro, LA
Mary Magdalyn Lalonde Vidrine, LA
Mary Magdeline Deshotel, LA

Mary Matt Fruge, LA
Mary Nell Miller Fontenot, LA
Mary Patricia P. Ortego, LA
Mary Ruth Corbello, LA
Mary T. Leblanc, LA
Mary Theresa Netherland Manuel, LA
Matt Scott Cormier, LA
Matthew James Sonnier, LA
Matthew L. Vincent, LA
Matthew Linton Vincent, et al. c/o George Hardy and Nina Vincent, LA
Matthew Odom, LA
Matthew Ramsey Vincent, et al., LA
Maxie Langley, LA
Maxwell John Duplechin, LA
McClelland Farm Properties, LLC, LA
McCown Investors, LP c/o Kenneth McCown, LA
McManus Construction, Inc., LA
Medora Duplechin Johnson c/o Geneva Bellon, LA
Meghan Kimberly Reece Lyons, NC
Meguel Deshotel, et al., LA
Melba Lynette Fisher, LA
Melinda LeJeune c/o Wedna K. LeJeune, LA
Melissa Darden, LA
Melissa Marie Darden, LA
Melissa Roberts Long (DECEASED), LA
Melissa Smith, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Merry Fruge Mott, LA
Michael George Davis, et al.,
LA
Michael Gregory Hicks, LA
Michael J. Tezeno, et al., LA
Michael Joseph Ange, LA
Michael L. Vidrine, LA
Michael Pickett, et al., LA
Michael R. Cagle, et al., LA
Michael Scott Manuel, LA
Michael Shane Fontenot, TX
Michael Stockholm, et al., LA
Michael Stockwell, LA
Michael Tritico, LA
Michael W. Guidry, LA
Michelle Marie Keever
Landry, LA
Milissa Person Broussard, LA
Mitchell Leroy Soileau, LA
Mitchell Paul Landry, et al.,
LA
Mollie Lee Barnes, LA
Mona Rae Brown Guidry, LA
Monica Lynn Lessard
Duplechin, LA
Monita Savoy Benoit, LA
Morel D. Fontenot, et al., LA
MPIC, LLC, et al., LA
MSG Property, LLC, LA
Nathalie Hirsch Trust, LA
Nathan Lyle Dodson, LA
Nathaniel Ribinson, LA
Nealy Living Trust of 1992
c/o Dr. Barry Nealy, NC
Ned C. Barnes, LA
Neil LeJeune, et al., LA

Neil Randall Crain, LA
Nicholas Ryan Fontenot, LA
Nick Lafler, LA
Nola Dean Derouen
Bourgeois, LA
Norbert Young, et al., LA
North Sulphur Building
Association, Inc. c/o Donald
Joseph Cubbage, LA
Obed Claude Pleasant, LA
Olin Corporation, MO
Olivia Katherine Pruett, LA
Olline C. Callens c/o Christy
Jane Callens, LA
Omega Energy USA, LLC, FL
One Grasso Plaza, LLC c/o
Greenberg Development
Company, Edward Kohn, MO
O'Neal J. LeBlanc, Jr., LA
Opelousas St. Landry Realty
Company, LA
Orleans Run, LLC c/o Clifton
D. Guidry, LA
Ouida Louise Williams, LA
Palermo Land Company, Inc.,
LA
Palvest, Inc., LA
Pamela Gail McClelland
Thibodeaux, LA
Pamela Gail McClelland
Thibodeaux, LA
Pamela Haynes, LA
Pamela Jean Large
Constance, LA
Pamela Louise Lebert
Mulvey, LA
Parker Lee Marsh, et al., LA
Patricia Ann Breaux c/o
Robert C. McFatter, LA

Patricia Ann Easley Reed, LA
Patricia Ann Renard Fusilier,
LA
Patricia Ann Scott Broussard
Huren, LA
Patricia Huren, LA
Patrick Fusilier, et al., LA
Patrick Jean Fruge, et al. c/o
Irene Fruge, LA
Patrick Norman Blanchard, et
al., LA
Patsy Lyles Cavenah, LA
Patty Flavin, LA
Paul Alan Brown, et al., LA
Paul C. Heinen, et al., LA
Paul Johnson, TX
Paul Wayne Stewart, et al.,
LA
Paula Guidry, LA
Paula Vidrine, LA
PBA Properties, LLC, et al. c/o
Walker Louisiana Properties,
LLC, LA
Peggy Brown Perkins, LA
Peggy Jennings, LA
Percy Guillory, Jr., LA
Perkins Living Trust For 1995,
LA
Peter Beryer, LA
Peter Clayton Daigle, LA
Peter Stuart Berzas, et al., LA
Philip Wesley Quinn, et al.,
LA
Phillip Robertson, et al., LA
Phyllis Carbalan, LA
Phyllis Moseley Fontenot, LA
Pitre-Todd, Inc., LA

APPENDIX B (cont'd)

Individuals (cont'd)

Prairie Land Company, et al.,
LA

Preston J. Stelly, Jr., et al., LA

Preston L. Dartez, Sr., LA

Priscilla Fontenot Daigle, LA

R E Washington
Construction, LLC, et al. c/o
Roy Emile Washington, III, LA

R. Miller, et al., LA

R.O. Farms, Inc., LA

Rachel Crain Corley, LA

Raggio Family Farms, Inc., LA

Rahn Lanier Drost, et al., LA

Raleigh Newman, et al., LA

Ramon G. Vina, et al., LA

Ramona Anne Daigle, LA

Randall K. Bellon, et al., LA

Randy Broussard, et al., LA

Randy L. Gardner, TX

Randy Mighael Buck, LA

Randy Ray Gros, LA

Raphael Keith Bertrand, et
al., LA

Raymond Joseph Stein, LA

Raymond Klumpp Farm, Inc.,
LA

Raymond Ray Klumpp, et al.,
LA

Raymond Rigmaiden, et al.
c/o Herman Ridmaiden, LA

Raymond Roy Owens, LA

Raymond Wallace Knapp, TX

Rayonier Gulf Timberlands,
LLC, FL

Rayonier Louisiana
Timberlands, LLC c/o
Rayonier Tax Services, AL

Rayonier TRS Louisiana
Operations, Inc. Attn: Land
Records Department, FL

Rayu Ventures, LLC, TX

Rebbekah Jean Green Ashley,
LA

Rebecca Chapman Cormier,
LA

Rebecca Denise Chapman
Lovejoy, LA

Rebecca E. Terro
Thibodeaux, LA

Reed Farming Partnership
c/o Lisa R. Fuselier, LA

Regena Faye Spradley
Nichols, et al., LA

Reginald Sonnier, LA

Renella Watson, LA

Reston Jude Fall, LA

Rhodes Animal Clinic, LA

Rhonda Drewe M. Dewbre
2008 Trust, et al., TX

Rhonda Gail Lyons Stokes, LA

Richard B. Howell, LA

Richard Edward Pultz, LA

Richard George Fritzinger, Jr.,
LA

Richard John Lightfoot, et al.,
LA

Richard Ledoux Farms, LLC,
et al., LA

Richard LeDoux, LA

Richard Michael Manuel, LA

Richard Scott Dowden, LA

Richard Wayne
Frauenberger, LA

Rita Beth Ellender, LA

Roanoke Oil & Gas, LLC, MS

Robert Marshall, TX

Robert Alan Gros, LA

Robert Anthony Conner, et
al., LA

Robert Blake Manuel, LA

Robert Constance, LA

Robert D. Miller, et al., LA

Robert Dean Landry, LA

Robert Eastin, Jr., LA

Robert Floyd Bruce, LA

Robert H. Houssiere, TX

Robert Howard Landry, LA

Robert Ivan Colbert, Jr., et
al., MD

Robert John Bertrand, et al.,
LA

Robert Joseph Constance, et
al., LA

Robert Keith Heinen, LA

Robert L. Stacy, III, LA

Robert L. Streitmatter, LA

Robert Lee Boudreaux, LA

Robert Michael Green, LA

Robert O. Stoker, LA

Robert T.J. Johnson

Rodger Allen Sumpter, et al.,
LA

Rodney L. Driggers, LA

Rodney Lee Williams, et al.,
LA

Rodney Westlund, TX

Roger & Claire Fontenot , LA

Roger Dean Vincent, LA

Roger G. Burgess, LA

Roger L. Miller, Jr., LA

Roger Vincent, LA

Romeo & Meme Espinosa, LA

Romeo Espinosa, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Ronald Blaise Istre, LA
Ronald J. Arnaud, LA
Ronald J. Doguet, et al., LA
Ronald M. Coley, et al., LA
Ronald Michael Craiger, Jr., LA
Ronald Phillip Bae, LA
Ronald Roy Helmer, et al., LA
Ronald Sonnier, et al., LA
Ronald Vaughn, LA
Ronald Wade Vaughan, LA
Ronnie Doucet, LA
Ronny Lane Wagnon, et al., LA
Rosa East Clostio, LA
Rosalind Kaye LaBarbera, LA
Rosaline L. Medford, LA
Rose Marie Ribbeck Courville, et al., LA
Rose Marie Ribbeck Courville, LA
Roy O. Manuel, et al., LA
Roy O. Manuel, LA
RTO, LLC, et al., LA
Ruby Ann G. Guillory, LA
Ruby Ceaser Soileau, LA
Ruby L. Heintz Estate, LA
Rudy Garland Woodard, LA
Russell A. Stockwell, LA
Russell Burleson, LA
Russell Joseph Stutes, Jr., LA
Russell Joseph Stutes, Sr., LA
Russell Lee Miller, LA
Russell Wade Burleson, LA
Rusty Vincent, LA

Ruxton Blaise Istre, LA
Ryan Lee Johnson, LA
Ryan Wilder Durand, LA
S & W Zaunbrecher Farms, LLP, et al., LA
S&P Farms, LLC c/o Pamela B. Berzas, LA
S. McManus, LA
Sabine Uplift Mineral Corporation, LA
Samuel Fontenot, LA
Samuel Leo Olsen, II, LA
Samuel Roy Miller, LA
Sanctuary of Lake Charles, LA
Sandia Estates, LLC c/o Henry Charles Misse, LA
Sandra L. S. Bergeron, LA
Sandra Olsen Matherne, LA
Sandy Lake, LLC, LA
Sara N. Doucet, LA
Savoy Investments, LLC, c/o David Savoy, LA
Schumacher Briscoe Farm, LA
Scott David Manuel, et al., LA
Scott Edwin Sandoz, LA
Serpent Bayou Recreational Properties, LLC, LA
Shane D. Zaunbrecher, et al., LA
Shannon Blake Richard, et al., LA
Sharon Gayle Bennett Stutes, LA
Shea Marette LeDoux, LA
Sheile & Ronnie Granger, LA
Shelly Guillory, LA

Shelton H. and Karena M. Johnson Revocable Living Trust, et al., LA
Shelva D. Vidrine, LA
Sherman T. Fontenot, et al., LA
Sherril Doega, LA
Sherrill Louise Lynch, LA
Sherry Richard, LA
Shirley F. Read, et al. c/o Ethelyn Duplechain, LA
Showalter A. Knight, Jr., LA
Skelton Pete c/o John Pete, LA
Sophie Thompson, LA
Stacey Deville, et al., LA
Stanley Primeaux, et al., LA
Stephanie Elaine O'Quinn, LA
Stephanie Jackson, MS
Stephen Albert Reeves, TX
Stephen J. Roger, et al., LA
Stephen Kent Vallette, LA
Stephen Mark McMurry, LA
Stephen Thomas Buster, et al., LA
Stephen W. Manuel, LA
Steven Roger Huck, et al., LA
Stream Family LP, LA
Stream Family Trust, LLC, LA
Sulphur Group, LLC, LA
Susan Kathleen Ferriss, LA
Takako Weydling, LA
Tammy Renee Bellon LaFleur, LA
Tannia Green Chasson, LA
Tara W. Sullivan, LA

APPENDIX B (cont'd)

Individuals (cont'd)

TechnipFMC (fna Global Industries, Ltd.), TX
 Teddy J. Bolton, et al., LA
 Terrance Wade Boudoin, LA
 Terrell Brent Manuel, AL
 Terry D. Ardizzone, LA
 Terry Eugene Jones, et al., LA
 Terry Lynn White, LA
 Tessie Manuel, LA
 Texas Eastern Transmission Corporation Attn: Property Tax Department, TX
 Texas Gas Transmission, LLC, KY
 The Donald W. Fuselier and Patty A. Fuselier Revocable Living Trust, et al., LA
 The Doty Trust, et al., WA
 The Johnson Living Trust, et al., LA
 The Pomeroy Trust, LLC, CA
 The Wanda Geraldine Cole Cunningham Special Needs Trust c/o Trina Watson, LA
 Theresa Jean Scott, LA
 Thomas E. Barry, LA
 Thomas E. Lemoine, TX
 Thomas Edward McDaniel, LA
 Thomas G. Clostio, LA
 Thomas Hubert Courville, LA
 Thomas Jonathan Boagni c/o Edda H. Whaley, LA
 Thomas L. Richard, LA
 Thomas Mayes , LA
 Thomas William Cassia, LA
 Tiffany K. Basco, LA

Tillman Sylvester, TX
 Tim Fontenot, LA
 Tim Haynes, LA
 Timothy J. LeJeune, LA
 Timothy McFarlain, LA
 Timothy Stewart Fontenot, LA
 Timothy Z. Young, LA
 Tinnie Edward Gillard, TX
 Tiqua Jude Manuel, LA
 Todd Kevin Gaspard, et al., LA
 Todd Stein, LA
 Tom & Madelaine Landry, LA
 Tony Theriot , LA
 Tony Wade Thibodeaux, LA
 Troups Dries, LLC, LA
 Tower Land Company, LLC, et al., LA
 Trace Lee Fogleman, et al., LA
 Tracey Lynn Bellon Veillon, LA
 Tracy Mitchell Buller, LA
 Transco Gas Pipeline Corporation c/o Ad Valorem Tax Dept., OK
 Trey Stampley, LA
 Trina Moss-D'Aquila, TX
 Tristar Louisiana Timberlands, LLC, LA
 Troy Brannon, Jr., et al., LA
 Trudy Guidry Young, et al., LA
 Tunie Dunaway, LA
 Turk P. Stein, LA
 Ty Bourgeois, LA
 Tyler Pederson, LA

Tyler Wayne Broussard, LA
 U. S. Fish & Wildlife Service c/o Department of the Interior, CO
 United States of America, in Trunt for Coushatta Tribe of Louisiana c/o Bureau Indian Affairs, VA
 USA c/o Bureau of Land Management, DC
 Valley Vidrine, Jr., et al., LA
 Valley Vidrine, Jr., LA
 Verna Jean Welch Istre, LA
 Vernon Jack Tanner, LA
 Verona Courville, LA
 Verona McGee Courcille, LA
 Vicki Lynn Fontenot Buller, LA
 Vicki Moneah Bourgeois, LA
 Virginia B. Wells c/o Henry Tyler, LA
 Virginia Susan Ellender Williams, LA
 Vito Anthony Tramonte, LA
 Vivian Ann Savoy Elkins, LA
 Vivian Carol Holman May, LA
 Von Paul Guilbeau, et al., LA
 W J Gayle and Sons, Inc., LA
 W. E. Heinen Farms, Inc. c/o Debra Courville, LA
 W. S. Kingrey, Inc., LA
 Wallace Howard Nichols, et al., LA
 Wallace J. Gros, Jr., LA
 Wallace J. Gros, Sr., LA
 Walter H. Tietje & Sons, Inc. c/o Robert W. Tietje, LA
 Warren Frey, LA

APPENDIX B (cont'd)

Individuals (cont'd)

Warren W. Hoag, III c/o
Warren Custodian, LA
Wedna Vidrine, et al., LA
Wendy E. Van Schaick, LA
Wesley Ann L. Harvey, LA
Wesley Michael Hughes, LA
Westlake Methodist Church
of Lake Charles, LA
Whitney Boudreaux, LA
Wilba Vezina Farm Trust, LA
Wilba Vezina, LA
Wilbert McClinton, III, et al.,
LA
Wilda Rose Klumpp
Fontenot, LA
Will Fediw, LA
Willard W. A. Fuselier, LA
William Alan Basden, et al.,
LA
William B. Lawton Family LP,
et al., LA
William Bruce Mulvey, LA
William Carl Nabours, LA
William Doherty, Jr., LA
William E. Lenhart, III, LA
William J. McInnis, et al., WV
William Mitchell Perkins c/o
William L. Perkins, LA
William Monroe Leblanc, LA
William Nelson Green, Jr., LA
William Stacy Sansom, LA
William Taylor Lyles, LA
William V. Conover, et al. c/o
William V. Conover II, TX
William Verdice Jackson, et
al., LA
Windy Ona Olsen, LA

Winnie Joyce Richard
Perkins, LA
Winston J. Frey, LA
WKT Properties, LA
Woodbrook, Inc., LA
Wynema Kay Robinson, et
al., TX
Yo-R & Arline Loug, LA
Yvonne Bebee, LA

APPENDIX C

DRIFTWOOD PLAN AND PROCEDURES

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Driftwood LNG LLC and Driftwood Pipeline LLC
Docket No. CP17-__-000
Docket No. CP17-__-000

Appendix 1D-1
Project Specific Plan and Procedures




EROSION CONTROL, REVEGETATION, MAINTENANCE and WETLAND-WATERBODY MITIGATION PROCEDURES

DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC

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			26101-000-G65-GER-00003				REV.
			BECHTEL DOC. NO.				000
			Page 1 of 49				

NOTE: Where any proposed modifications or deviations to the FERC May 2013 Plan and Procedures exist, DWLNG and DWPL have inserted text boxes and necessary information to note exceptions or deviations. Some sections are not applicable to either the LNG facility and/or the pipeline, but those sections have not been specifically called out as exceptions.

DWLNG and DWPL Project Upland Erosion Control, Revegetation, and Maintenance Plan

I. APPLICABILITY

- A. The intent of this Plan is to assist project sponsors by identifying baseline mitigation measures for minimizing erosion and enhancing revegetation. Project sponsors shall specify in their applications for a new FERC authorization and in prior notice and advance notice filings, any individual measures in this Plan they consider unnecessary, technically infeasible, or unsuitable due to local conditions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in this Plan (or the applicant's approved plan). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;
2. is necessary because a portion of this Plan is infeasible or unworkable based on project-specific conditions; or
3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on wetland and waterbody systems are addressed in the staff's Wetland and Waterbody Construction and Mitigation Procedures (Procedures).

II. SUPERVISION AND INSPECTION

A. ENVIRONMENTAL INSPECTION

1. At least one Environmental Inspector is required for each construction spread during construction and restoration (as defined by section V). The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.
2. Environmental Inspectors shall have peer status with all other activity inspectors.
3. Environmental Inspectors shall have the authority to stop activities that violate the environmental conditions of the FERC's Orders, stipulations of other environmental permits or approvals, or landowner easement agreements; and to order appropriate corrective action.

B. RESPONSIBILITIES OF ENVIRONMENTAL INSPECTORS

At a minimum, the Environmental Inspector(s) shall be responsible for:

1. Inspecting construction activities for compliance with the requirements of this Plan, the Procedures, the environmental conditions of the FERC's Orders, the mitigation measures proposed by the project sponsor (as approved and/or modified by the Order), other environmental permits and approvals, and environmental requirements in landowner easement agreements.
2. Identifying, documenting, and overseeing corrective actions, as necessary to bring an activity back into compliance;
3. Verifying that the limits of authorized construction work areas and locations of access roads are visibly marked before clearing, and maintained throughout construction;
4. Verifying the location of signs and highly visible flagging marking the boundaries of sensitive resource areas, waterbodies, wetlands, or areas with special requirements along the construction work area;
5. Identifying erosion/sediment control and soil stabilization needs in all areas;
6. Ensuring that the design of slope breakers will not cause erosion or direct water into sensitive environmental resource areas, including cultural resource sites, wetlands, waterbodies, and sensitive species habitats;
7. Verifying that dewatering activities are properly monitored and do not result in the deposition of sand, silt, and/or sediment into sensitive environmental resource

areas, including wetlands, waterbodies, cultural resource sites, and sensitive species habitats; stopping dewatering activities if such deposition is occurring and ensuring the design of the discharge is changed to prevent reoccurrence; and verifying that dewatering structures are removed after completion of dewatering activities;

8. Ensuring that subsoil and topsoil are tested in agricultural and residential areas to measure compaction and determine the need for corrective action;
9. Advising the Chief Construction Inspector when environmental conditions (such as wet weather or frozen soils) make it advisable to restrict or delay construction activities to avoid topsoil mixing or excessive compaction;
10. Ensuring restoration of contours and topsoil;
11. Verifying that the soils imported for agricultural or residential use are certified as free of noxious weeds and soil pests, unless otherwise approved by the landowner;
12. Ensuring that erosion control devices are properly installed to prevent sediment flow into sensitive environmental resource areas (e.g., wetlands, waterbodies, cultural resource sites, and sensitive species habitats) and onto roads, and determining the need for additional erosion control devices;
13. Inspecting and ensuring the maintenance of temporary erosion control measures at least:
 - a. on a daily basis in areas of active construction or equipment operation;
 - b. on a weekly basis in areas with no construction or equipment operation; and
 - c. within 24 hours of each 0.5 inch of rainfall;
14. Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts;
15. Keeping records of compliance with the environmental conditions of the FERC's Orders, and the mitigation measures proposed by the project sponsor in the application submitted to the FERC, and other federal or state environmental permits during active construction and restoration;
16. Identifying areas that should be given special attention to ensure stabilization and restoration after the construction phase; and

17. Verifying that locations for any disposal of excess construction materials for beneficial reuse comply with section III.E.

III. PRECONSTRUCTION PLANNING

The project sponsor shall do the following before construction:

A. CONSTRUCTION WORK AREAS

1. Identify all construction work areas (e.g., construction right-of-way, extra work space areas, pipe storage and contractor yards, borrow and disposal areas, access roads) that would be needed for safe construction. The project sponsor must ensure that appropriate cultural resources and biological surveys are conducted, as determined necessary by the appropriate federal and state agencies.
2. Project sponsors are encouraged to consider expanding any required cultural resources and endangered species surveys in anticipation of the need for activities outside of authorized work areas.
3. Plan construction sequencing to limit the amount and duration of open trench sections, as necessary, to prevent excessive erosion or sediment flow into sensitive environmental resource areas.

B. DRAIN TILE AND IRRIGATION SYSTEMS

1. Attempt to locate existing drain tiles and irrigation systems.
2. Contact landowners and local soil conservation authorities to determine the locations of future drain tiles that are likely to be installed within 3 years of the authorized construction.
3. Develop procedures for constructing through drain-tiled areas, maintaining irrigation systems during construction, and repairing drain tiles and irrigation systems after construction.
4. Engage qualified drain tile specialists, as needed to conduct or monitor repairs to drain tile systems affected by construction. Use drain tile specialists from the project area, if available.

C. GRAZING DEFERMENT

Develop grazing deferment plans with willing landowners, grazing permittees, and land management agencies to minimize grazing disturbance of revegetation efforts.

D. ROAD CROSSINGS AND ACCESS POINTS

Plan for safe and accessible conditions at all roadway crossings and access points during construction and restoration.

E. DISPOSAL PLANNING

Determine methods and locations for the regular collection, containment, and disposal of excess construction materials and debris (e.g., timber, slash, mats, garbage, drill cuttings and fluids, excess rock) throughout the construction process. Disposal of materials for beneficial reuse must not result in adverse environmental impact and is subject to compliance with all applicable survey, landowner or land management agency approval, and permit requirements.

F. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in this Plan and/or required by the FERC's Orders.

1. Obtain written recommendations from the local soil conservation authorities or land management agencies regarding permanent erosion control and revegetation specifications.
2. Develop specific procedures in coordination with the appropriate agencies to prevent the introduction or spread of invasive species, noxious weeds, and soil pests resulting from construction and restoration activities.
3. Develop specific procedures in coordination with the appropriate agencies and landowners, as necessary, to allow for livestock and wildlife movement and protection during construction.
4. Develop specific blasting procedures in coordination with the appropriate agencies that address pre- and post-blast inspections; advanced public notification; and mitigation measures for building foundations, groundwater wells, and springs. Use appropriate methods (e.g., blasting mats) to prevent damage to nearby structures and to prevent debris from entering sensitive environmental resource areas.

G. SPILL PREVENTION AND RESPONSE PROCEDURES

The project sponsor shall develop project-specific Spill Prevention and Response Procedures, as specified in section IV of the staff's Procedures. A copy must be filed with the Secretary of the FERC (Secretary) prior to construction and made available in the field on each construction spread. The filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

H. RESIDENTIAL CONSTRUCTION

For all properties with residences located within 50 feet of construction work areas, project sponsors shall: avoid removal of mature trees and landscaping within the construction work area unless necessary for safe operation of construction equipment, or as specified in landowner agreements; fence the edge of the construction work area for a distance of 100 feet on either side of the residence; and restore all lawn areas and landscaping immediately following clean-up operations, or as specified in landowner agreements. If seasonal or other weather conditions prevent compliance with these time frames, maintain and monitor temporary erosion controls (sediment barriers and mulch) until conditions allow completion of restoration.

I. WINTER CONSTRUCTION PLANS

If construction is planned to occur during winter weather conditions, project sponsors shall develop and file a project-specific winter construction plan with the FERC application. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

The plan shall address:

1. winter construction procedures (e.g., snow handling and removal, access road construction and maintenance, soil handling under saturated or frozen conditions, topsoil stripping);
2. stabilization and monitoring procedures if ground conditions will delay restoration until the following spring (e.g., mulching and erosion controls, inspection and reporting, stormwater control during spring thaw conditions); and
3. final restoration procedures (e.g., subsidence and compaction repair, topsoil replacement, seeding).

IV. INSTALLATION

A. APPROVED AREAS OF DISTURBANCE

1. Project-related ground disturbance shall be limited to the construction right-of-way, extra work space areas, pipe storage yards, borrow and disposal areas, access roads, and other areas approved in the FERC's Orders. Any project-related ground disturbing activities outside these areas will require prior Director approval. This requirement does not apply to activities needed to comply with the Plan and Procedures (i.e., slope breakers, energy-dissipating devices, dewatering structures, drain tile system repairs) or minor field realignments and workspace shifts per landowner needs and requirements that do not affect other landowners or sensitive environmental resource areas. All construction or restoration activities outside of authorized areas are subject to all applicable survey and permit requirements, and landowner easement agreements.
2. The construction right-of-way width for a project shall not exceed 75 feet or that described in the FERC application unless otherwise modified by a FERC Order. However, in limited, non-wetland areas, this construction right-of-way width may be expanded by up to 25 feet without Director approval to accommodate full construction right-of-way topsoil segregation and to ensure safe construction where topographic conditions (e.g., side-slopes) or soil limitations require it. Twenty-five feet of extra construction right-of-way width may also be used in limited, non-wetland or non-forested areas for truck turn-arounds where no reasonable alternative access exists.

Pipeline: Construction ROW widths along the Pipeline route range from 110 feet to 150 feet. This deviation is to support the installation of large-diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

Project use of these additional limited areas is subject to landowner or land management agency approval and compliance with all applicable survey and permit requirements. When additional areas are used, each one shall be identified

and the need explained in the weekly or biweekly construction reports to the FERC, if required. The following material shall be included in the reports:

- a. the location of each additional area by station number and reference to previously filed alignment sheets, or updated alignment sheets showing the additional areas;
- b. identification of the filing at FERC containing evidence that the additional areas were previously surveyed; and
- c. a statement that landowner approval has been obtained and is available in project files.

Prior written approval of the Director is required when the authorized construction right-of-way width would be expanded by more than 25 feet.

B. TOPSOIL SEGREGATION

1. Unless the landowner or land management agency specifically approves otherwise, prevent the mixing of topsoil with subsoil by stripping topsoil from either the full work area or from the trench and subsoil storage area (ditch plus spoil side method) in:
 - a. cultivated or rotated croplands, and managed pastures;
Insert deviation for saturated agricultural fields – same deviation as below
 - b. residential areas;
 - c. hayfields; and
 - d. other areas at the landowner's or land managing agency's request.
2. In residential areas, importation of topsoil is an acceptable alternative to topsoil segregation.
3. Where topsoil segregation is required, the project sponsor must:
 - a. segregate at least 12 inches of topsoil in deep soils (more than 12 inches of topsoil); and
 - b. make every effort to segregate the entire topsoil layer in soils with less than 12 inches of topsoil.

4. Maintain separation of salvaged topsoil and subsoil throughout all construction activities.
5. Segregated topsoil may not be used for padding the pipe, constructing temporary slope breakers or trench plugs, improving or maintaining roads, or as a fill material.
6. Stabilize topsoil piles and minimize loss due to wind and water erosion with use of sediment barriers, mulch, temporary seeding, tackifiers, or functional equivalents, where necessary.

C. DRAIN TILES

1. Mark locations of drain tiles damaged during construction.
2. Probe all drainage tile systems within the area of disturbance to check for damage.
3. Repair damaged drain tiles to their original or better condition. Do not use filter-covered drain tiles unless the local soil conservation authorities and the landowner agree. Use qualified specialists for testing and repairs.
4. For new pipelines in areas where drain tiles exist or are planned, ensure that the depth of cover over the pipeline is sufficient to avoid interference with drain tile systems. For adjacent pipeline loops in agricultural areas, install the new pipeline with at least the same depth of cover as the existing pipeline(s).

D. IRRIGATION

Maintain water flow in crop irrigation systems, unless shutoff is coordinated with affected parties.

E. ROAD CROSSINGS AND ACCESS POINTS

1. Maintain safe and accessible conditions at all road crossings and access points during construction.
2. If crushed stone access pads are used in residential or agricultural areas, place the stone on synthetic fabric to facilitate removal.
3. Minimize the use of tracked equipment on public roadways. Remove any soil or gravel spilled or tracked onto roadways daily or more frequent as necessary to maintain safe road conditions. Repair any damages to roadway surfaces,

shoulders, and bar ditches.

F. TEMPORARY EROSION CONTROL

Install temporary erosion controls immediately after initial disturbance of the soil. Temporary erosion controls must be properly maintained throughout construction (on a daily basis) and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration is complete.

1. Temporary Slope Breakers

- a. Temporary slope breakers are intended to reduce runoff velocity and divert water off the construction right-of-way. Temporary slope breakers may be constructed of materials such as soil, silt fence, staked hay or straw bales, or sandbags.
- b. Install temporary slope breakers on all disturbed areas, as necessary to avoid excessive erosion. Temporary slope breakers must be installed on slopes greater than 5 percent where the base of the slope is less than 50 feet from waterbody, wetland, and road crossings at the following spacing (closer spacing shall be used if necessary):

Slope (%)	Spacing (feet)
5 – 15	300
>15 – 30	200
>30	100

- c. Direct the outfall of each temporary slope breaker to a stable, well vegetated area or construct an energy-dissipating device at the end of the slope breaker and off the construction right-of-way.
- d. Position the outfall of each temporary slope breaker to prevent sediment discharge into wetlands, waterbodies, or other sensitive environmental resource areas.

2. Temporary Trench Plugs

Temporary trench plugs are intended to segment a continuous open trench prior to backfill.

- a. Temporary trench plugs may consist of unexcavated portions of the trench, compacted subsoil, sandbags, or some functional equivalent.
- b. Position temporary trench plugs, as necessary, to reduce trenchline

erosion and minimize the volume and velocity of trench water flow at the base of slopes.

3. Sediment Barriers

Sediment barriers are intended to stop the flow of sediments and to prevent the deposition of sediments beyond approved workspaces or into sensitive resources.

- a. Sediment barriers may be constructed of materials such as silt fence, staked hay or straw bales, compacted earth (e.g., driveable berms across travelways), sand bags, or other appropriate materials.
- b. At a minimum, install and maintain temporary sediment barriers across the entire construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody, wetland, or road crossing until revegetation is successful as defined in this Plan. Leave adequate room between the base of the slope and the sediment barrier to accommodate ponding of water and sediment deposition.
- c. Where wetlands or waterbodies are adjacent to and downslope of construction work areas, install sediment barriers along the edge of these areas, as necessary to prevent sediment flow into the wetland or waterbody.

4. Mulch

- a. Apply mulch on all slopes (except in cultivated cropland) concurrent with or immediately after seeding, where necessary to stabilize the soil surface and to reduce wind and water erosion. Spread mulch uniformly over the area to cover at least 75 percent of the ground surface at a rate of 2 tons/acre of straw or its equivalent, unless the local soil conservation authority, landowner, or land managing agency approves otherwise in writing.
- b. Mulch can consist of weed-free straw or hay, wood fiber hydromulch, erosion control fabric, or some functional equivalent.
- c. Mulch all disturbed upland areas (except cultivated cropland) before seeding if:
 - (1) final grading and installation of permanent erosion control measures will not be completed in an area within 20 days after the trench in that area is backfilled (10 days in residential areas), as required in section V.A.1; or
 - (2) construction or restoration activity is interrupted for extended periods, such as when seeding cannot be completed due to seeding period restrictions.

- d. If mulching before seeding, increase mulch application on all slopes within 100 feet of waterbodies and wetlands to a rate of 3 tons/acre of straw or equivalent.
- e. If wood chips are used as mulch, do not use more than 1 ton/acre and add the equivalent of 11 lbs/acre available nitrogen (at least 50percent of which is slow release).
- f. Ensure that mulch is adequately anchored to minimize loss due to wind and water.
- g. When anchoring with liquid mulch binders, use rates recommended by the manufacturer. Do not use liquid mulch binders within 100 feet of wetlands or waterbodies, except where the product is certified environmentally non-toxic by the appropriate state or federal agency or independent standards-setting organization.
- h. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat, unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.

V. RESTORATION

A. CLEANUP

1. Commence cleanup operations immediately following backfill operations. Complete final grading, topsoil replacement, and installation of permanent erosion control structures within 20 days after backfilling the trench (10 days in residential areas). If seasonal or other weather conditions prevent compliance with these time frames, maintain temporary erosion controls (i.e., temporary slope breakers, sediment barriers, and mulch) until conditions allow completion of cleanup.

Pipeline: Commencement of cleanup operations within the specified timeframes (including residential areas) may not occur when access to the ROW and/or direct access to the pipeline is required for any of the following construction activities:

- Hydrostatic testing
- Pigging to dry
- Caliper pig anomaly
- Cathodic protection installation
- Fiberoptic installation and testing
- Parallel or lateral pipelines
- Tie- in connections

Environmental and safety mitigation measures will remain, be routinely inspected and maintained. Where access is required, mats will remain in place until such time when access is no longer required. In order to mitigate impacts, the CONTRACTOR will maintain erosion and sediment control mitigation measures and Residential Plan.

If construction or restoration unexpectedly continues into the winter season when conditions could delay successful decompaction, topsoil replacement, or seeding until the following spring, file with the Secretary for the review and written approval of the Director, a winter construction plan (as specified in section III.I). This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

2. A travel lane may be left open temporarily to allow access by construction traffic if the temporary erosion control structures are installed as specified in section IV.F. and inspected and maintained as specified in sections II.B.12 through 14. When access is no longer required the travel lane must be removed and the right- of-way restored.
3. Rock excavated from the trench may be used to backfill the trench only to the top of the existing bedrock profile. Rock that is not returned to the trench shall be considered construction debris, unless approved for use as mulch or

for some other use on the construction work areas by the landowner or land managing agency.

4. Remove excess rock from at least the top 12 inches of soil in all cultivated or rotated cropland, managed pastures, hayfields, and residential areas, as well as other areas at the landowner's request. The size, density, and distribution of rock on the construction work area shall be similar to adjacent areas not disturbed by construction. The landowner or land management agency may approve other provisions in writing.
5. Grade the construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting.
6. Remove construction debris from all construction work areas unless the landowner or land managing agency approves leaving materials onsite for beneficial reuse, stabilization, or habitat restoration.
7. Remove temporary sediment barriers when replaced by permanent erosion control measures or when revegetation is successful.

B. PERMANENT EROSION CONTROL DEVICES

1. Trench Breakers

- a. Trench breakers are intended to slow the flow of subsurface water along the trench. Trench breakers may be constructed of materials such as sand bags or polyurethane foam. Do not use topsoil in trench breakers.
- b. An engineer or similarly qualified professional shall determine the need for and spacing of trench breakers. Otherwise, trench breakers shall be installed at the same spacing as and upslope of permanent slope breakers.
- c. In agricultural fields and residential areas where slope breakers are not typically required, install trench breakers at the same spacing as if permanent slope breakers were required.
- d. At a minimum, install a trench breaker at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody or wetland and where needed to avoid draining a waterbody or wetland. Install trench breakers at wetland boundaries, as specified in the Procedures. Do not install trench breakers within a wetland.

2. Permanent Slope Breakers

- a. Permanent slope breakers are intended to reduce runoff velocity,

divert water off the construction right-of-way, and prevent sediment deposition into sensitive resources. Permanent slope breakers may be constructed of materials such as soil, stone, or some functional equivalent.

- b. Construct and maintain permanent slope breakers in all areas, except cultivated areas and lawns, unless requested by the landowner, using spacing recommendations obtained from the local soil conservation authority or land managing agency.

In the absence of written recommendations, use the following spacing unless closer spacing is necessary to avoid excessive erosion on the construction right-of-way:

Slope (%)	Spacing (feet)
5 – 15	300
>15 – 30	200
>30	100

- c. Construct slope breakers to divert surface flow to a stable area without causing water to pool or erode behind the breaker. In the absence of a stable area, construct appropriate energy-dissipating devices at the end of the breaker.
- d. Slope breakers may extend slightly (about 4 feet) beyond the edge of the construction right-of-way to effectively drain water off the disturbed area. Where slope breakers extend beyond the edge of the construction right-of-way, they are subject to compliance with all applicable survey requirements.

C. SOIL COMPACTION MITIGATION

1. Test topsoil and subsoil for compaction at regular intervals in agricultural and residential areas disturbed by construction activities. Conduct tests on the same soil type under similar moisture conditions in undisturbed areas to approximate preconstruction conditions. Use penetrometers or other appropriate devices to conduct tests.
2. Plow severely compacted agricultural areas with a paraplow or other deep tillage implement. In areas where topsoil has been segregated, plow the subsoil before replacing the segregated topsoil.

If subsequent construction and cleanup activities result in further compaction, conduct additional tilling.

3. Perform appropriate soil compaction mitigation in severely compacted residential areas.

D. REVEGETATION

1. General

- a. The project sponsor is responsible for ensuring successful revegetation of soils disturbed by project-related activities, except as noted in section V.D.1.b.
- b. Restore all turf, ornamental shrubs, and specialized landscaping in accordance with the landowner's request, or compensate the landowner. Restoration work must be performed by personnel familiar with local horticultural and turf establishment practices.

2. Soil Additives

Fertilize and add soil pH modifiers in accordance with written recommendations obtained from the local soil conservation authority, land management agencies, or landowner. Incorporate recommended soil pH modifier and fertilizer into the top 2 inches of soil as soon as practicable after application.

3. Seeding Requirements

- a. Prepare a seedbed in disturbed areas to a depth of 3 to 4 inches using appropriate equipment to provide a firm seedbed. When hydroseeding, scarify the seedbed to facilitate lodging and germination of seed.
- b. Seed disturbed areas in accordance with written recommendations for seed mixes, rates, and dates obtained from the local soil conservation authority or the request of the landowner or land management agency. Seeding is not required in cultivated croplands unless requested by the landowner.
- c. Perform seeding of permanent vegetation within the recommended seeding dates. If seeding cannot be done within those dates, use appropriate temporary erosion control measures discussed in section IV.F and perform seeding of permanent vegetation at the beginning of the next recommended seeding season. Dormant seeding or temporary seeding of annual species may also be used, if necessary, to establish cover, as approved by the Environmental Inspector. Lawns may be seeded on a schedule established with the landowner.
- d. In the absence of written recommendations from the local soil conservation authorities, seed all disturbed soils within 6 working days of final grading, weather and soil conditions permitting, subject to the specifications in section V.D.3.a through V.D.3.c.

- e. Base seeding rates on Pure Live Seed. Use seed within 12 months of seed testing.
- f. Treat legume seed with an inoculant specific to the species using the manufacturer's recommended rate of inoculant appropriate for the seeding method (broadcast, drill, or hydro).
- g. In the absence of written recommendations from the local soil conservation authorities, landowner, or land managing agency to the contrary, a seed drill equipped with a cultipacker is preferred for seed application.

Broadcast or hydroseeding can be used in lieu of drilling at double the recommended seeding rates. Where seed is broadcast, firm the seedbed with a cultipacker or roller after seeding. In rocky soils or where site conditions may limit the effectiveness of this equipment, other alternatives may be appropriate (e.g., use of a chain drag) to lightly cover seed after application, as approved by the Environmental Inspector.

VI. OFF-ROAD VEHICLE CONTROL

To each owner or manager of forested lands, offer to install and maintain measures to control unauthorized vehicle access to the right-of-way. These measures may include:

- A. signs;
- B. fences with locking gates;
- C. slash and timber barriers, pipe barriers, or a line of boulders across the right-of-way;
and
- D. conifers or other appropriate trees or shrubs across the right-of-way.

VII. POST-CONSTRUCTION ACTIVITIES AND REPORTING

A. MONITORING AND MAINTENANCE

1. Conduct follow-up inspections of all disturbed areas, as necessary, to determine the success of revegetation and address landowner concerns. At a minimum, conduct inspections after the first and second growing seasons.
2. Revegetation in non-agricultural areas shall be considered successful if upon visual survey the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands. In agricultural areas, revegetation shall be considered successful when upon visual survey, crop growth and vigor are similar to adjacent undisturbed portions of the same field, unless the easement agreement specifies otherwise.

Continue revegetation efforts until revegetation is successful.

3. Monitor and correct problems with drainage and irrigation systems resulting from pipeline construction in agricultural areas until restoration is successful.
4. Restoration shall be considered successful if the right-of-way surface condition is similar to adjacent undisturbed lands, construction debris is removed (unless otherwise approved by the landowner or land managing agency per section V.A.6), revegetation is successful, and proper drainage has been restored.
5. Routine vegetation mowing or clearing over the full width of the permanent right-of-way in uplands shall not be done more frequently than every 3 years. However, to facilitate periodic corrosion/leak surveys, a corridor not exceeding 10 feet in width centered on the pipeline may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In no case shall routine vegetation mowing or clearing occur during the migratory bird nesting season between April 15 and August 1 of any year unless specifically approved in writing by the responsible land management agency or the U.S. Fish and Wildlife Service.

6. Efforts to control unauthorized off-road vehicle use, in cooperation with the landowner, shall continue throughout the life of the project. Maintain signs, gates, and permanent access roads as necessary.

B. REPORTING

1. The project sponsor shall maintain records that identify by milepost:
 - a. method of application, application rate, and type of fertilizer, pH modifying agent, seed, and mulch used;
 - b. acreage treated;
 - c. dates of backfilling and seeding;
 - d. names of landowners requesting special seeding treatment and a description of the follow-up actions;
 - e. the location of any subsurface drainage repairs or improvements made during restoration; and
 - f. any problem areas and how they were addressed.
2. The project sponsor shall file with the Secretary quarterly activity reports documenting the results of follow-up inspections required by section VII.A.1; any problem areas, including those identified by the landowner; and corrective actions taken for at least 2 years following construction.

The requirement to file quarterly activity reports with the Secretary does not apply to projects constructed under the automatic authorization, prior notice, or advanced notice provisions in the FERC's regulations.

DWLNG and DWPL Project Wetland & Waterbody Construction and Mitigation Procedures

I. APPLICABILITY

- A. The intent of these Procedures is to assist project sponsors by identifying baseline mitigation measures for minimizing the extent and duration of project-related disturbance on wetlands and waterbodies. Project sponsors shall specify in their applications for a new FERC authorization, and in prior notice and advance notice filings, any individual measures in these Procedures they consider unnecessary, technically infeasible, or unsuitable due to local conditions and fully describe any alternative measures they would use. Project sponsors shall also explain how those alternative measures would achieve a comparable level of mitigation.

Once a project is authorized, project sponsors can request further changes as variances to the measures in these Procedures (or the applicant's approved procedures). The Director of the Office of Energy Projects (Director) will consider approval of variances upon the project sponsor's written request, if the Director agrees that a variance:

1. provides equal or better environmental protection;
2. is necessary because a portion of these Procedures is infeasible or unworkable based on project-specific conditions; or
3. is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

Sponsors of projects planned for construction under the automatic authorization provisions in the FERC's regulations must receive written approval for any variances in advance of construction.

Project-related impacts on non-wetland areas are addressed in the staff's Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

B. DEFINITIONS

1. "Waterbody" includes any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes:

Exception: “ditches” are described in Resource Report 2 as being primarily man-made drainage features that include agricultural ditches and canals in fields and pastures and roadside drainage ditches. For construction purposes, ditches are not considered as significant waterbodies, not part of stream systems mapped in the USGS hydrographic database, and are not intermittent or perennial stream systems or channelized portions of these stream systems. As such, they typically do not fall under the jurisdiction of the U.S. Army Corps of Engineers (COE). Ditches are temporary in nature and are used to facilitate agriculture and drainage practices.

- a. “minor waterbody” includes all waterbodies less than or equal to 10 feet wide at the water’s edge at the time of crossing;
 - b. “intermediate waterbody” includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water’s edge at the time of crossing; and
 - c. “major waterbody” includes all waterbodies greater than 100 feet wide at the water’s edge at the time of crossing.
2. “Wetland” includes any area that is not in actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

Pipeline: DWPL does not consider cultivated tree-farms (identified in the Wetland Delineation Report – Pipeline, appendix to Resource Report 2) as wetland, and these areas can be further defined with “saturated” and “non-saturated” conditions.

II. PRECONSTRUCTION FILING

- A. The following information must be filed with the Secretary of the FERC (Secretary) prior to the beginning of construction, for the review and written approval by the Director:
 1. site-specific justifications for extra work areas that would be closer than 50 feet from a waterbody or wetland; and
 2. site-specific justifications for the use of a construction right-of-way greater than 75-feet-wide in wetlands.

Pipeline: The standard construction ROW width of 110 feet within wetland-determined areas (which includes saturated and non-saturated conditions) as outlined in the project-specific alignment sheets. This deviation is to support the installation of large-diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

- B. The following information must be filed with the Secretary prior to the beginning of construction. These filing requirements do not apply to projects constructed under the automatic authorization provisions in the FERC's regulations:
1. Spill Prevention and Response Procedures specified in section IV.A;
 2. a schedule identifying when trenching or blasting will occur within each waterbody greater than 10 feet wide, within any designated coldwater fishery, and within any waterbody identified as habitat for federally-listed threatened or endangered species. The project sponsor will revise the schedule as necessary to provide FERC staff at least 14 days advance notice. Changes within this last 14-day period must provide for at least 48 hours advance notice;
 3. plans for horizontal directional drills (HDD) under wetlands or waterbodies, specified in section V.B.6.d;
 4. site-specific plans for major waterbody crossings, described in section V.B.9;
 5. a wetland delineation report as described in section VI.A.1, if applicable; and
 6. the hydrostatic testing information specified in section VII.B.3.

III. ENVIRONMENTAL INSPECTORS

- A. At least one Environmental Inspector having knowledge of the wetland and waterbody conditions in the project area is required for each construction spread. The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.
- B. The Environmental Inspector's responsibilities are outlined in the Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

IV. PRECONSTRUCTION PLANNING

- A. The project sponsor shall develop project-specific Spill Prevention and Response Procedures that meet applicable requirements of state and federal agencies. A copy must be filed with the Secretary prior to construction and made available in the field on each construction spread. This filing requirement does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

Pipeline: The CONTRACTOR will require a fuel truck to transport and unload fuel into heavy construction equipment (e.g. HDD machinery, excavator, haul trucks, graders) on access roads and along the ROW travel lane and within wetland areas, some of which extend for miles. The tracking of equipment in and out of the wetland areas on a twice daily basis is considered a higher risk for accidents resulting in unanticipated spills and leaks than a single fuel truck refueling the construction equipment in an appropriately controlled area. The area will have secondary containment (i.e., drip trays, etc.) appropriate spill prevention materials, be inspected and approved by EI and the refueling and equipment operator will be trained in refueling activities. Fuel trucks will not be parked/stored overnight within 100 feet of a wetland or waterbody. Bulk fuel will not be stored overnight within 100 feet of waterbodies or wetlands.

LNG Facility: There will be construction within and adjacent to waterbodies. Large equipment, specifically cranes for offloading barged materials, will remain staged at the MOF, or on barges for an extended period of time. This equipment cannot be easily moved away from the water's edge for refueling or storage. The CONTRACTOR will verify that fuel tanks associated with equipment staged at the MOF or marine berth will have the necessary secondary containment to prevent leaked product from entering waters of the U.S. Refueling of this equipment shall follow the Project SPCC plan..

1. It shall be the responsibility of the project sponsor and its contractors to structure their operations in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to waterbodies or wetlands. The project sponsor and its contractors must, at a minimum, ensure that:
 - a. all employees handling fuels and other hazardous materials are properly trained;
 - b. all equipment is in good operating order and inspected on a regular basis;
 - c. fuel trucks transporting fuel to on-site equipment travel only on approved access roads;
 - d. all equipment is parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;
 - e. hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas;
 - f. concrete coating activities are not performed within 100 feet of a wetland or waterbody boundary, unless the location is an existing industrial site designated for such use. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and the project sponsor and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;
 - g. pumps operating within 100 feet of a waterbody or wetland boundary utilize appropriate secondary containment systems to prevent spills; and
 - h. bulk storage of hazardous materials, including chemicals, fuels, and lubricating oils have appropriate secondary containment systems to prevent spills.

2. The project sponsor and its contractors must structure their operations in a manner that provides for the prompt and effective cleanup of spills of fuel and other hazardous materials. At a minimum, the project sponsor and its contractors must:
 - a. ensure that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills and unanticipated discoveries of contamination;
 - b. ensure that each construction crew has on hand sufficient tools and material to stop leaks;
 - c. know the contact names and telephone numbers for all local, state, and federal agencies (including, if necessary, the U. S. Coast Guard and the National Response Center) that must be notified of a spill; and
 - d. follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

B. AGENCY COORDINATION

The project sponsor must coordinate with the appropriate local, state, and federal agencies as outlined in these Procedures and in the FERC's Orders.

V. WATERBODY CROSSINGS

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply to the U.S. Army Corps of Engineers (COE), or its delegated agency, for the appropriate wetland and waterbody crossing permits.
2. Provide written notification to authorities responsible for potable surface water supply intakes located within 3 miles downstream of the crossing at least 1 week before beginning work in the waterbody, or as otherwise specified by that authority.
3. Apply for state-issued waterbody crossing permits and obtain individual or generic section 401 water quality certification or waiver.
4. Notify appropriate federal and state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in applicable permits.

B. INSTALLATION

1. Time Window for Construction

Unless expressly permitted or further restricted by the appropriate federal or state agency in writing on a site-specific basis, instream work, except that required to install or remove equipment bridges, must occur during the following time windows:

- a. coldwater fisheries - June 1 through September 30; and
- b. coolwater and warmwater fisheries - June 1 through November 30.

2. Extra Work Areas

- a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.
- b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from the water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the conditions that will not permit a 50-foot setback and measures to ensure the waterbody is adequately protected.

Pipeline: to the extent practicable, the CONTRACTOR will locate extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge. Workspace areas which cannot achieve a 50-foot setback will be identified and filed with the Secretary for review and written approval prior to the beginning of construction. The CONTRACTOR will implement the applicable best management practices in the appropriate locations, to minimize soil erosion and sedimentation from these ATWS locations during and after construction. Typical best management practices include control measures such as silt fencing, mulching, rock armoring, and drainage conveyances.

Additionally, the following mitigation measures will also be implemented:

1. Reduce construction vehicle residence time at wetland and waterbody areas by reducing the distance required to move the excavated materials;
2. Reduce the volume of equipment in the area by having the least amount of only-necessary equipment being used; and
3. Reduce the hazardous material in the area to reduce the risk of a spill in waterbodies and in wetland areas.

Deviations from the 50-foot setback requirement are identified in Resource Report 8, Appendix 8B – Temporary Workspaces and Staging Areas.

- c. Limit the size of extra workspace areas to the minimum needed to construct the waterbody crossing.

3. General Crossing Procedures

LNG Facility: Crossing procedures will not be required for LNG Facility construction.

- a. Comply with the COE, or its delegated agency, permit terms and conditions.
- b. Construct crossings as close to perpendicular to the axis of the waterbody channel as engineering and routing conditions permit.
- c. Where pipelines parallel a waterbody, maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.
- d. Where waterbodies meander or have multiple channels, route the

pipeline to minimize the number of waterbody crossings.

- e. Maintain adequate waterbody flow rates to protect aquatic life, and prevent the interruption of existing downstream uses.
- f. Waterbody buffers (e.g., extra work area setbacks, refueling restrictions) must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.
- g. Crossing of waterbodies when they are dry or frozen and not flowing may proceed using standard upland construction techniques in accordance with the Plan, provided that the Environmental Inspector verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. In the event of perceptible flow, the project sponsor must comply with all applicable Procedure requirements for “waterbodies” as defined in section I.B.1.

4. Spoil Pile Placement and Control

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

- a. All spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings, must be placed in the construction right-of-way at least 10 feet from the water’s edge or in additional extra work areas as described in section V.B.2.
- b. Use sediment barriers to prevent the flow of spoil or silt-laden water into any waterbody.

5. Equipment Bridges

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

- a. Only clearing equipment and equipment necessary for installation of equipment bridges may cross waterbodies prior to bridge installation. Limit the number of such crossings of each waterbody to one per piece of clearing equipment.
- b. Construct and maintain equipment bridges to allow unrestricted flow and to prevent soil from entering the waterbody. Examples of such bridges include:

- (1) equipment pads and culvert(s);
- (2) equipment pads or railroad car bridges without culverts;
- (3) clean rock fill and culvert(s); and
- (4) flexi-float or portable bridges.

Additional options for equipment bridges may be utilized that achieve the performance objectives noted above. Do not use soil to construct or stabilize equipment bridges.

- c. Design and maintain each equipment bridge to withstand and pass the highest flow expected to occur while the bridge is in place. Align culverts to prevent bank erosion or streambed scour. If necessary, install energy dissipating devices downstream of the culverts.
- d. Design and maintain equipment bridges to prevent soil from entering the waterbody.
- e. Remove temporary equipment bridges as soon as practicable after permanent seeding.
- f. If there will be more than 1 month between final cleanup and the beginning of permanent seeding and reasonable alternative access to the right-of-way is available, remove temporary equipment bridges as soon as practicable after final cleanup.
- g. Obtain any necessary approval from the COE, or the appropriate state agency for permanent bridges.

6. Dry-Ditch Crossing Methods

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

- a. Unless approved otherwise by the appropriate federal or state agency, install the pipeline using one of the dry-ditch methods outlined below for crossings of waterbodies up to 30 feet wide (at the water's edge at the time of construction) that are state-designated as either coldwater or significant coolwater or warmwater fisheries, or federally-designated as critical habitat.
- b. Dam and Pump
 - (1) The dam-and-pump method may be used without prior approval for crossings of waterbodies where pumps can adequately transfer streamflow volumes around the work area, and there are no concerns about sensitive species passage.

- (2) Implementation of the dam-and-pump crossing method must meet the following performance criteria:
 - (i) use sufficient pumps, including on-site backup pumps, to maintain downstream flows;
 - (ii) construct dams with materials that prevent sediment and other pollutants from entering the waterbody (e.g., sandbags or clean gravel with plastic liner);
 - (iii) screen pump intakes to minimize entrainment of fish;
 - (iv) prevent streambed scour at pump discharge; and
 - (v) continuously monitor the dam and pumps to ensure proper operation throughout the waterbody crossing.

c. Flume Crossing

The flume crossing method requires implementation of the following steps:

- (1) install flume pipe after blasting (if necessary), but before any trenching;
- (2) use sand bag or sand bag and plastic sheeting diversion structure or equivalent to develop an effective seal and to divert stream flow through the flume pipe (some modifications to the stream bottom may be required to achieve an effective seal);
- (3) properly align flume pipe(s) to prevent bank erosion and streambed scour;
- (4) do not remove flume pipe during trenching, pipelaying, or backfilling activities, or initial streambed restoration efforts; and
- (5) remove all flume pipes and dams that are not also part of the equipment bridge as soon as final cleanup of the stream bed and bank is complete.

d. Horizontal Directional Drill

For each waterbody or wetland that would be crossed using the HDD method, file with the Secretary for the review and written approval by the Director, a plan that includes:

- (1) site-specific construction diagrams that show the location of mud pits, pipe assembly areas, and all areas to be disturbed or cleared for construction;

- (2) justification that disturbed areas are limited to the minimum needed to construct the crossing;
- (3) identification of any aboveground disturbance or clearing between the HDD entry and exit workspaces during construction;
- (4) a description of how an inadvertent release of drilling mud would be contained and cleaned up; and
- (5) a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful and how the abandoned drill hole would be sealed, if necessary.

The requirement to file HDD plans does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

7. Crossings of Minor Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Where a dry-ditch crossing is not required, minor waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

- a. except for blasting and other rock breaking measures, complete instream construction activities (including trenching, pipe installation, backfill, and restoration of the streambed contours) within 24 hours. Streambanks and unconsolidated streambeds may require additional restoration after this period;
- b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and
- c. equipment bridges are not required at minor waterbodies that do not have a state-designated fishery classification or protected status (e.g., agricultural or intermittent drainage ditches). However, if an equipment bridge is used it must be constructed as described in section V.B.5.

8. Crossings of Intermediate Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Where a dry-ditch crossing is not required, intermediate waterbodies may be crossed using the open-cut crossing method, with the following restrictions:

- a. complete instream construction activities (not including blasting and other rock breaking measures) within 48 hours, unless site-specific conditions make completion within 48 hours infeasible;
- b. limit use of equipment operating in the waterbody to that needed to construct the crossing; and
- c. all other construction equipment must cross on an equipment bridge as specified in section V.B.5.

9. Crossings of Major Waterbodies

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Before construction, the project sponsor shall file with the Secretary for the review and written approval by the Director a detailed, site-specific construction plan and scaled drawings identifying all areas to be disturbed by construction for each major waterbody crossing (the scaled drawings are not required for any offshore portions of pipeline projects).

This plan must be developed in consultation with the appropriate state and federal agencies and shall include extra work areas, spoil storage areas, sediment control structures, etc., as well as mitigation for navigational issues. The requirement to file major waterbody crossing plans does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

The Environmental Inspector may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

10. Temporary Erosion and Sediment Control

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan; however, the following specific measures must be implemented at stream crossings:

- a. install sediment barriers across the entire construction right-of-way at all waterbody crossings, where necessary to prevent the flow of sediments into the waterbody. Removable sediment barriers (or driveable berms) must be installed across the travel lane. These removable sediment barriers can be removed during the construction day, but must be re-installed after construction has stopped for the day and/or when heavy precipitation is imminent;
- b. where waterbodies are adjacent to the construction right-of-way and the right-of-way slopes toward the waterbody, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the waterbody; and
- c. use temporary trench plugs at all waterbody crossings, as necessary, to prevent diversion of water into upland portions of the pipeline trench and to keep any accumulated trench water out of the waterbody.

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

11. Trench Dewatering

Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any waterbody. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction.

1. Use clean gravel or native cobbles for the upper 1 foot of trench backfill in all waterbodies that contain coldwater fisheries.
2. For open-cut crossings, stabilize waterbody banks and install temporary sediment barriers within 24 hours of completing instream construction activities. For dry-ditch crossings, complete streambed and bank stabilization before returning flow to the waterbody channel.
3. Return all waterbody banks to pre-construction contours or to a stable angle of repose as approved by the Environmental Inspector.
4. Install erosion control fabric or a functional equivalent on waterbody banks at the time of final bank re-contouring. Do not use synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat unless the product is specifically designed to minimize harm to wildlife. Anchor erosion control fabric with staples or other appropriate devices.
5. Application of riprap for bank stabilization must comply with COE, or its delegated agency, permit terms and conditions.
6. Unless otherwise specified by state permit, limit the use of riprap to areas where flow conditions preclude effective vegetative stabilization techniques such as seeding and erosion control fabric.
7. Revegetate disturbed riparian areas with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed lands.
8. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent that are less than 50 feet from the waterbody, or as needed to prevent sediment transport into the waterbody. In addition, install sediment barriers as outlined in the Plan.

In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the waterbody.

9. Sections V.C.3 through V.C.7 above also apply to those perennial or intermittent streams not flowing at the time of construction.

D. POST-CONSTRUCTION MAINTENANCE

Exception - LNG Facility: Waterbody crossing not applicable to LNG Facility construction. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

1. Limit routine vegetation mowing or clearing adjacent to waterbodies to allow a riparian strip at least 25 feet wide, as measured from the waterbody's mean high water mark, to permanently revegetate with native plant species across the entire construction right-of-way. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees that are located within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating may be cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in riparian areas that are between HDD entry and exitpoints.
2. Do not use herbicides or pesticides in or within 100 feet of a waterbody except as allowed by the appropriate land management or state agency.
3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of riparian areas.

VI. WETLAND CROSSINGS

LNG Facility: Impacts to wetlands at the LNG Facility will be appropriately permitted and mitigated as regulatorily approved. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

A. GENERAL

1. The project sponsor shall conduct a wetland delineation using the current federal methodology and file a wetland delineation report with the Secretary before construction. The requirement to file a wetland delineation report does not apply to projects constructed under the automatic authorization provisions in the FERC's regulations.

This report shall identify:

- a. by milepost all wetlands that would be affected;

- b. the National Wetlands Inventory (NWI) classification for each wetland;
- c. the crossing length of each wetland in feet; and
- d. the area of permanent and temporary disturbance that would occur in each wetland by NWI classification type.

The requirements outlined in this section do not apply to wetlands in actively cultivated or rotated cropland. Standard upland protective measures, including workspace and top soiling requirements, apply to these agricultural wetlands.

- 2. Route the pipeline to avoid wetland areas to the maximum extent possible. If a wetland cannot be avoided or crossed by following an existing right-of-way, route the new pipeline in a manner that minimizes disturbance to wetlands. Where looping an existing pipeline, overlap the existing pipeline right-of-way with the new construction right-of-way. In addition, locate the loop line no more than 25 feet away from the existing pipeline unless site-specific constraints would adversely affect the stability of the existing pipeline.
- 3. Limit the width of the construction right-of-way to 75 feet or less. Prior written approval of the Director is required where topographic conditions or soil limitations require that the construction right-of-way width within the boundaries of a federally delineated wetland be expanded beyond 75 feet. Early in the planning process the project sponsor is encouraged to identify site-specific areas where excessively wide trenches could occur and/or where spoil piles could be difficult to maintain because existing soils lack adequate unconfined compressive strength.

Pipeline: The construction ROW width in wetlands is proposed to be 110 feet within wetland-determined areas (which includes saturated and non-saturated conditions, and/or actively-cultivated tree-farms). This deviation is to support the installation of large- diameter pipe which requires sufficient space to safely maneuver construction equipment, while consolidating to challenging work environment conditions (e.g. soil types and conditions, proximity to waterbodies and river crossings, additional buoyancy needs, ditch dimensions and depth, methods of construction (e.g. boring or open-cut construction), vehicle turn-arounds, work crew interface, travel lane needs, existing pipeline and utilities, ATWS setback, and public proximity).

- 4. Wetland boundaries and buffers must be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

5. Implement the measures of sections V and VI in the event a waterbody crossing is located within or adjacent to a wetland crossing. If all measures of sections V and VI cannot be met, the project sponsor must file with the Secretary a site-specific crossing plan for review and written approval by the Director before construction. This crossing plan shall address at a minimum:
 - a. spoil control;
 - b. equipment bridges;
 - c. restoration of waterbody banks and wetland hydrology;
 - d. timing of the waterbody crossing;
 - e. method of crossing; and
 - f. size and location of all extra work areas.
6. Do not locate aboveground facilities in any wetland, except where the location of such facilities outside of wetlands would prohibit compliance with U.S. Department of Transportation regulations.

B. INSTALLATION

1. Extra Work Areas and Access Roads
 - a. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.

Pipeline: To the extent practicable, the CONTRACTOR will locate extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge. Workspace areas which cannot achieve a 50-foot setback will be identified and filed with the Secretary for review and written approval prior to the beginning of construction. The CONTRACTOR will implement the applicable best management practices (which includes control measures like silt fencing, mulching, drainage) in the appropriate locations, so to minimize soil erosion and sedimentation from these ATWS locations during and after construction.

Additionally, the following mitigation measures will also be implemented:

1. Reduce construction vehicle residence time wetland and waterbody areas by reducing the distance required to move the excavated materials;
2. Reduce the volume of equipment in the area by having the least amount of only-necessary equipment being used; and
3. Reduce the hazardous material in the area to reduce the risk of a spill in waterbodies and in wetland areas.

Deviations from the 50-foot setback requirement are identified in Resource Report 8, Appendix 8B – Temporary Workspaces and Staging Areas.

- b. The project sponsor shall file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from wetland boundaries, except where adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification must specify the site-specific conditions that will not permit a 50-foot setback and measures to ensure the wetland is adequately protected.
- c. The construction right-of-way may be used for access when the wetland soil is firm enough to avoid rutting or the construction right-of-way has been appropriately stabilized to avoid rutting (e.g., with timber riprap, prefabricated equipment mats, or terra mats).

In wetlands that cannot be appropriately stabilized, all construction equipment other than that needed to install the wetland crossing shall use access roads located in upland areas. Where access roads in upland areas do not provide reasonable access, limit all other construction equipment to

one pass through the wetland using the construction right-of-way.

- d. The only access roads, other than the construction right-of-way, that can be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.

2. Crossing Procedures

LNG Facility. These requirements regarding waterbody crossing procedures do not apply. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.

- a. Comply with COE, or its delegated agency, permit terms and conditions.
- b. Assemble the pipeline in an upland area unless the wetland is dry enough to adequately support skids and pipe.
- c. Use “push-pull” or “float” techniques to place the pipe in the trench where water and other site conditions allow.
- d. Minimize the length of time that topsoil is segregated and the trench is open. Do not trench the wetland until the pipeline is assembled and ready for lowering in.
- e. Limit construction equipment operating in wetland areas to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way.
- f. Cut vegetation just above ground level, leaving existing root systems in place, and remove it from the wetland for disposal.

The project sponsor can burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.

- g. Limit pulling of tree stumps and grading activities to directly over the trenchline. Do not grade or remove stumps or root systems from the rest of the construction right-of-way in wetlands unless the Chief Inspector and Environmental Inspector

determine that safety-related construction constraints require grading or the removal of tree stumps from under the working side of the construction right-of-way.

- h. Segregate the top 1 foot of topsoil from the area disturbed by trenching, except in areas where standing water is present or soils are saturated. Immediately after backfilling is complete, restore the segregated topsoil to its original location.
- i. Do not use rock, soil imported from outside the wetland, tree stumps, or brush riprap to support equipment on the construction right-of-way.
- j. If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, use low-ground-weight construction equipment, or operate normal equipment on timber riprap, prefabricated equipment mats, or terra mats.
- k. Remove all project-related material used to support equipment on the construction right-of-way upon completion of construction.

3. Temporary Sediment Control

A project specific Erosion and Sediment Control Plan has been developed for the LNG Facility construction site.

Install sediment barriers (as defined in section IV.F.3.a of the Plan) immediately after initial disturbance of the wetland or adjacent upland. Sediment barriers must be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench). Except as noted below in section VI.B.3.c, maintain sediment barriers until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan.

- a. Install sediment barriers across the entire construction right-of-way immediately upslope of the wetland boundary at all wetland crossings where necessary to prevent sediment flow into the wetland.
- b. Where wetlands are adjacent to the construction right-of-way and the right-of-way slopes toward the wetland, install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the wetland.

- c. Install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way through wetlands. Remove these sediment barriers during right-of-way cleanup.

4. Trench Dewatering

Dewater the trench (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland. Remove the dewatering structures as soon as practicable after the completion of dewatering activities.

C. RESTORATION

LNG Facility: This land use will be converted to an operating industrial facility. All wetlands and waters of the U.S. will be converted to industrial land use. Impacts to wetlands and waters of the U.S. will be performed in accordance with all environmental permits and regulating authorities.
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1. Where the pipeline trench may drain a wetland, construct trench breakers at the wetland boundaries and/or seal the trench bottom as necessary to maintain the original wetland hydrology.
2. Restore pre-construction wetland contours to maintain the original wetland hydrology.
3. For each wetland crossed, install a trench breaker at the base of slopes near the boundary between the wetland and adjacent upland areas. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, install sediment barriers as outlined in the Plan. In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the wetland.
4. Do not use fertilizer, lime, or mulch unless required in writing by the appropriate federal or state agency.
5. Consult with the appropriate federal or state agencies to develop a project-specific wetland restoration plan. The restoration plan shall include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. Provide this plan to the FERC staff upon request.
6. Until a project-specific wetland restoration plan is developed and/or implemented, temporarily revegetate the construction right-of-way with annual ryegrass at a rate of 40 pounds/acre (unless standing water is present).
7. Ensure that all disturbed areas successfully revegetate with wetland herbaceous and/or woody plant species.
8. Remove temporary sediment barriers located at the boundary between wetland and adjacent upland areas after revegetation and stabilization of adjacent upland areas are judged to be successful as specified in section VII.A.4 of the Plan.

D. POST-CONSTRUCTION MAINTENANCE AND REPORTING

LNG Facility: This land use will be converted to an operating industrial facility. DWLNG will be responsible for the upkeep of landscaped areas and non-developed areas of the property. The schedule and frequency of maintenance mowing will be as per facility operating and maintenance procedures. LNG Facility site restoration reporting will be independent of the Pipeline restoration reports.

1. Do not conduct routine vegetation mowing or clearing over the full width of the permanent right-of-way in wetlands. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating may be selectively cut and removed from the permanent right-of-way. Do not conduct any routine vegetation mowing or clearing in wetlands that are between HDD entry and exit points.
2. Do not use herbicides or pesticides in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency.
3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of wetland areas.
4. Monitor and record the success of wetland revegetation annually until wetland revegetation is successful.
5. Wetland revegetation shall be considered successful if all of the following criteria are satisfied:
 - a. the affected wetland satisfies the current federal definition for a wetland (i.e., soils, hydrology, and vegetation);
 - b. vegetation is at least 80 percent of either the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent wetland areas that were not disturbed by construction;

- c. if natural rather than active revegetation was used, the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion; and
 - d. invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.
6. Within 3 years after construction, file a report with the Secretary identifying the status of the wetland revegetation efforts and documenting success as defined in section VI.D.5, above. The requirement to file wetland restoration reports with the Secretary does not apply to projects constructed under the automatic authorization, prior notice, or advance notice provisions in the FERC's regulations.

For any wetland where revegetation is not successful at the end of 3 years after construction, develop and implement (in consultation with a professional wetland ecologist) a remedial revegetation plan to actively revegetate wetlands. Continue revegetation efforts and file a report annually documenting progress in these wetlands until wetland revegetation is successful.

VII. HYDROSTATIC TESTING

A. NOTIFICATION PROCEDURES AND PERMITS

1. Apply for state-issued water withdrawal permits, as required.
2. Apply for National Pollutant Discharge Elimination System (NPDES) or state-issued discharge permits, as required.
3. Notify appropriate state agencies of intent to use specific sources at least 48 hours before testing activities unless they waive this requirement in writing.

B. GENERAL

1. Perform 100 percent radiographic inspection of all pipeline section welds or hydrotest the pipeline sections, before installation under waterbodies or wetlands.
2. If pumps used for hydrostatic testing are within 100 feet of any waterbody or wetland, address secondary containment and refueling of these pumps in the project's Spill Prevention and Response Procedures.
3. The project sponsor shall file with the Secretary before construction a list identifying the location of all waterbodies proposed for use as a hydrostatic test water source or discharge location. This filing requirement does not apply to projects constructed under the automatic authorization provisions of the FERC's regulations.

C. INTAKE SOURCE AND RATE

1. Screen the intake hose to minimize the potential for entrainment of fish.
2. Do not use state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and/or local permitting agencies grant written permission.
3. Maintain adequate flow rates to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users.
4. Locate hydrostatic test manifolds outside wetlands and riparian areas to the maximum extent practicable.

D. DISCHARGE LOCATION, METHOD, AND RATE

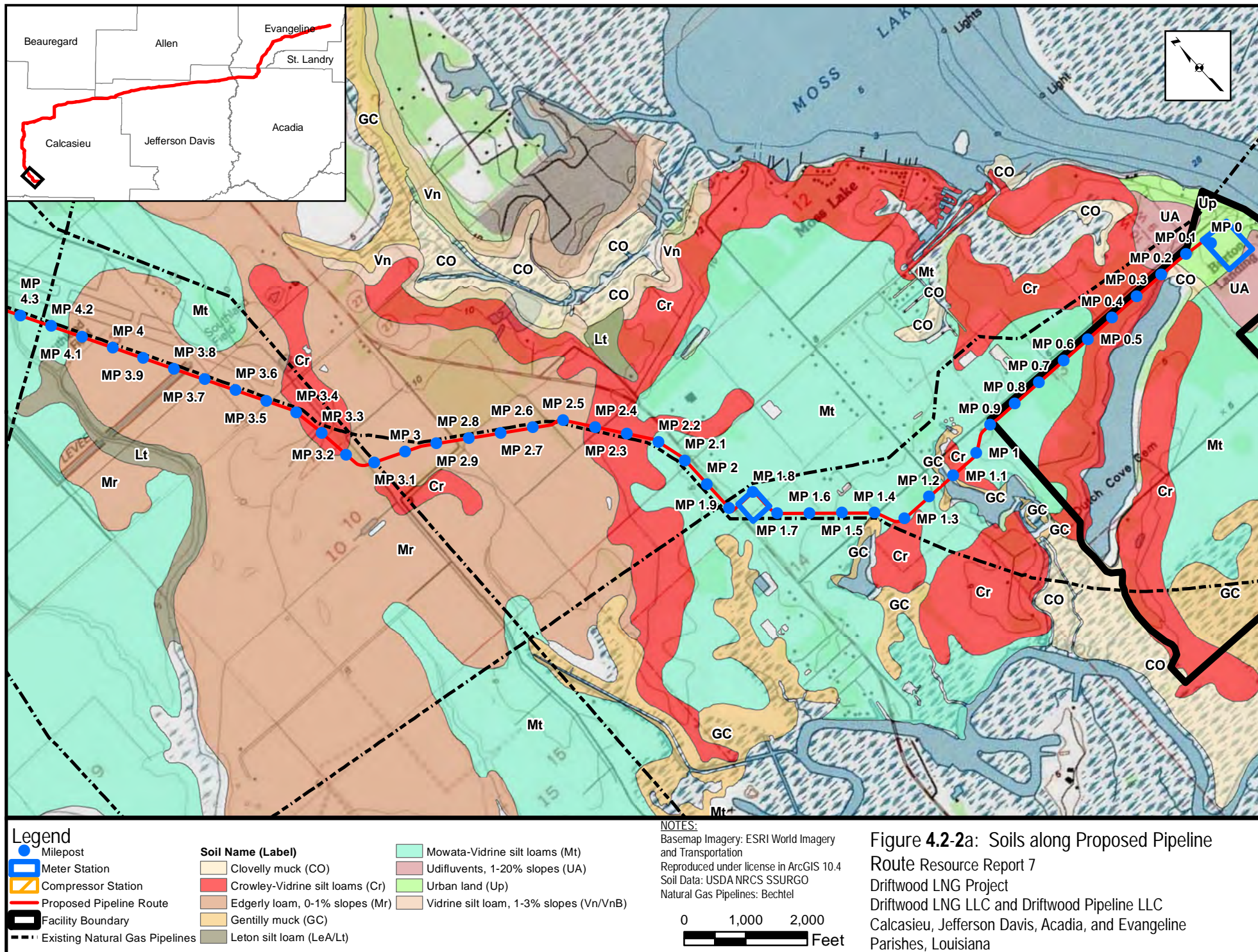
1. Regulate discharge rate, use energy dissipation device(s), and install sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow.
2. Do not discharge into state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and local permitting agencies grant written permission.

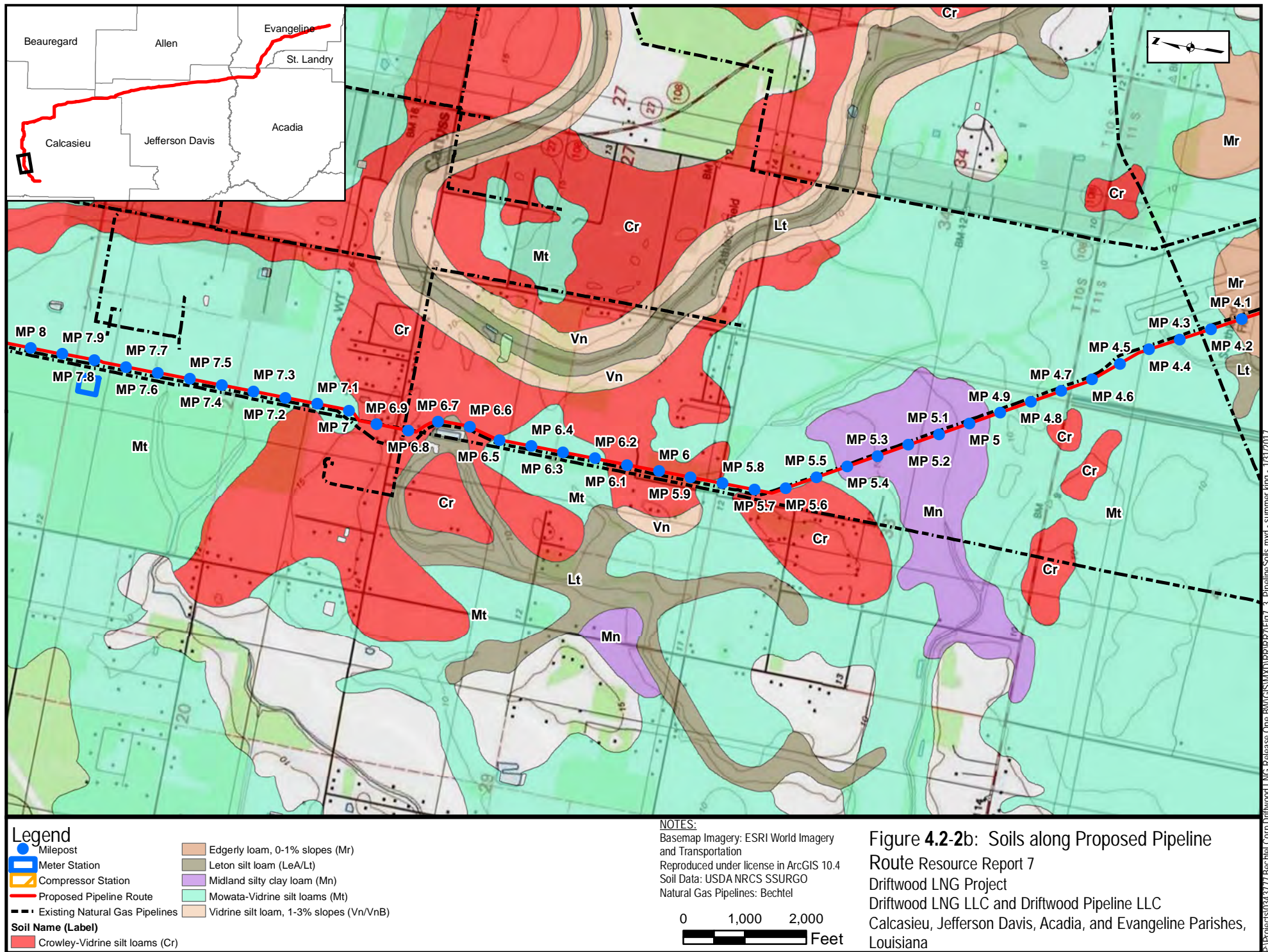
APPENDIX D

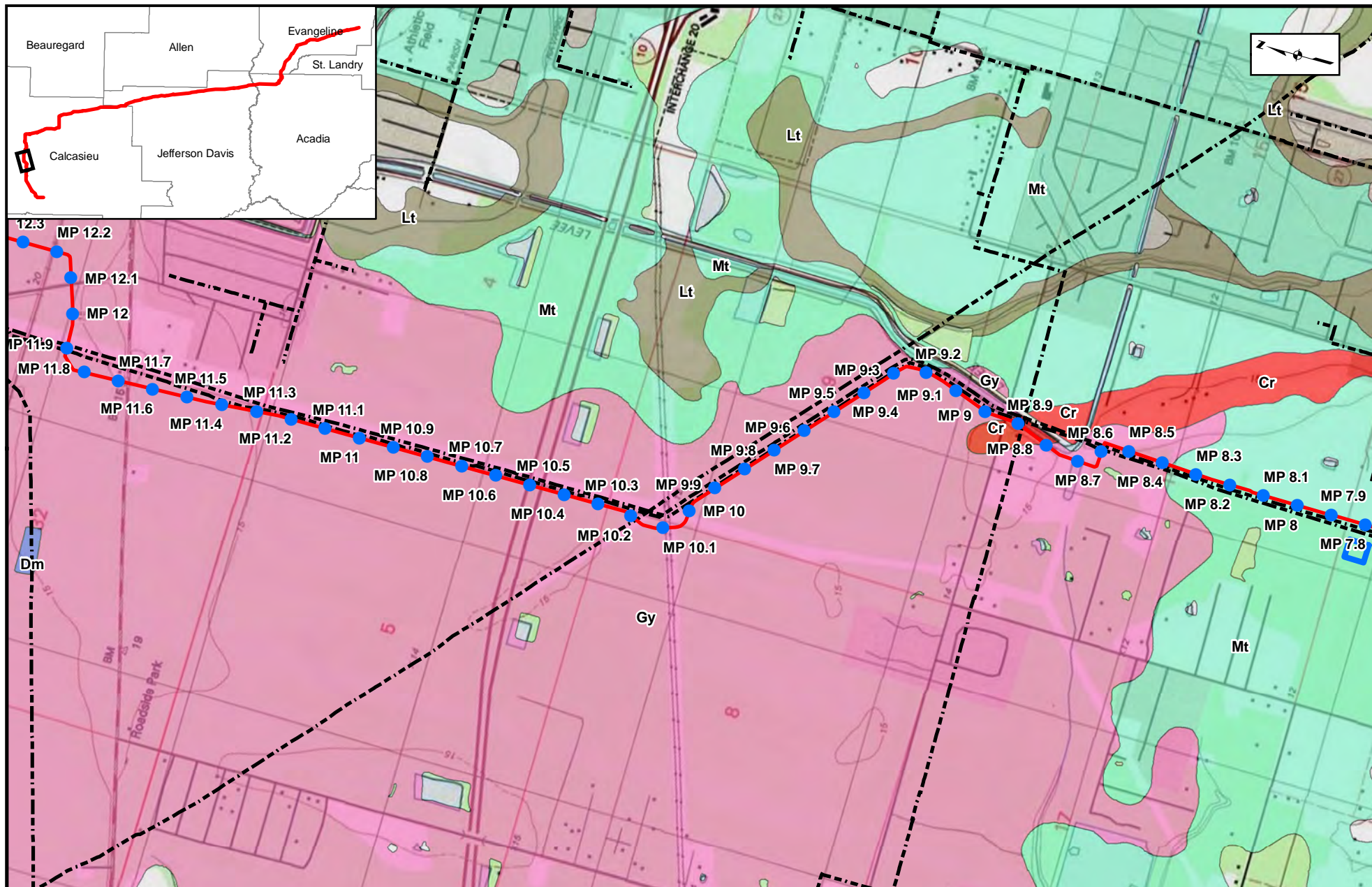
ADDITIONAL FIGURES

Figure 4.2-2 Soils along Pipeline Route

Figure 4.14-2 Aerial Map of Cumulative Projects







Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

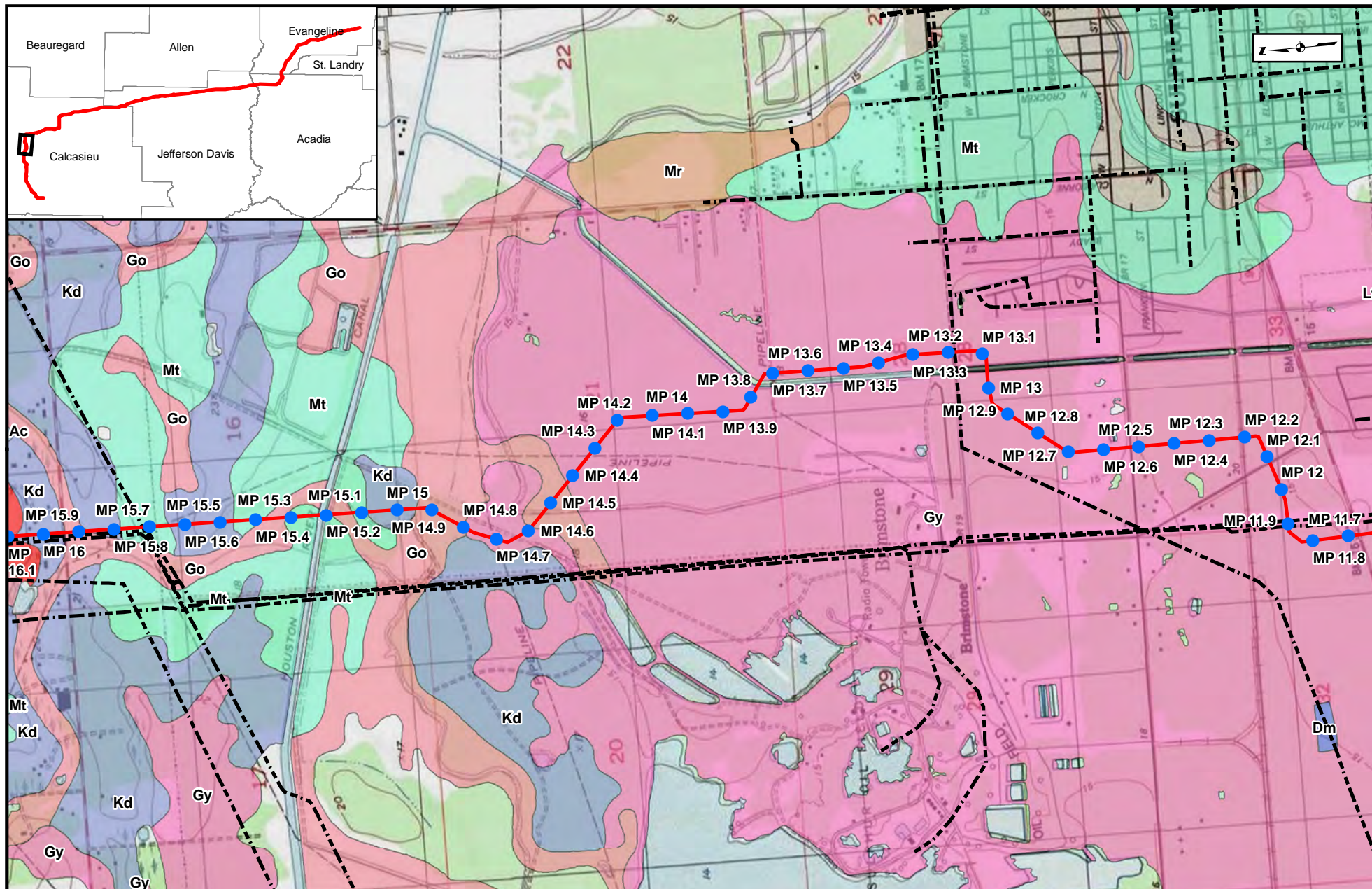
- Crowley-Vidrine silt loams (Cr)
- Dumps (Dm)
- Guyton-Messer silt loams (Gy)
- Leton silt loam (LeA/Lt)
- Mowata-Vidrine silt loams (Mt)

NOTES:

Basemap Imagery: ESRI World Imagery and Transportation
 Reproduced under license in ArcGIS 10.4
 Soil Data: USDA NRCS SSURGO
 Natural Gas Pipelines: Bechtel

0 1,000 2,000
 Feet

Figure 4.2-2c: Soils along Proposed Pipeline
 Route Resource Report 7
 Driftwood LNG Project
 Driftwood LNG LLC and Driftwood Pipeline LLC
 Calcasieu, Jefferson Davis, Acadia, and Evangeline
 Parishes, Louisiana



Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- Existing Natural Gas Pipelines

Soil Name (Label)

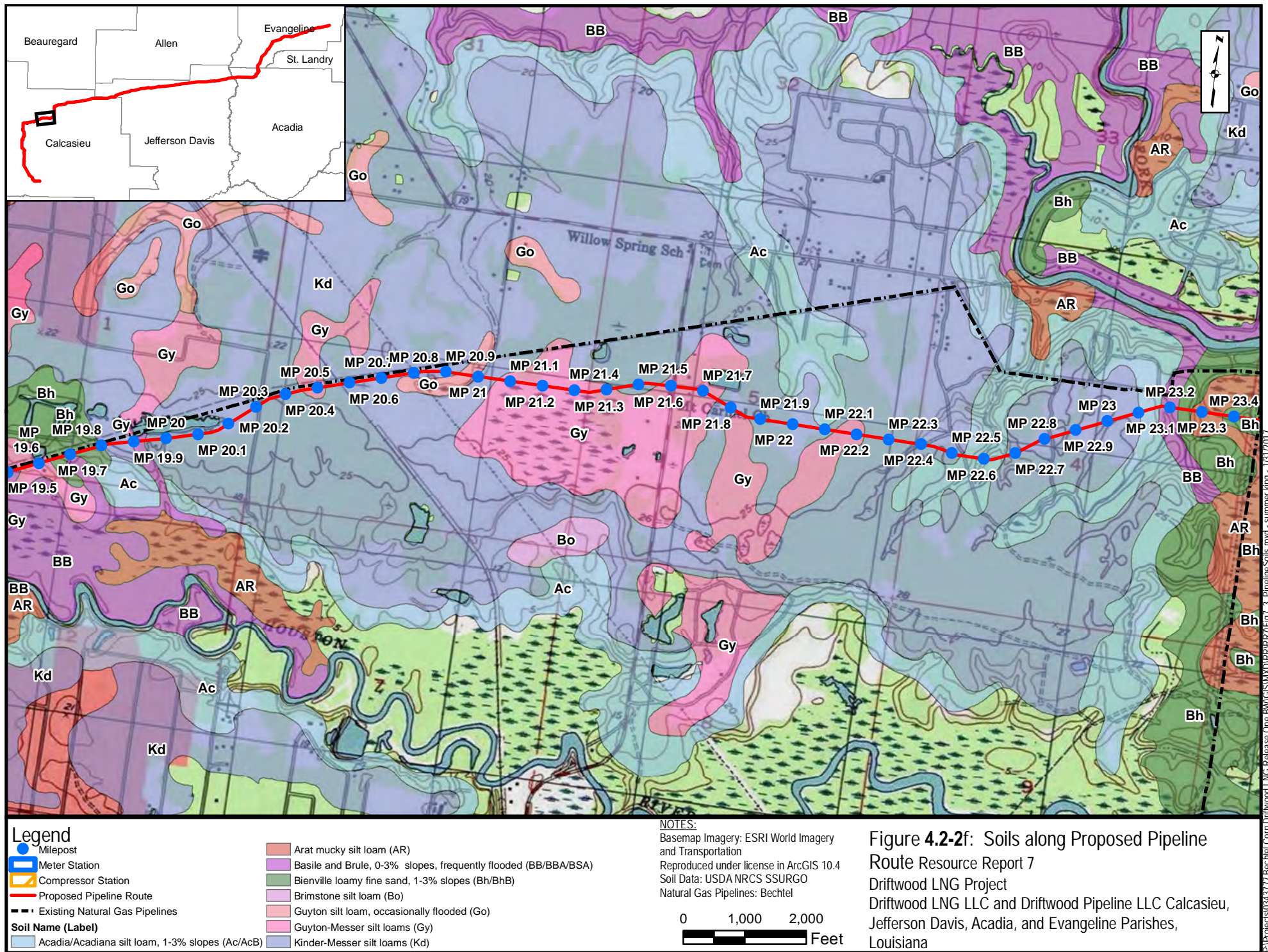
- Acadia/Acadiana silt loam, 1-3% slopes (Ac/AcB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley-Vidrine silt loams (Cr)
- Dumps (Dm)
- Edgerly loam, 0-1% slopes (Mr)
- Guyton silt loam, occasionally flooded (Go)
- Guyton-Messer silt loams (Gy)
- Kinder-Messer silt loams (Kd)
- Leton silt loam (Lt)
- Mowata-Vidrine silt loams (Mt)

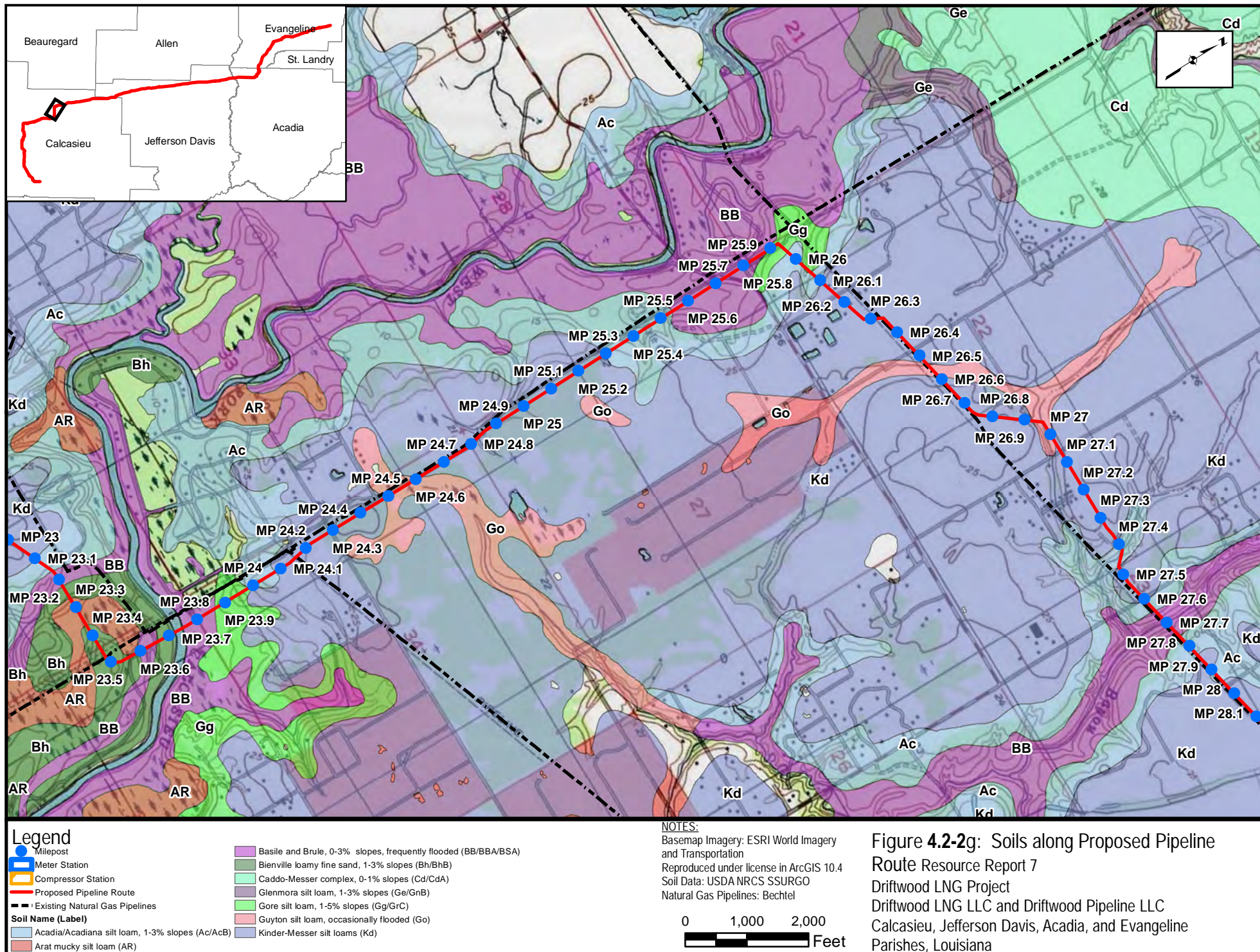
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 Soil Data: USDA NRCS SSURGO
 Natural Gas Pipelines: Bechtel

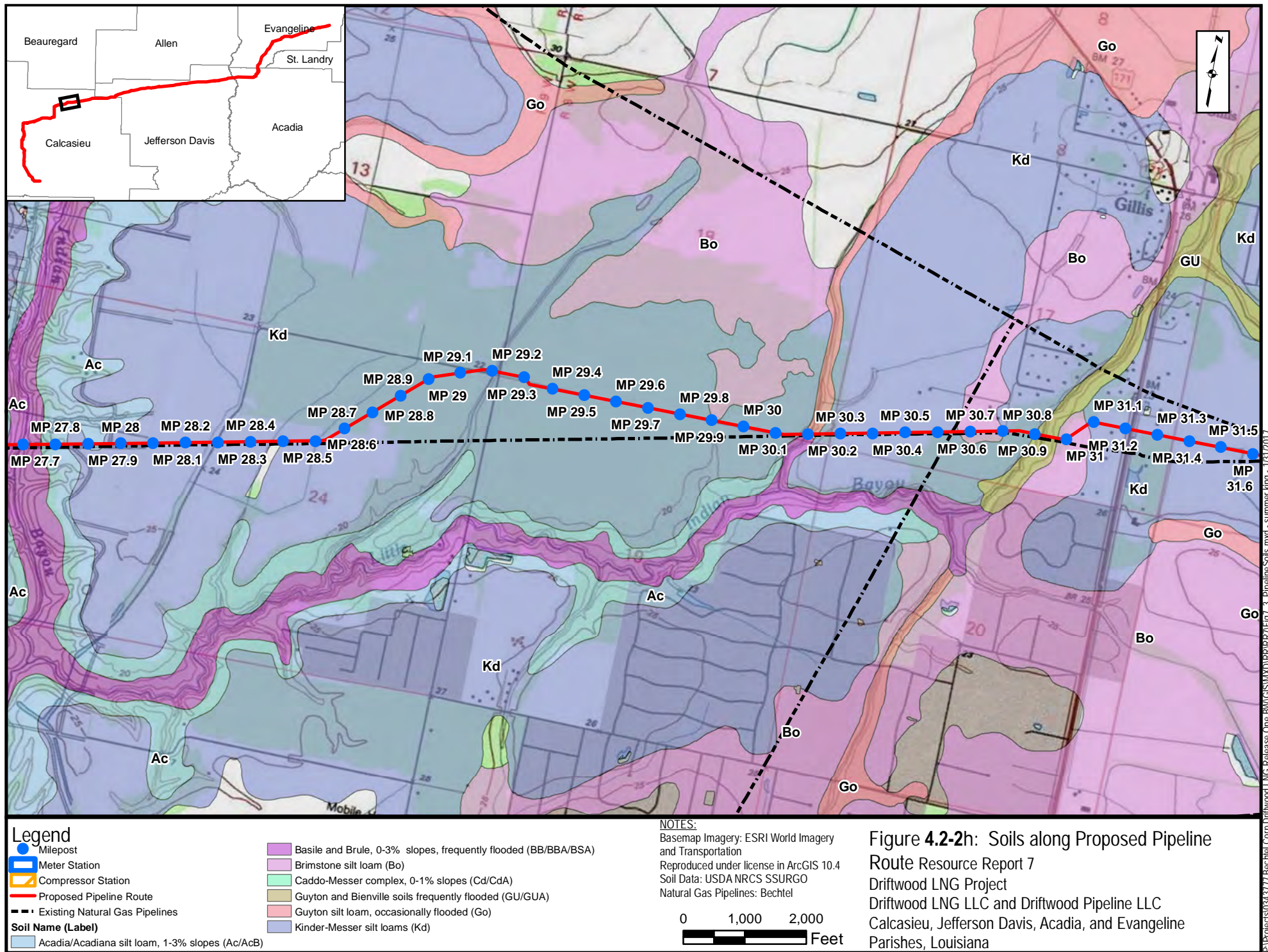
0 1,000 2,000 Feet

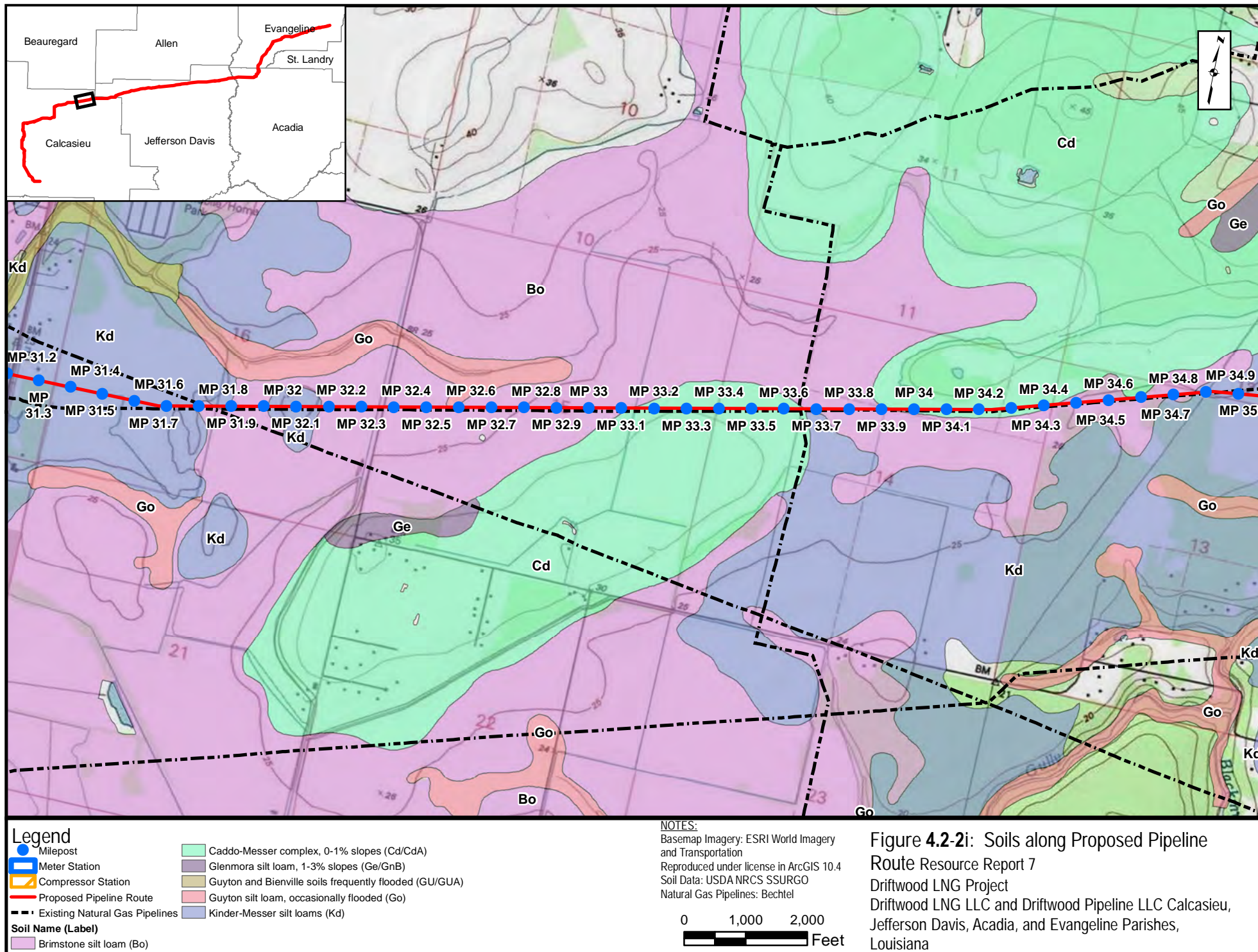
Figure 4.2-2d: Soils along Proposed Pipeline
 Route Resource Report 7
 Driftwood LNG Project
 Driftwood LNG LLC and Driftwood Pipeline LLC
 Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

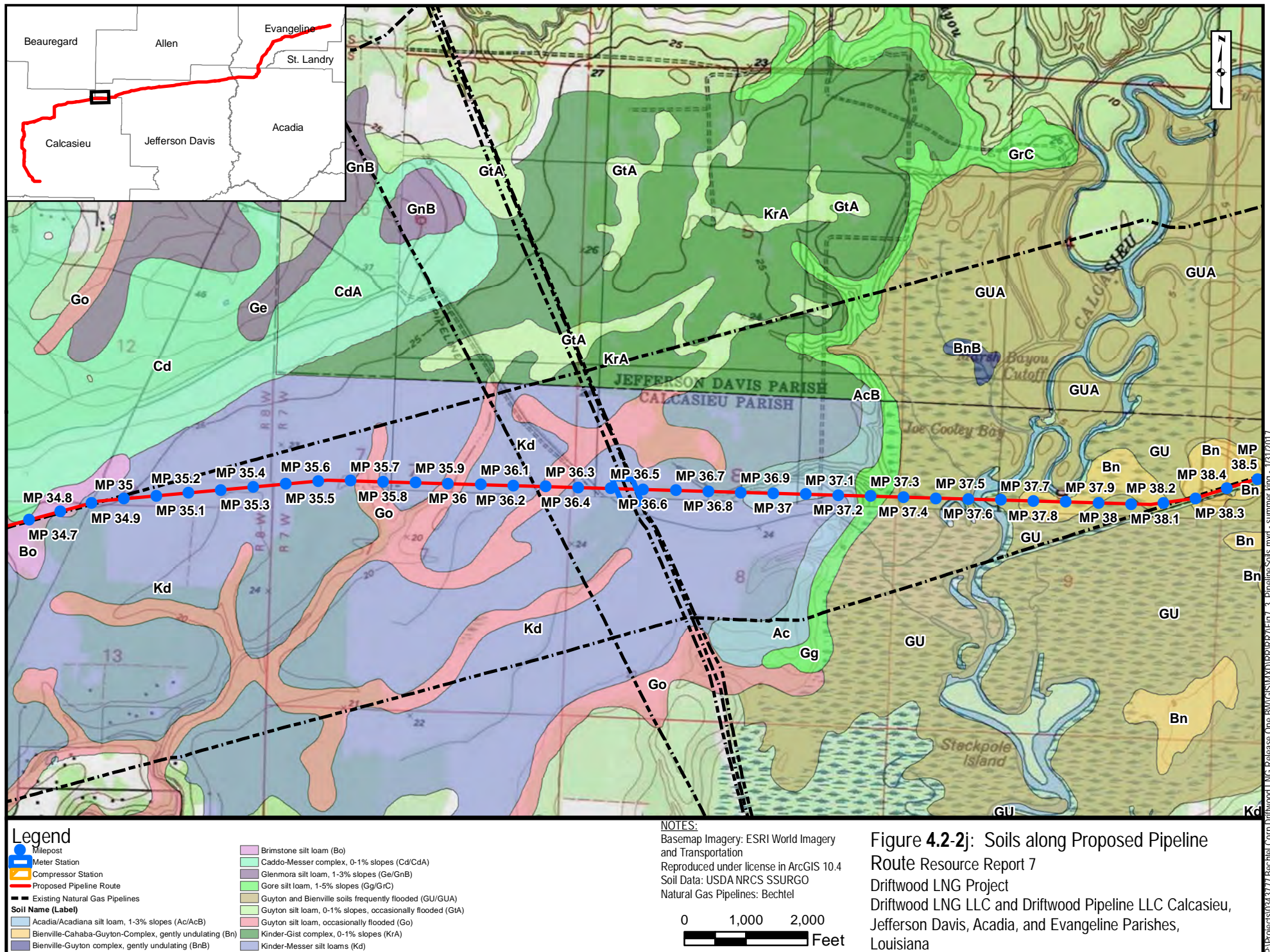
P:\Projects\03043777\Bechtel Corp Driftwood LNG Release One\BWGIS\MXD\RRR\RRR\Fig_4_2_PipelineSoils.mxd - summer king - 1/8/2017

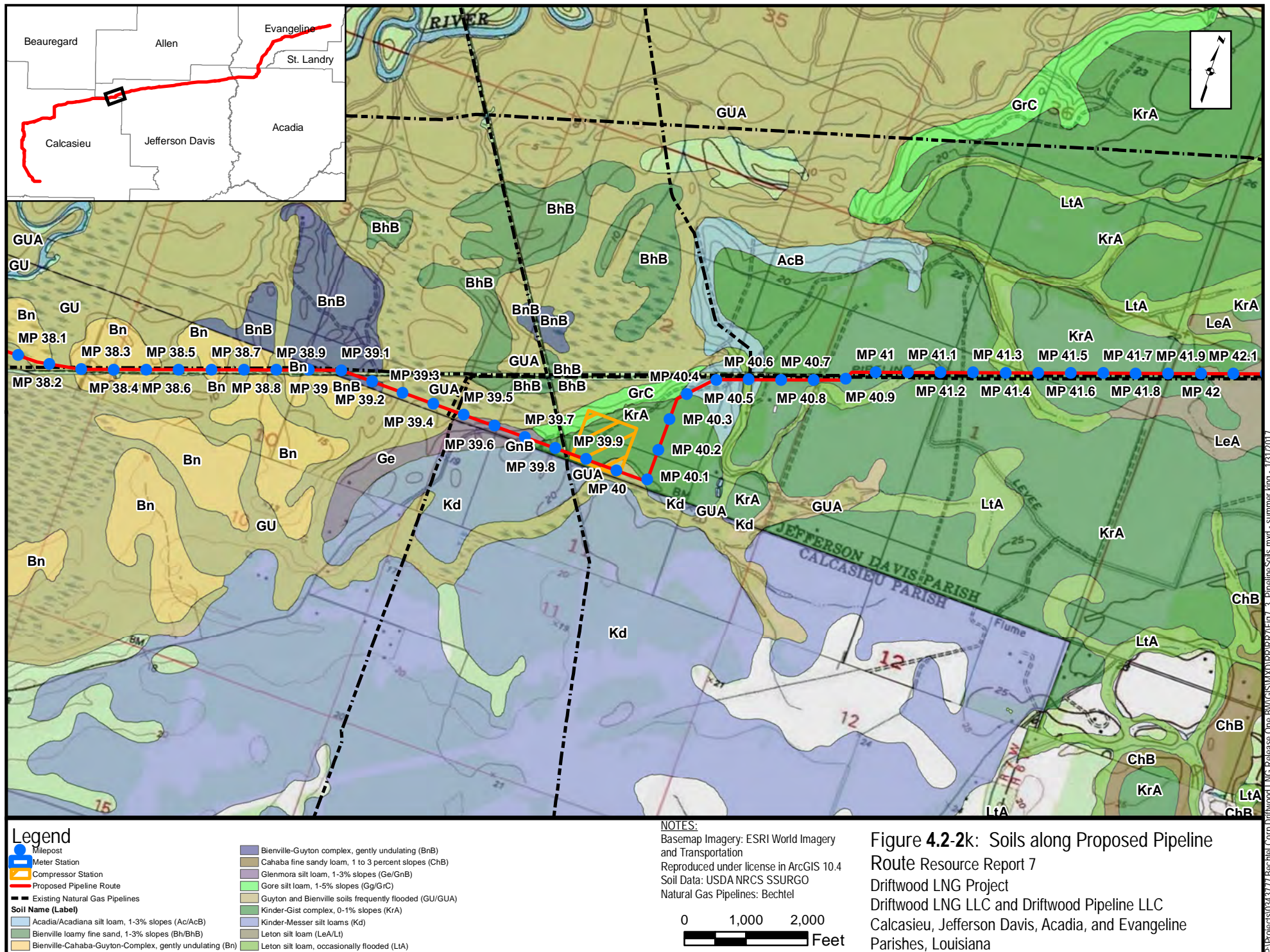


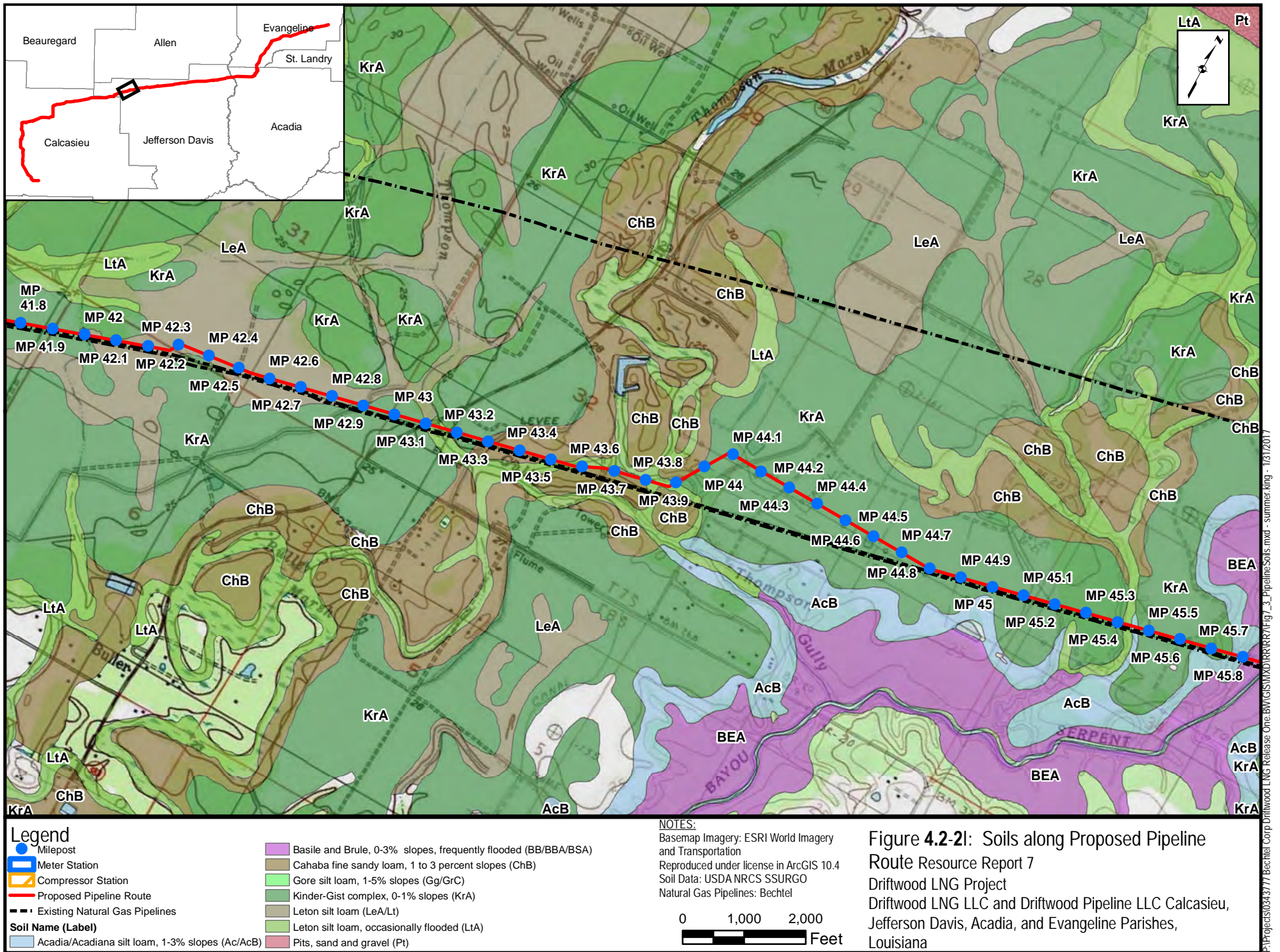


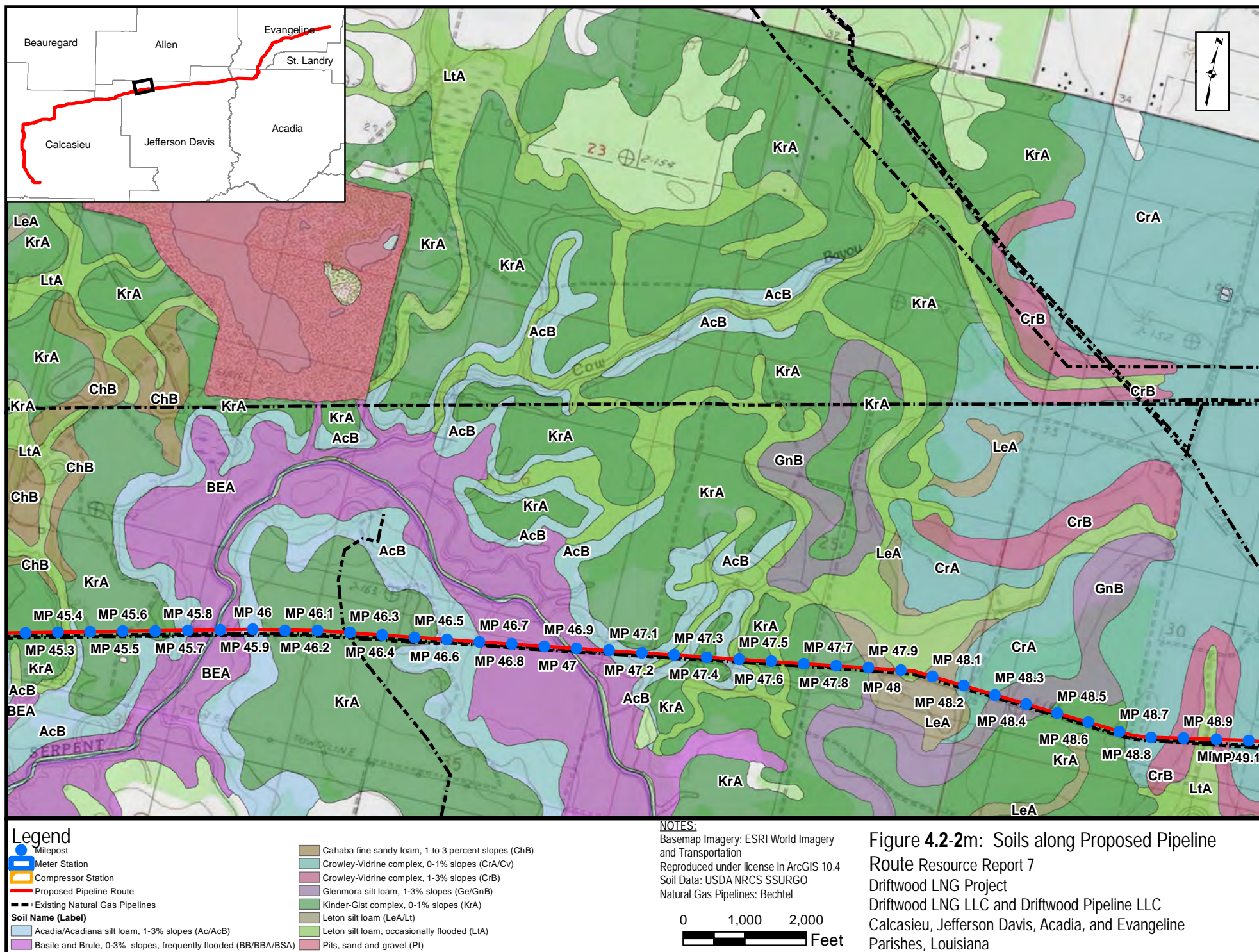


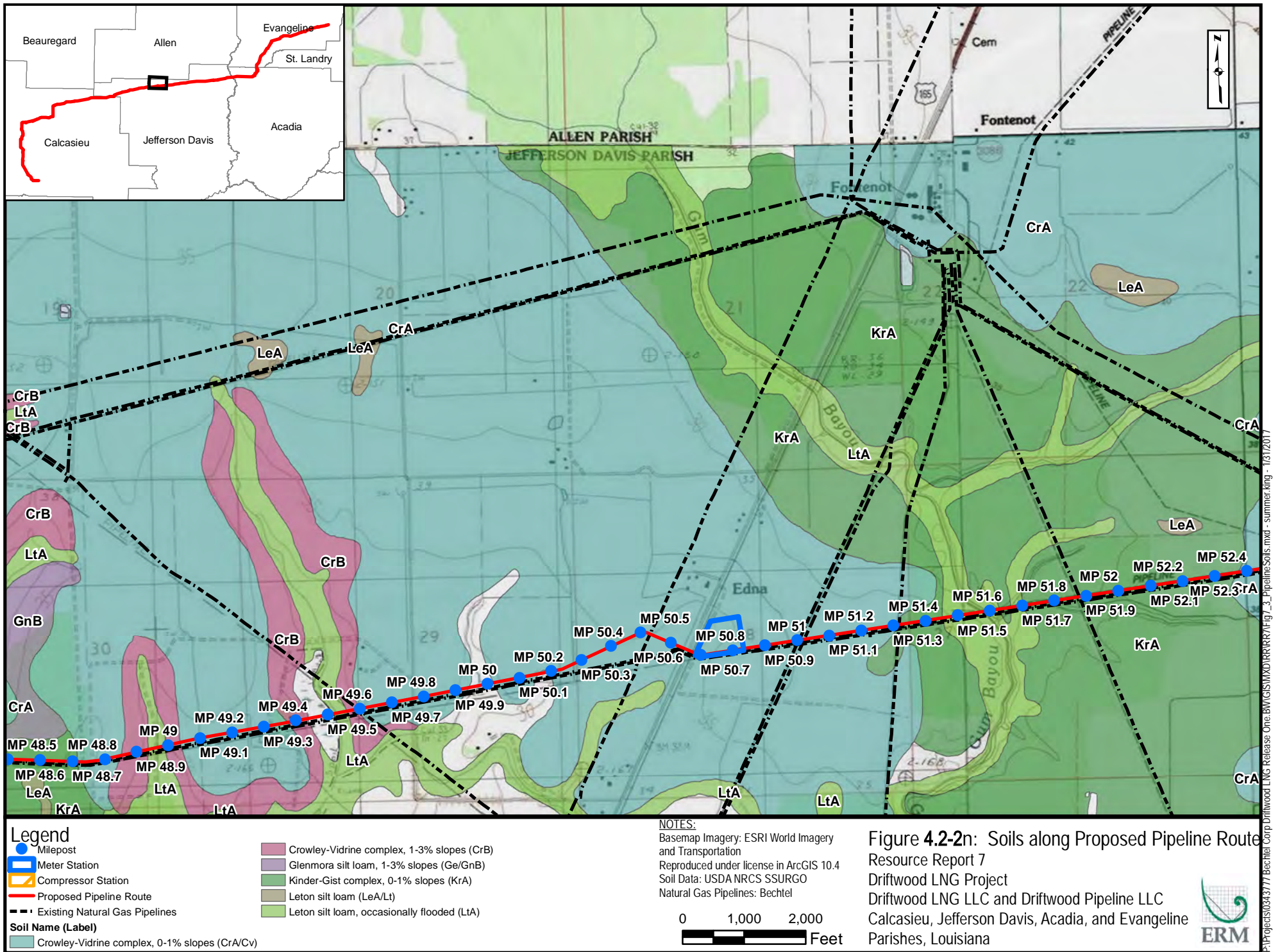


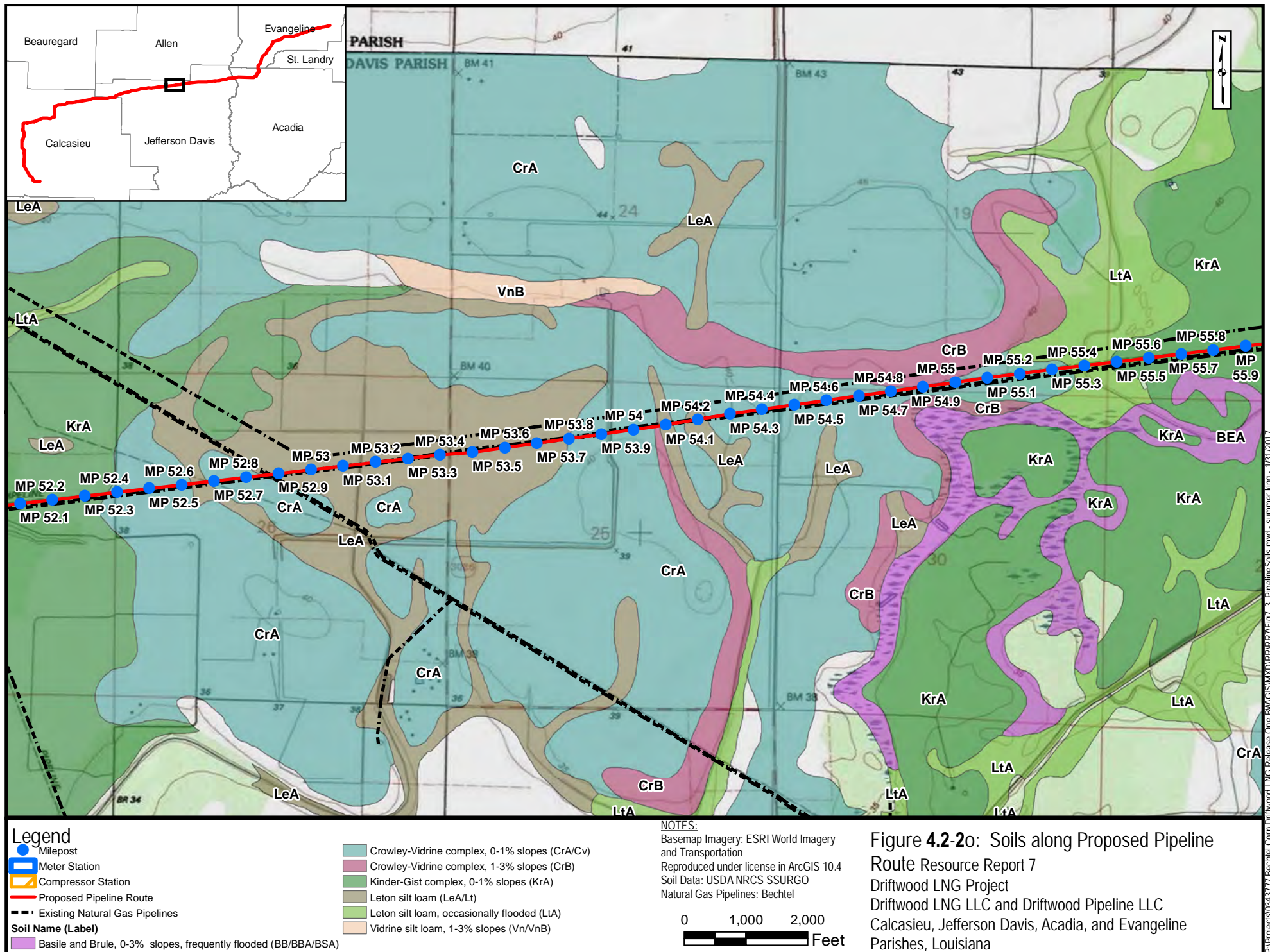


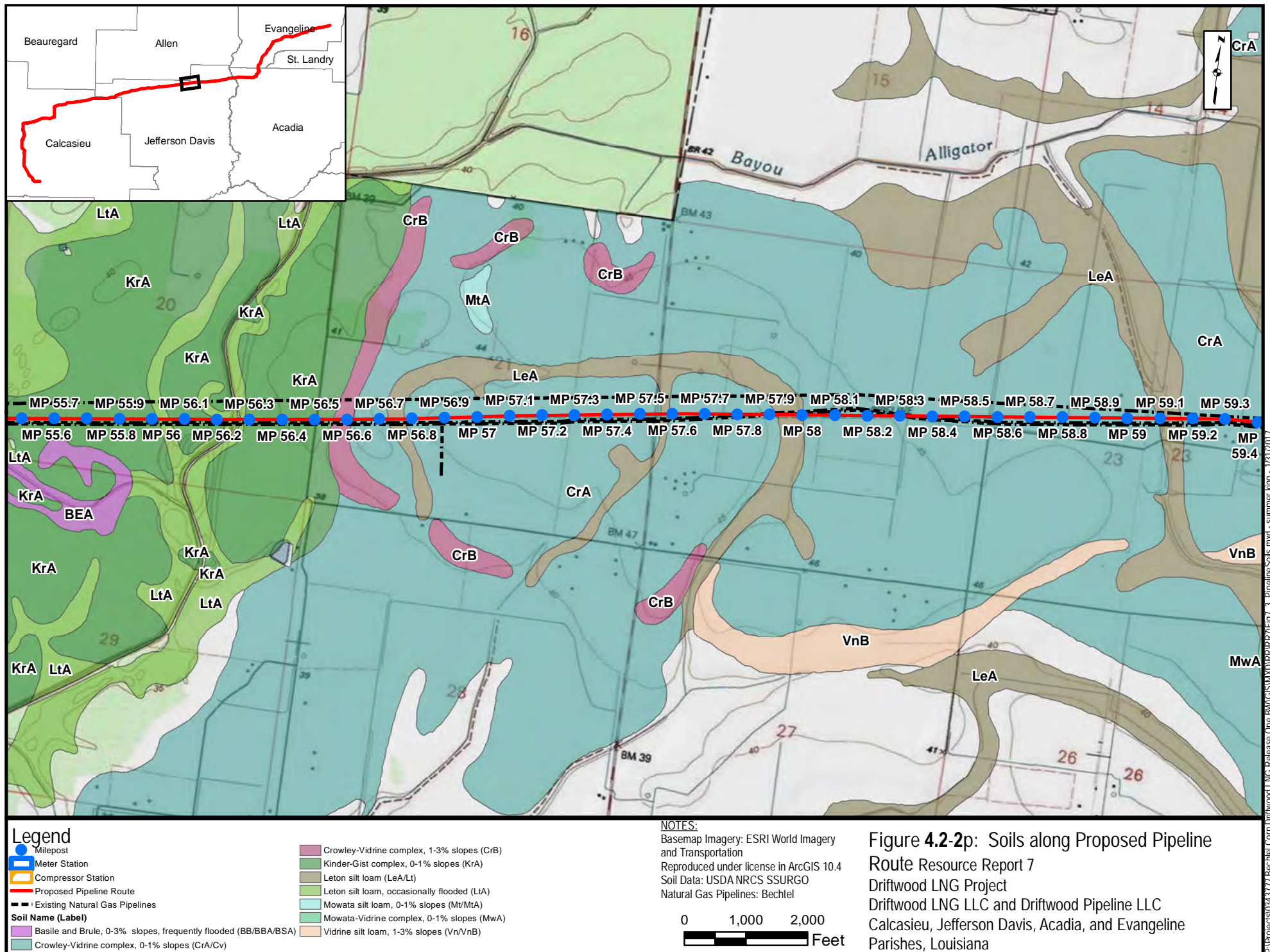


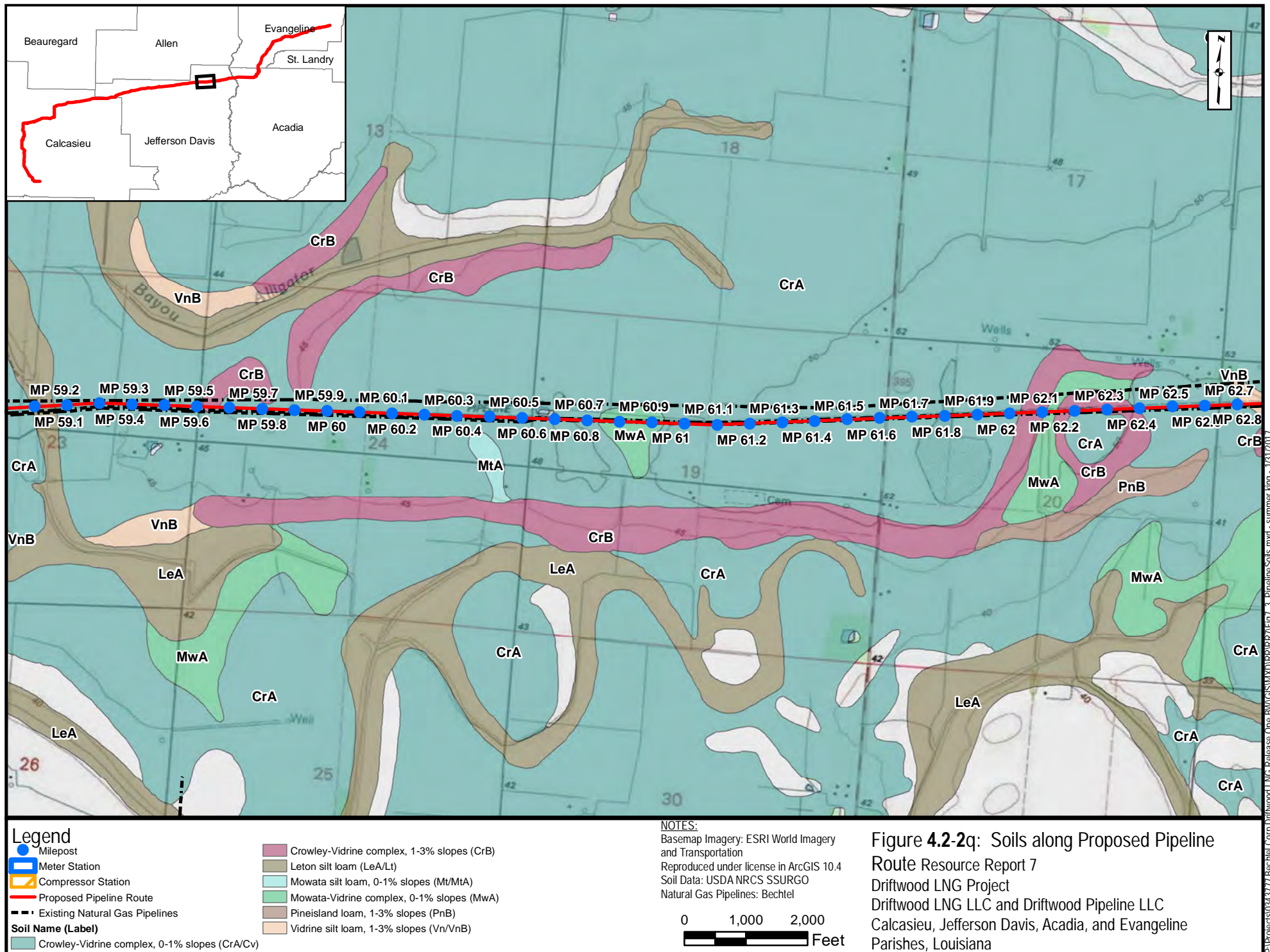


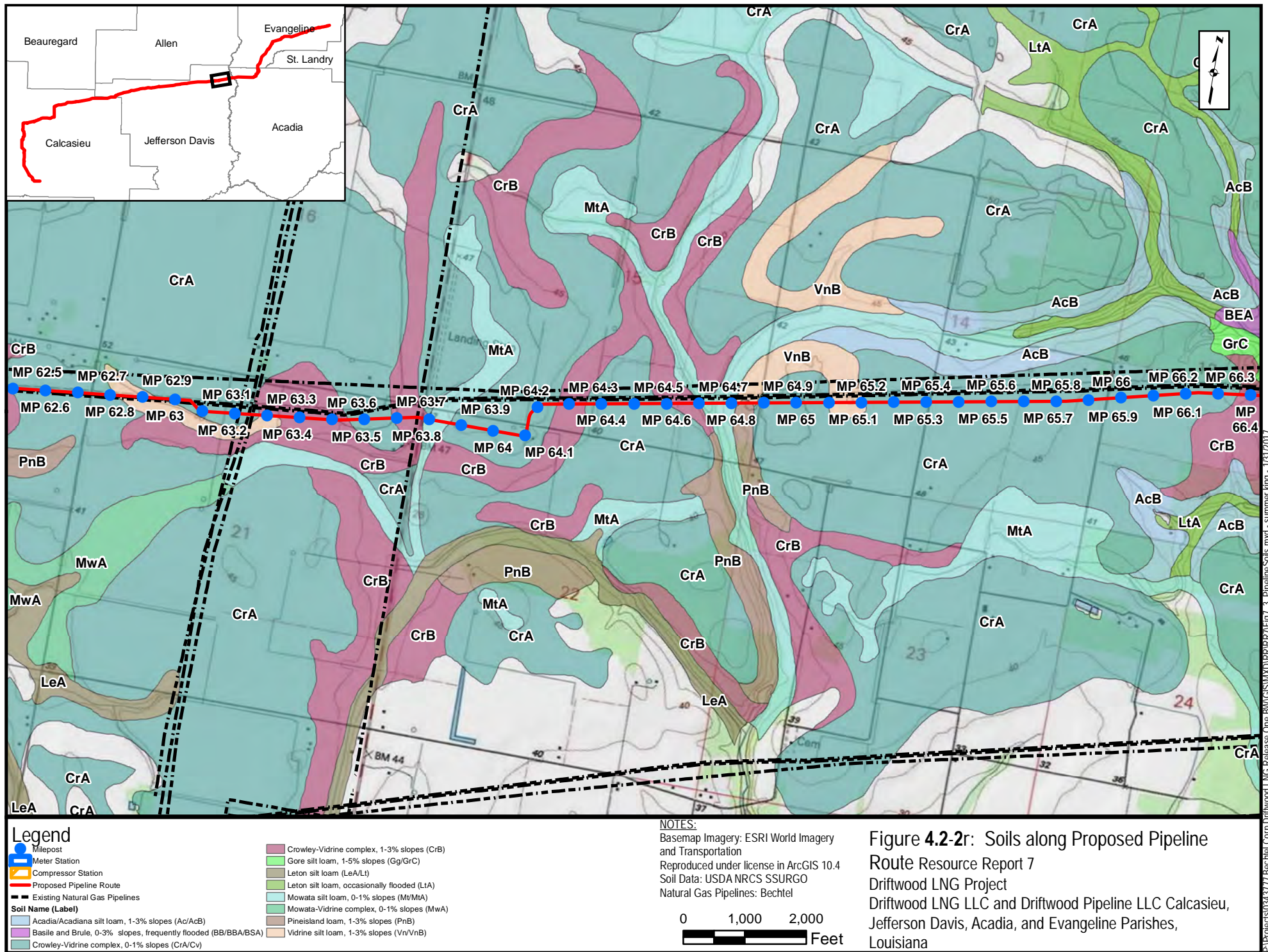


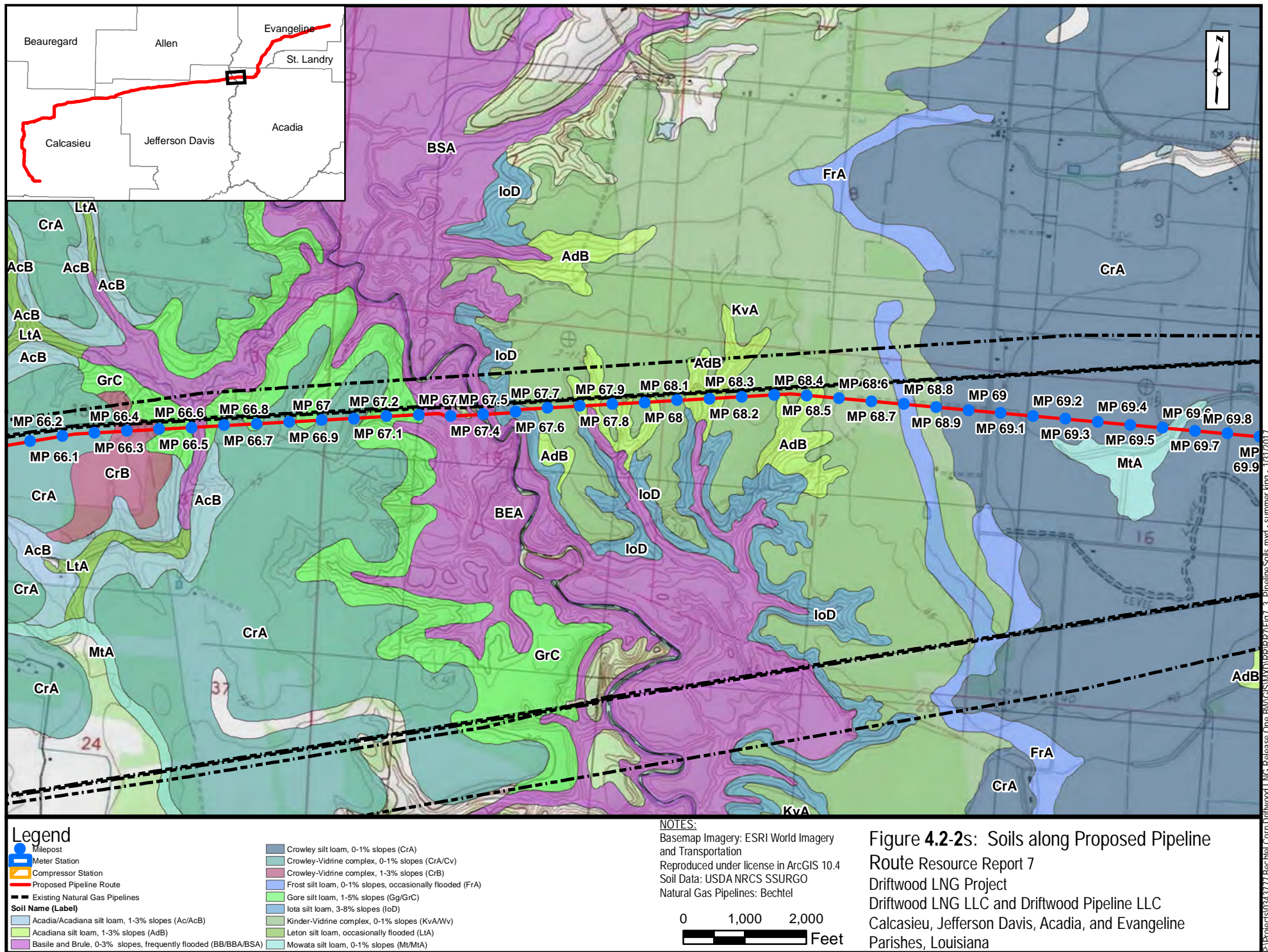




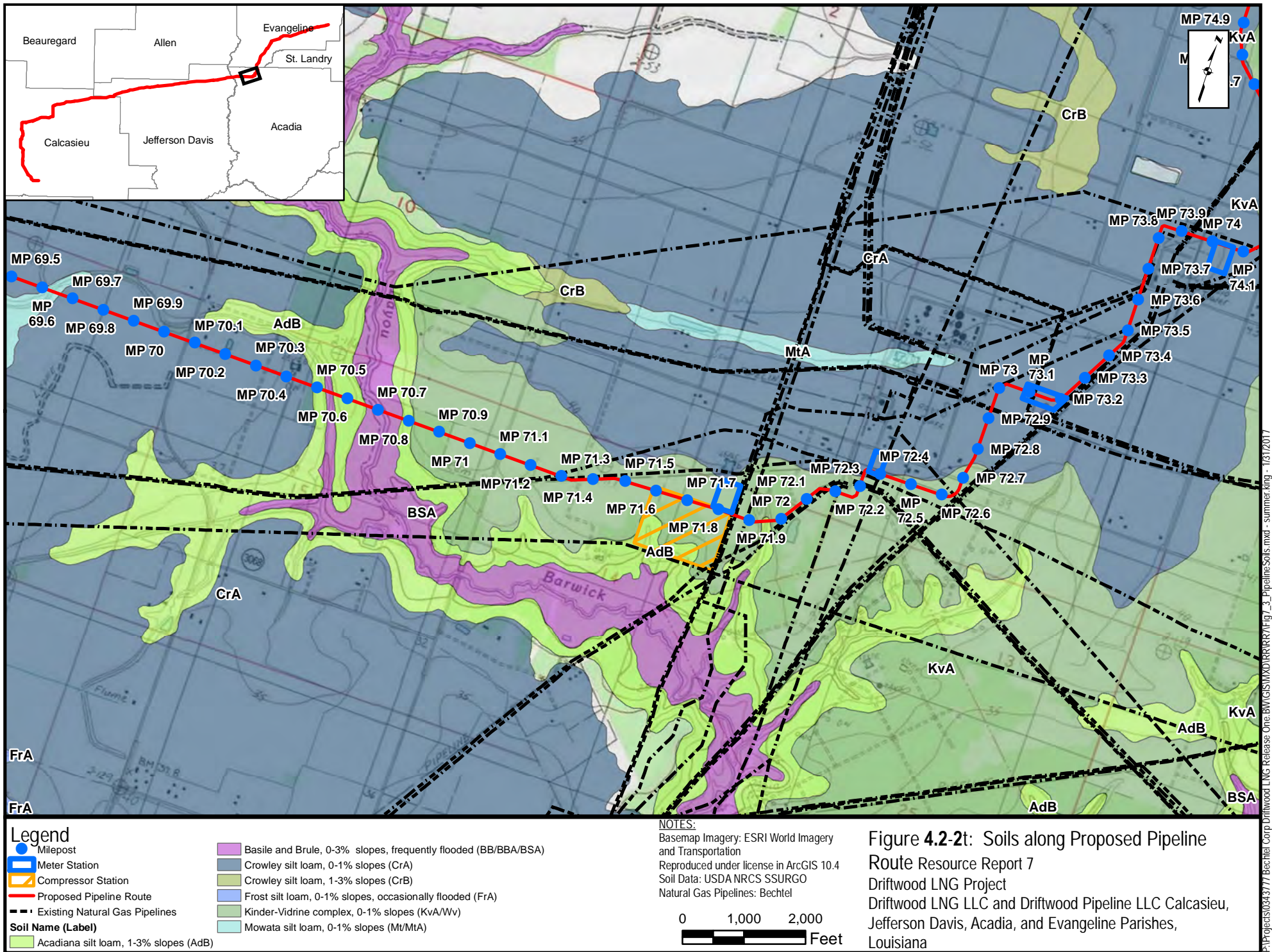


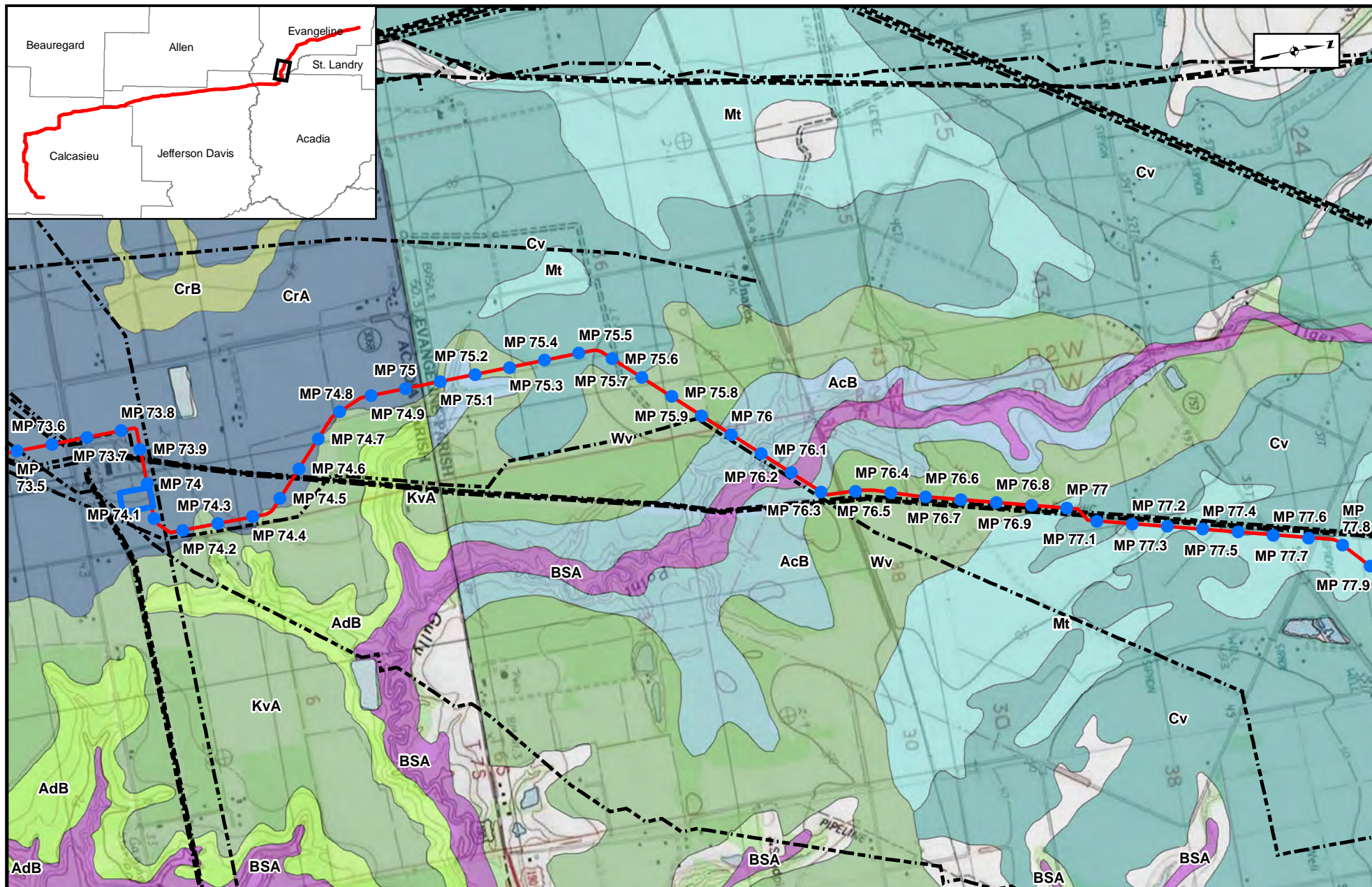






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Legend

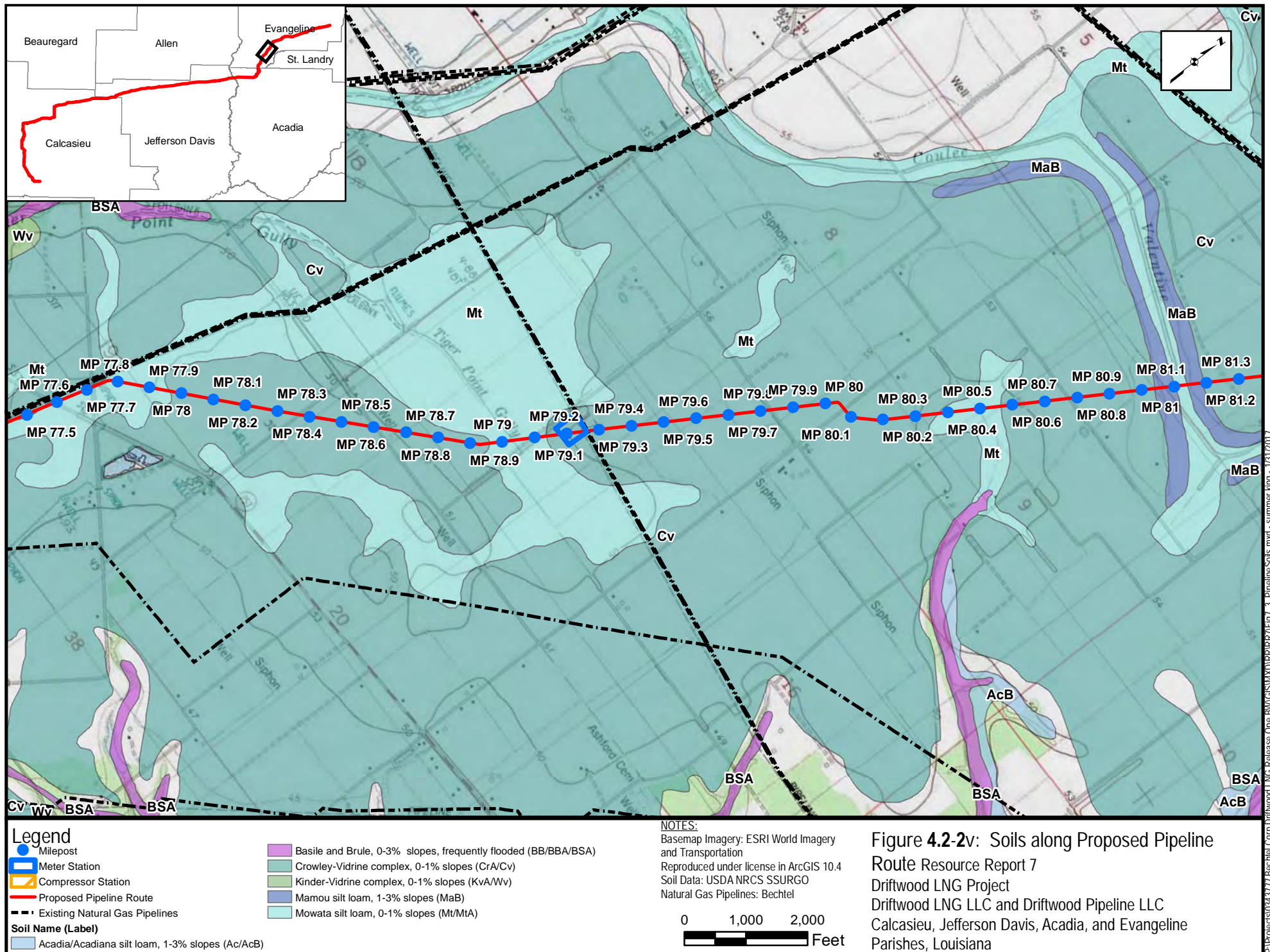
- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- - - Existing Natural Gas Pipelines
- Soil Name (Label)**
- Acadia/Acadiana silt loam, 1-3% slopes (Ac/CaB)
- Crowley silt loam, 1-3% slopes (CrB)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mowata silt loam, 0-1% slopes (Mt/MtA)
- Acadiana silt loam, 1-3% slopes (AdB)
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)
- Crowley silt loam, 0-1% slopes (CrA)
- Crowley silt loam, 1-3% slopes (CrB)
- Crowley-Vidrine complex, 0-1% slopes (CrA/Cv)
- Kinder-Vidrine complex, 0-1% slopes (KvA/Wv)
- Mowata silt loam, 0-1% slopes (Mt/MtA)

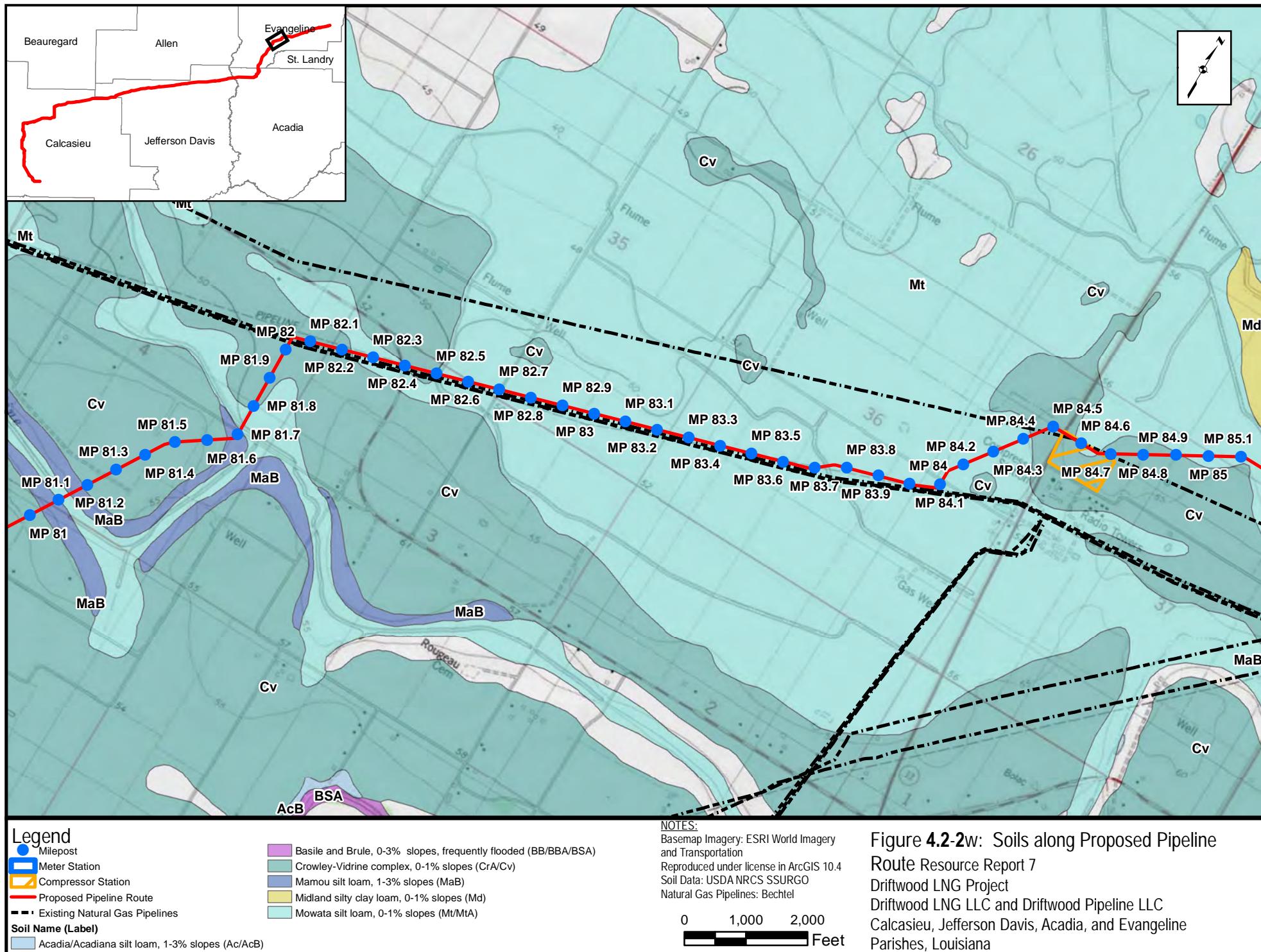
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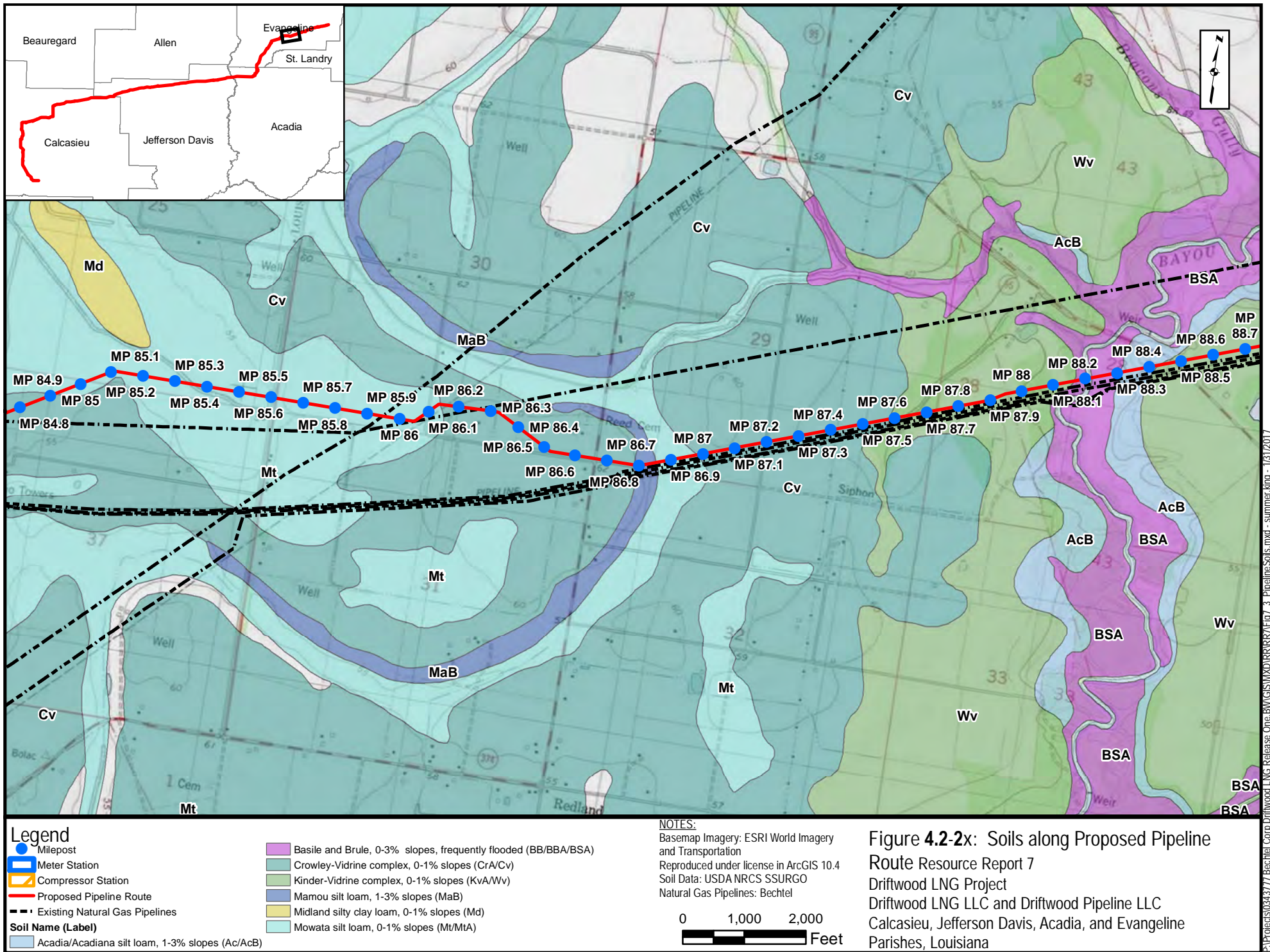
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 Reproduced under license in ArcGIS 10.4
 Soil Data: USDA NRCS SSURGO
 Natural Gas Pipelines: Bechtel

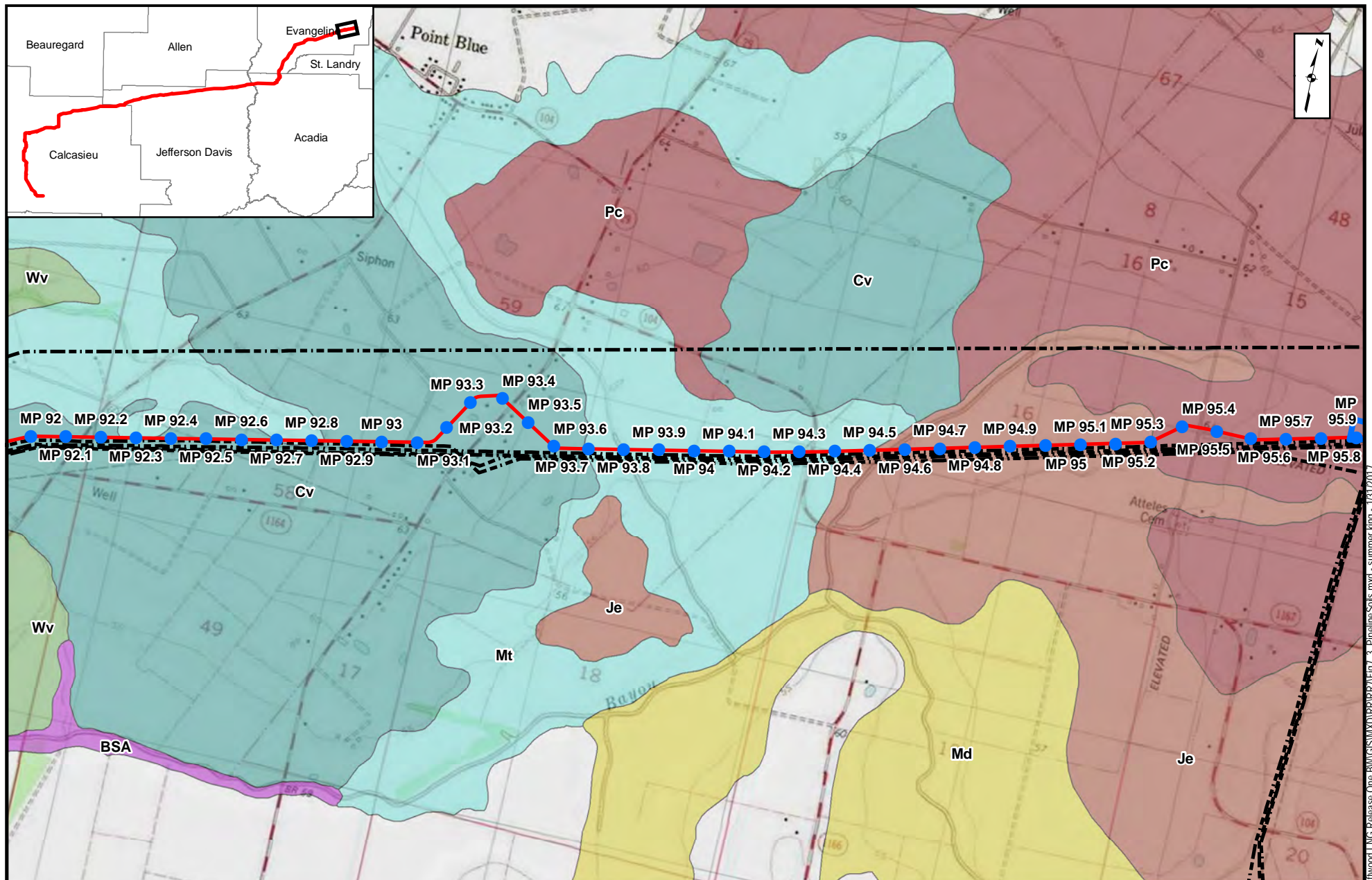
0 1,000 2,000
 Feet

Figure 4.2-2u: Soils along Proposed Pipeline Route Resource Report 7
 Driftwood LNG Project
 Driftwood LNG LLC and Driftwood Pipeline LLC
 Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana









Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- - - Existing Natural Gas Pipelines
- Soil Name (Label)**
- Basile and Brule, 0-3% slopes, frequently flooded (BB/BBA/BSA)

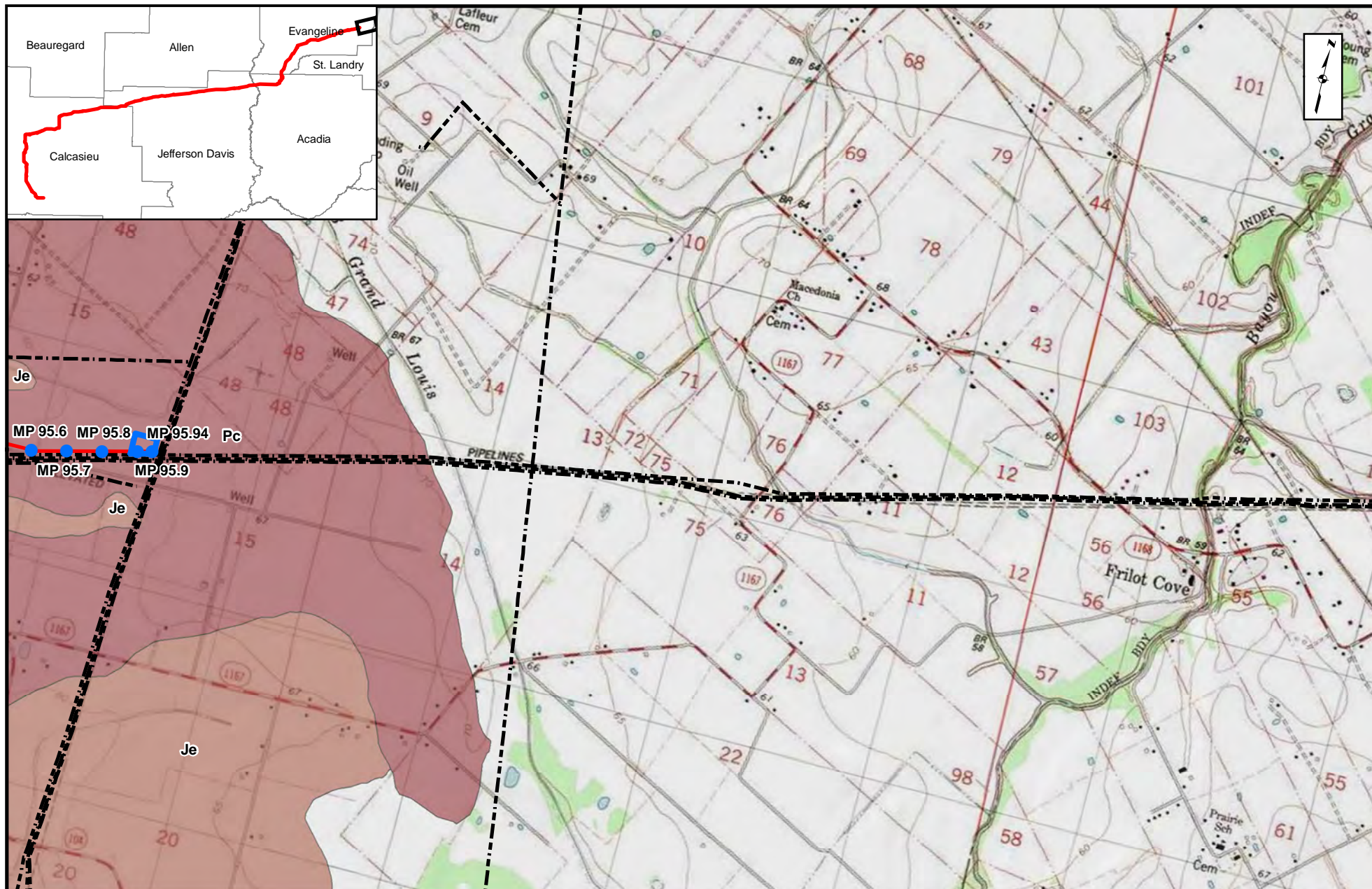
- Crowley-Vidrine complex, 0-1% slopes (Cr/Cv)
- Jeanerette silt loam (Je)
- Kinder-Vidrine complex, 0-1% slopes (Kv/Wv)
- Midland silty clay loam, 0-1% slopes (Md)
- Mowata silt loam, 0-1% slopes (Mt/Mta)
- Patoutville-Crowley complex, 0-1% slopes (Pc)

NOTES:

Basemap Imagery: ESRI World Imagery and Transportation
 Reproduced under license in ArcGIS 10.4
 Soil Data: USDA NRCS SSURGO
 Natural Gas Pipelines: Bechtel

0 1,000 2,000
 Feet

Figure 4.2-2z: Soils along Proposed Pipeline
 Route Resource Report 7
 Driftwood LNG Project
 Driftwood LNG LLC and Driftwood Pipeline LLC
 Calcasieu, Jefferson Davis, Acadia, and Evangeline
 Parishes, Louisiana



Legend

- Milepost
- Meter Station
- Compressor Station
- Proposed Pipeline Route
- - - Existing Natural Gas Pipelines

Soil Name (Label)

- Jeanerette silt loam (Je)
- Patoutville-Crowley complex, 0-1% slopes (Pc)

NOTES:

Basemap Imagery: ESRI World Imagery and Transportation
 Reproduced under license in ArcGIS 10.4
 Soil Data: USDA NRCS SSURGO
 Natural Gas Pipelines: Bechtel

0 1,000 2,000
 Feet

Figure 4.2-2aa: Soils along Proposed Pipeline
 Route Resource Report 7
 Driftwood LNG Project
 Driftwood LNG LLC and Driftwood Pipeline LLC
 Calcasieu, Jefferson Davis, Acadia, and Evangeline
 Parishes, Louisiana

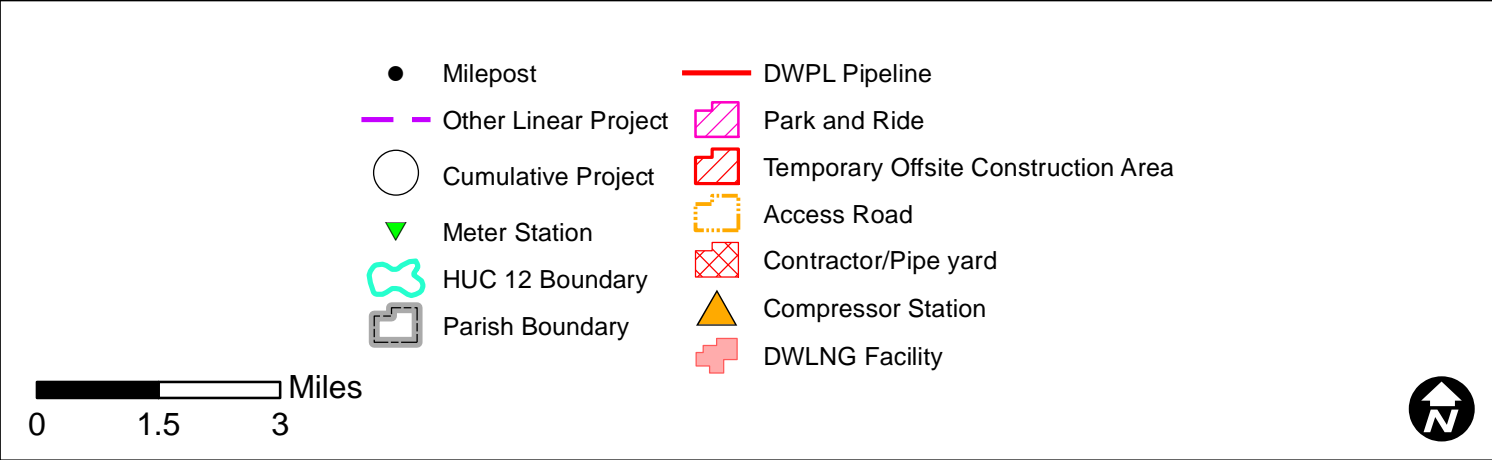
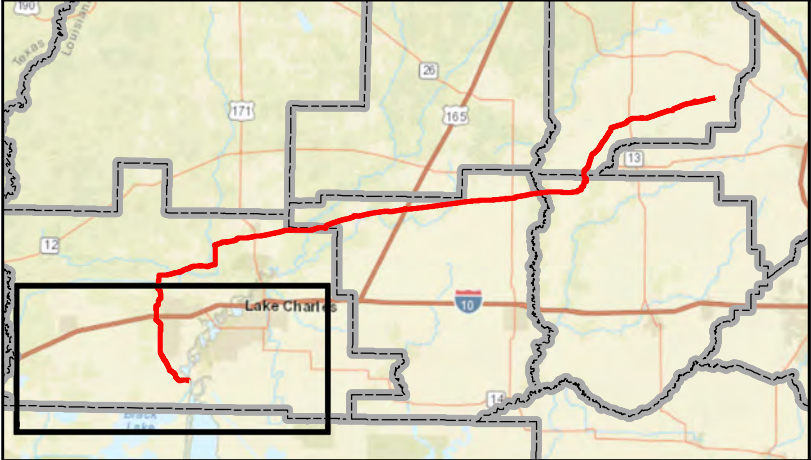
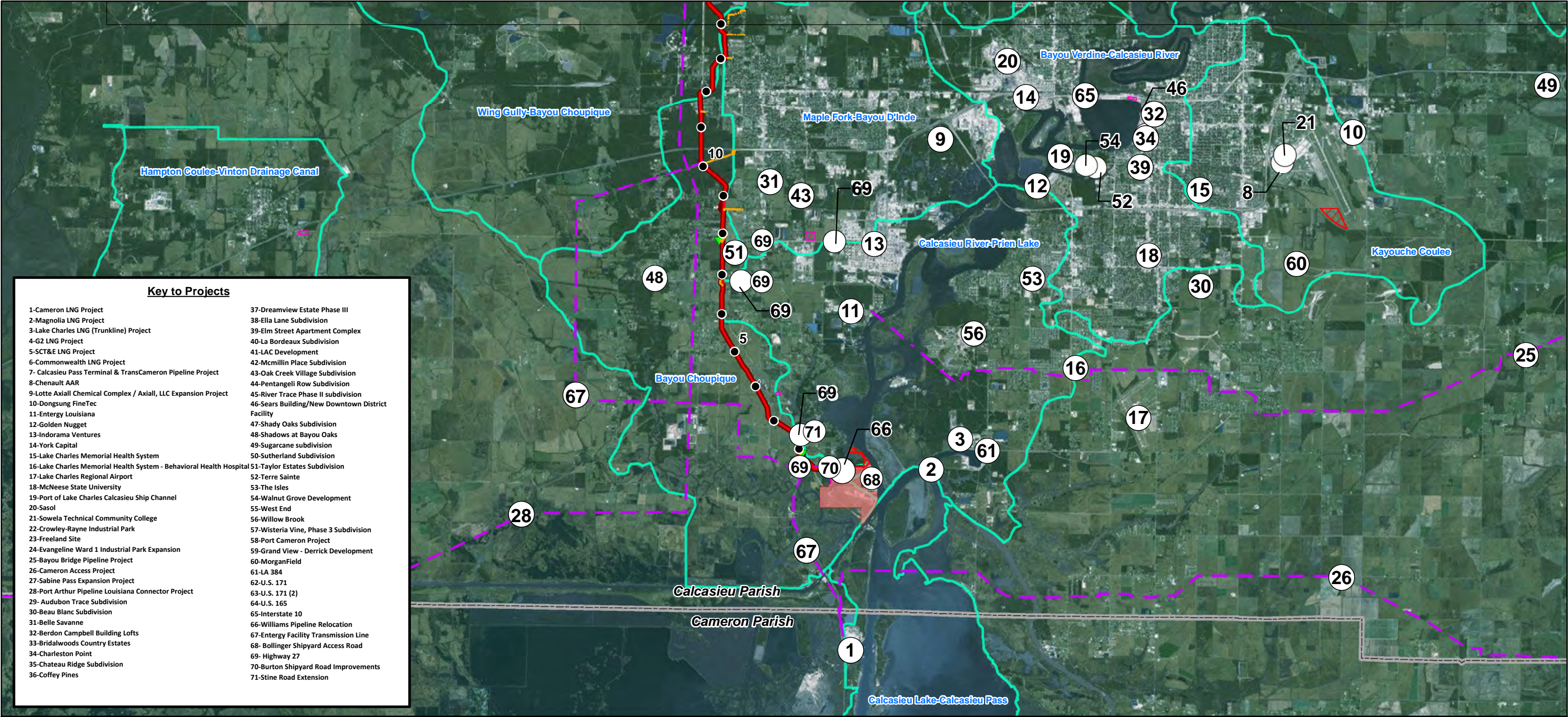
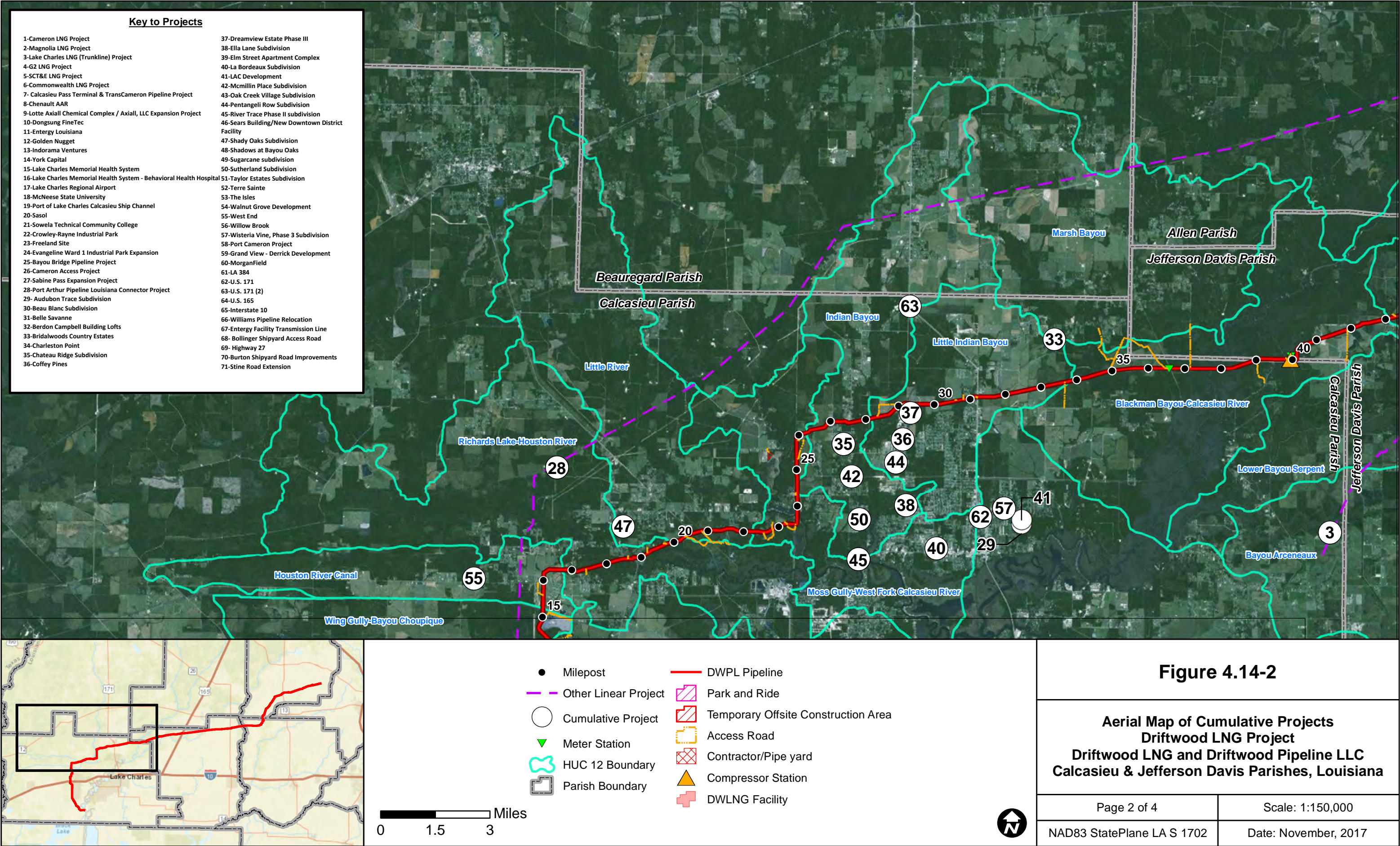
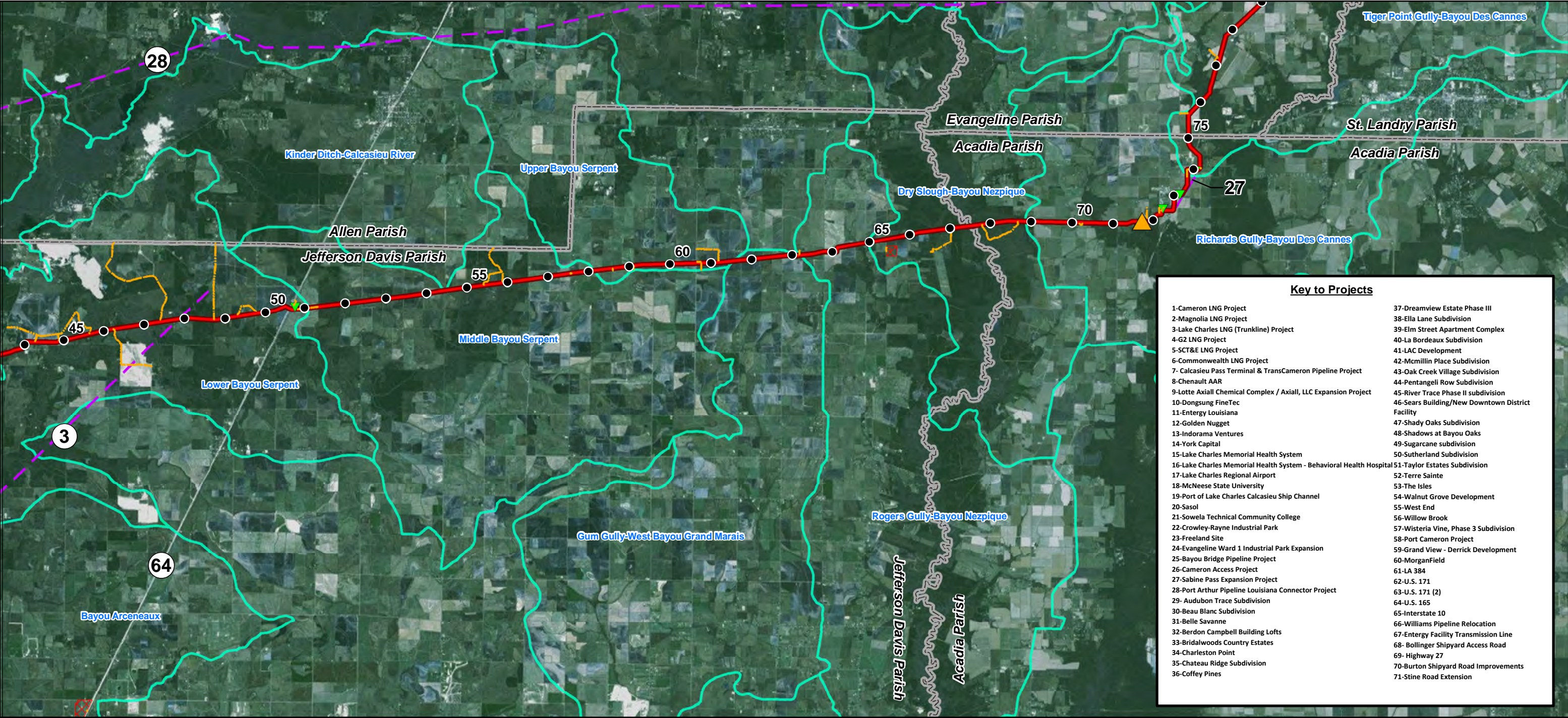


Figure 4.14-2

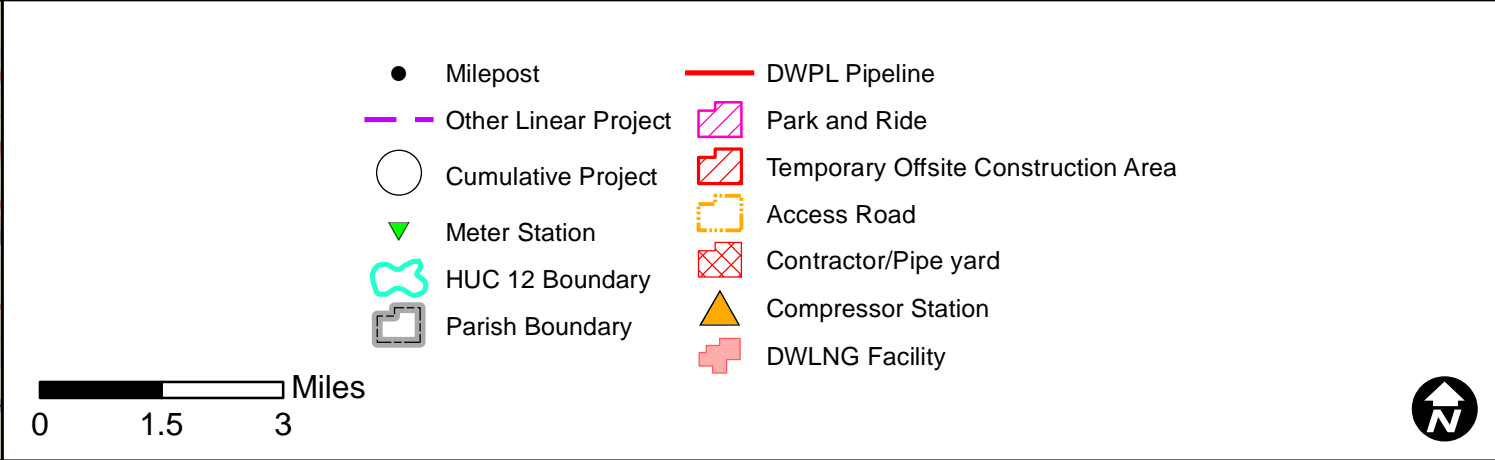
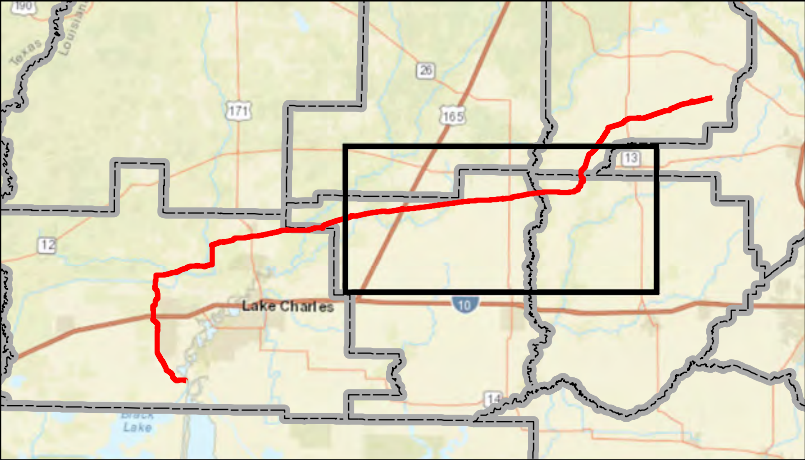
**Aerial Map of Cumulative Projects
Driftwood LNG Project
Driftwood LNG and Driftwood Pipeline LLC
Calcasieu Parish, Louisiana**

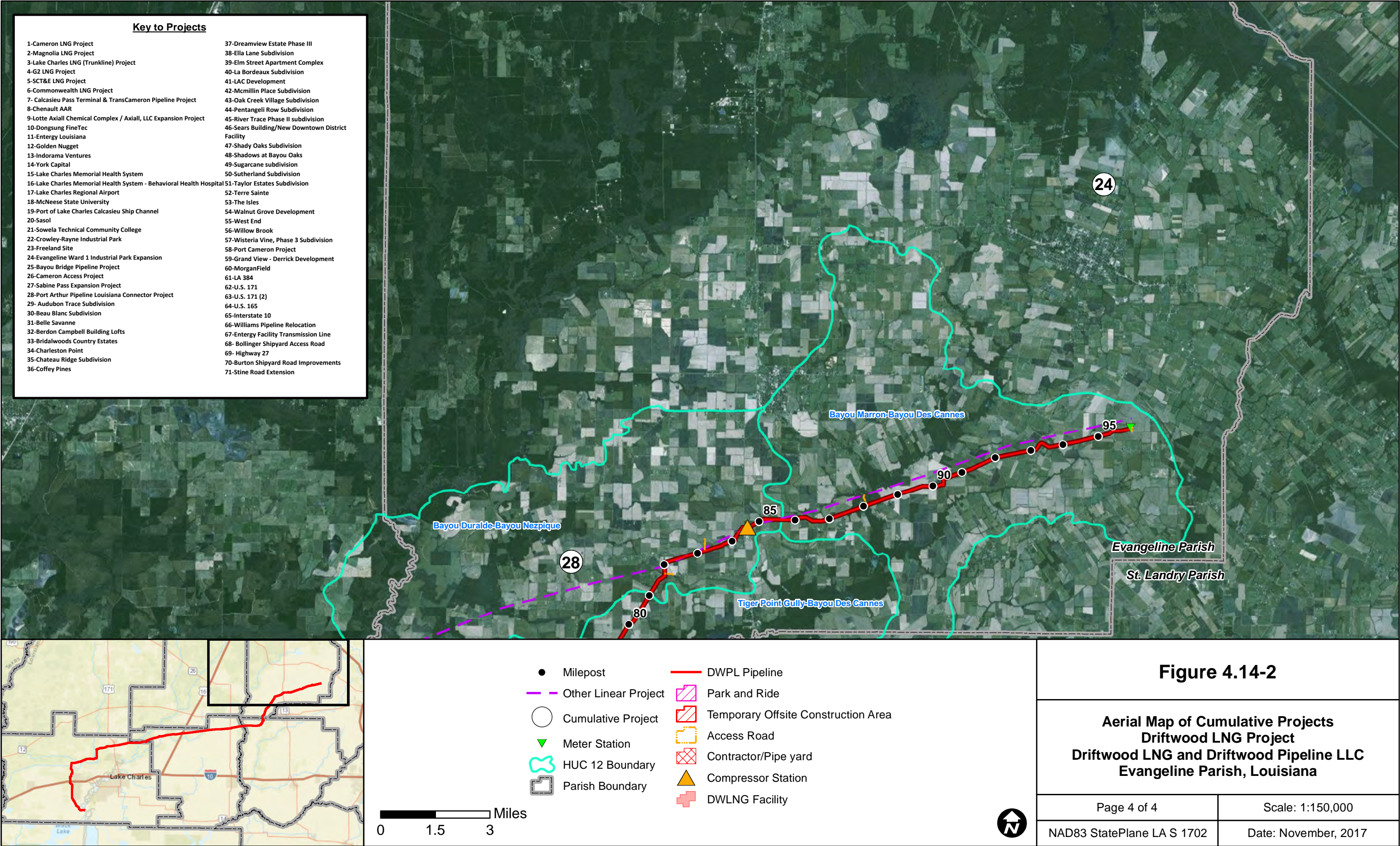
Page 1 of 4	Scale: 1:150,000
NAD83 StatePlane LA S 1702	Date: November, 2017





Key to Projects	
1-Cameron LNG Project	37-Dreamview Estate Phase III
2-Magnolia LNG Project	38-Ella Lane Subdivision
3-Lake Charles LNG (Trunkline) Project	39-Elm Street Apartment Complex
4-G2 LNG Project	40-La Bordeaux Subdivision
5-SCT&E LNG Project	41-LAC Development
6-Commonwealth LNG Project	42-Mcmillin Place Subdivision
7-Calcasieu Pass Terminal & TransCameron Pipeline Project	43-Oak Creek Village Subdivision
8-Chenault AAR	44-Pentangeli Row Subdivision
9-Lotte Axiall Chemical Complex / Axiall, LLC Expansion Project	45-River Trace Phase II subdivision
10-Dongsung FineTec	46-Sears Building/New Downtown District Facility
11-Entergy Louisiana	47-Shady Oaks Subdivision
12-Golden Nugget	48-Shadows at Bayou Oaks
13-Indorama Ventures	49-Sugarcane subdivision
14-York Capital	50-Sutherland Subdivision
15-Lake Charles Memorial Health System	51-Taylor Estates Subdivision
16-Lake Charles Memorial Health System - Behavioral Health Hospital	52-Terre Sainte
17-Lake Charles Regional Airport	53-The Isles
18-McNeese State University	54-Walnut Grove Development
19-Port of Lake Charles Calcasieu Ship Channel	55-West End
20-Sasol	56-Willow Brook
21-Sowela Technical Community College	57-Wisteria Vine, Phase 3 Subdivision
22-Crowley-Rayne Industrial Park	58-Port Cameron Project
23-Freeland Site	59-Grand View - Derrick Development
24-Evangeline Ward 1 Industrial Park Expansion	60-MorganField
25-Bayou Bridge Pipeline Project	61-LA 384
26-Cameron Access Project	62-U.S. 171
27-Sabine Pass Expansion Project	63-U.S. 171 (2)
28-Port Arthur Pipeline Louisiana Connector Project	64-U.S. 165
29-Audubon Trace Subdivision	65-Interstate 10
30-Beau Blanc Subdivision	66-Williams Pipeline Relocation
31-Belle Savanne	67-Entergy Facility Transmission Line
32-Berdon Campbell Building Lofts	68-Bollinger Shipyard Access Road
33-Bridalwoods Country Estates	69-Highway 27
34-Charleston Point	70-Burton Shipyard Road Improvements
35-Chateau Ridge Subdivision	71-Stine Road Extension
36-Coffey Pines	





APPENDIX E
RISK MANAGEMENT PLAN FOR THE BOLLINGER PARCEL



March 1, 2017

Percy V. Harris
Administrator, Remediation Division
Louisiana Department of Environmental Quality
Office of Environmental Assessment
P.O. Box 4314
Baton Rouge, LA 70821-4314

RE: Driftwood LNG Facility
FERC Docket PF16-6-000
Agency Interest No. 40194

Dear Mr. Harris:

On January 17, 2017 Driftwood LNG LLC (Driftwood) met with Mr. Bill Schramm and yourself at LDEQ offices to discuss recent site investigations at the Driftwood Facility and plans for avoidance of contaminated media during construction of the Driftwood LNG facility. During that meeting, it was suggested that Driftwood develop a risk management plan for LDEQ review. The intent of the Risk Management Plan is to communicate Driftwood's plans for avoidance and non-disturbance of areas with detected contamination.

Please find attached the Draft Risk Management Plan for your review. Please note this plan follows a Table of Contents previously presented to LDEQ.

Driftwood is requesting LDEQ offer any comments or feedback with respect to the Risk Management Plan once LDEQ has had an opportunity to review. I will be contacting you early the week of 06 March to arrange a time for a follow-up discussion that is suitable.

If you have any questions, please feel free to contact me at (713) 235-9611 or via email at rick.greiner@driftwoodlng.com.

Sincerely,

John F. (Rick) Greiner, CPG

Driftwood LNG Environmental Manager

Cc: Mark S. Wilson, Geologist 3, LDEQ/OEA/RD/Group2/ARO

Cathy Rourke, VP HSE

Rachel Candelet, VP Legal

RISK MANAGEMENT PLAN FOR THE DRIFTWOOD LNG LLC PROJECT CALCASIEU PARISH, LOUISIANA, AI # 40194

1.0 Project Overview

Driftwood LNG LLC (DWLNG) is proposing a liquefied natural gas (LNG) production and export facility (the Facility), including marine facilities to allow for the safe berthing and un-berthing of three LNG ships up to 216,000 cubic meters each, to be located on the west bank of the Calcasieu River between mile markers 22 and 23 near Carlyss, Calcasieu Parish, Louisiana. The Facility will include five liquefaction plants capable of producing up to 26 million tonnes per annum of LNG for global export. To provide natural gas feedstock to the Facility, Driftwood Pipeline LLC (DWLP) is proposing an associated approximately 96-mile interstate natural gas pipeline (the Pipeline). The Pipeline will include three compressor stations, as well as a 3.4-mile lateral pipeline (see Figure P1-0000-00001).

2.0 Purpose

The purpose of this Risk Management Plan is to describe the steps for managing avoidance and non-disturbance of known contamination during construction of the LNG facility. The plan identifies the location of known contamination and establishes a zone of separation between known contamination and planned construction activities.

3.0 Summary of Construction Activities and Schedule

This Risk Management Plan (RMP) will focus on construction activities on the northeastern portion of the Facility. The property will be leased from the Lake Charles Harbor and Terminal District. The areas of interest are the North Slip and northern shore of the North Slip. The following construction activities will be undertaken in the order listed:

- Avoidance of existing mooring dolphins and batter piles
- Demolition of existing breasting dolphins and vertical piles
- Removal of north shore revetment matting
- Excavation and dredging of North Slip and southern contiguous land for marine berths
- Replacement of revetment matting
- Installation of vertical piles for new pipe bridge and loading platform
- Installation of new breasting dolphin batter piles

4.0 Conceptual Site Model

A Conceptual Site Model (CSM) is a written and/or illustrative representation of the physical, chemical, and biological processes that control the transport, migration, and actual/potential impacts of contamination to human and/or ecological receptors. The following sections describe the sources of contamination, contaminant migration pathways and potential receptors.

4.1 Sources of Contamination

The Fredeman Pit Site and the Bollinger Calcasieu Site are identified sources of contamination that lie outside and north of the DWLNG Facility boundary. Tract 29 is a small area of residual contamination on the far eastern edge of the north shore of the North Slip (see Figure 1-4).

4.1.1 Fredeman Pit Site

The Fredeman Pit Site (FPS) has been investigated by the Louisiana Department of Environmental Quality (LDEQ). *The Fredeman Pit Site, Sulphur, LA Triad Approach Site Investigation Report by Eagle*



Driftwood LNG LLC and Driftwood Pipeline LLC
Docket No. CP17-__-000
Docket No. CP17-__-000

Appendix 7A-6
Risk Management Plan – Site Plan

Privileged and Confidential Information – DO NOT RELEASE
Refer to Volume II

Environmental Services, Inc. (December 2012) reports soil and groundwater contamination that exceeds RECAP standards. The report indicates:

- The Area of Investigation is approximately 2.9 acres.
- The FPS and surrounding facilities were used for cleaning cargo barges. Various owners operated the site dating back to 1965. (The site is not currently in operation.)
- Two surface impoundments, the East and West Pits, were the primary location for storage and disposal of wastes.
- By 1981 the two surface impoundments had been filled and covered.
- Several petroleum and chlorinated hydrocarbon compounds are present in soil and groundwater in concentrations that exceed RECAP standards.
- Most soil contamination exists below 18 feet below ground level (BGL) and in proximity to the East and West Pits (see Figure 5).
- Groundwater contamination exists in the 20-foot sand and the 38-foot shell hash zone. The Triad report noted dense non-aqueous phase liquid (DNAPL) in one of the eight 50-foot sand zone temporary monitoring points which was attributed to an improperly constructed monitoring well (see Figure 6).

4.1.2 Bollinger Calcasieu Site

The Bollinger Calcasieu Site (BCS) is described in the document *RECAP Assessment of the Former Bollinger Calcasieu Shipyard*, prepared by US Risk Management, LLC (October 2013). This document reports that the BCS facility is addressing soil and groundwater contamination that exceeds RECAP standards. (Note: The current status of these activities has not been confirmed.) The document reports the following:

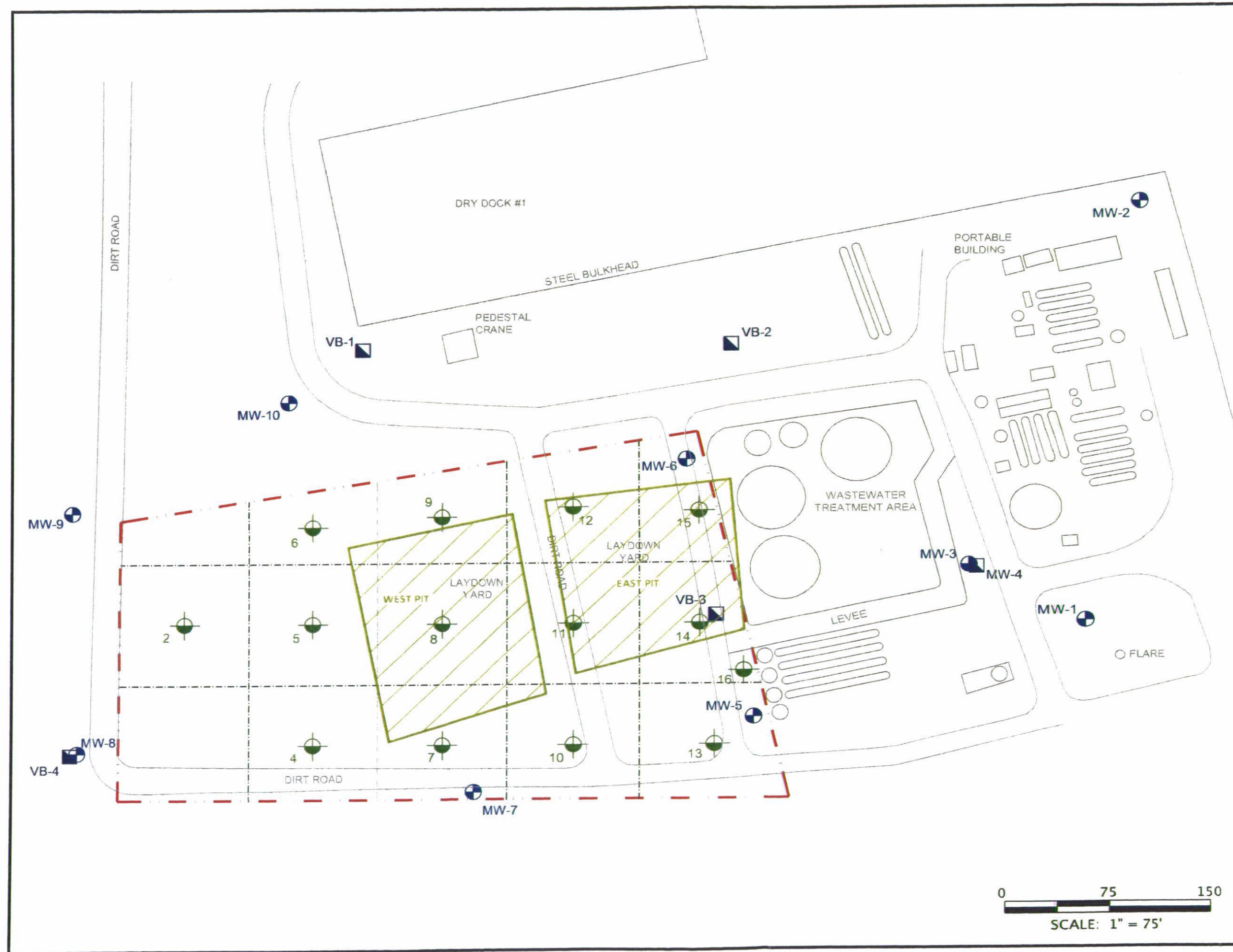
- The Area of Investigation, known as the Marine Cleaning Area, began operation as a full-service barge and marine vessel maintenance and repair facility in 1964 (see Figure 2). The site is not currently in operation.
- Benzo(a)pyrene, methylene chloride, tetrachloroethylene, and trichloroethene exceed soil RECAP standards and require a Corrective Action Plan.
 - The status of the Corrective Action Plan has not been confirmed.
- 1,2-dichloroethane, 1,1-dichloroethene, cis 1,2-dichloroethene, tetrachloroethylene, 1,1,2-trichloroethane, trichloroethene, vinyl chloride, and aliphatics C8-C10 exceed groundwater RECAP standards and require a Corrective Action Plan.
 - The status of the Corrective Action Plan has not been confirmed.

4.1.3 Tract 29 on the Lake Charles Harbor and Terminal District (LCHTD) property

Global Industries, Ltd, the property owner at the time, filed a Conveyance Notice with the Calcasieu Parish Clerk of Court in 2003 for an area of approximately 0.155 acres referred to as Tract 29. This area is located on the easternmost portion of the north shore of the North Slip (see Figure 3) was found to have surface contamination. The C-K Associates, Inc. March 1998 *Excavation Area Assessment Report* indicates that contaminated soil was excavated and disposed offsite. The Conveyance Notice was filed to record this area as a land use restricted risk-based closure. On July 31, 1998 LDEQ issued a closure letter for this site. The closure is protective of industrial exposures and land use will not change during the life of the DWLNG operations.

4.2 Contaminant Migration Pathways

The *RECAP Assessment of the Former Bollinger Calcasieu Shipyard*, prepared by US Risk Management, LLC, (October 2013) reports a single man-made vapor intrusion migration pathway on the BCS which consists of a mixed use building constructed on a concrete pad within the Marine Cleaning AOI. No other buildings,



Legend

- FREDEMAN PIT SITE BOUNDARY
- HIGH DENSITY GEOLOGIC / DSITMS SOIL BORING
- 20 FOOT SAND ZONE MONITORING WELL LOCATION
- 50 FOOT SAND ZONE MONITORING WELL LOCATION

FREDEMAN PIT SITE SULPHUR, LOUISIANA

TRIAD APPROACH SITE INVESTIGATION

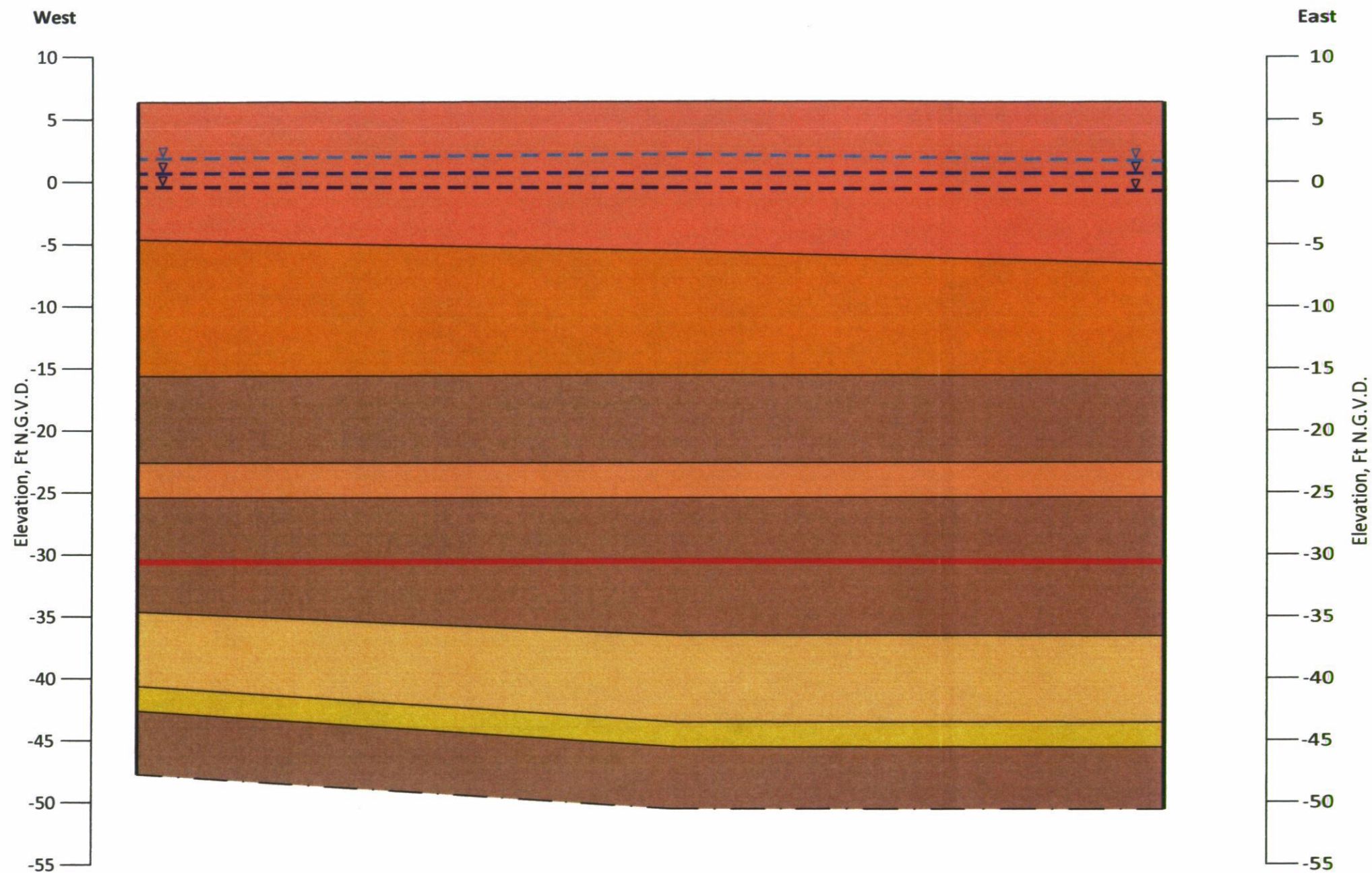
HIGH DENSITY GEOLOGIC / DSITMS SOIL BORING LOCATION MAP

CALCASIEU PARISH



Drawn:	jbh
Checked:	MBK
Approved:	MBK
Date:	12/8/12
Dwg. No.:	122-11-0056-C039

FIGURE 5



Cross-Section

Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 10'

Note:

Stratigraphy between borings are inferred. Actual conditions may vary.

Legend

- Shell Hash
- Bioturbation
- Clay
- Clay with Silts & Sands
- Interbedded Silty Clay & Silty Sands
- Silty Sands
- Sand

N.G.V.D. National Geodetic Vertical Datum

- ▽ Potentiometric Elevation of 20 Foot Sand Zone
- ▽ Potentiometric Elevation of 38 Foot Shell Hash Zone
- ▽ Potentiometric Elevation of 50 Foot Sand Zone

Note

N.G.V.D. elevations referenced to N.G.V.D. elevation of MW-6 as described in Section 5.6.2 of the Triad Approach Site Investigation Final Report.

FREDEMAN PIT SITE SULPHUR, LOUISIANA

TRIAD APPROACH SITE INVESTIGATION

GENERALIZED HYDROGEOLOGIC CROSS-SECTION

CALCASIEU PARISH



Drawn:	jbh
Checked:	MBK
Approved:	MBK
Date:	12/10/12
Dwg. No.:	122-11-0056-C041

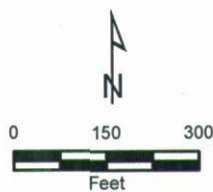
FIGURE 6



Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Legend

- July 10, 2012 Sampling Event
- July 25, 2013 Sampling Event
- ◆ Sediment Sample Location



PROJECT No.

#16-120029

DESIGNED BY

DRAWN BY

BL

CHECKED BY

L. STOLTZFUS

REVIEWED BY

L. STOLTZFUS

DATE

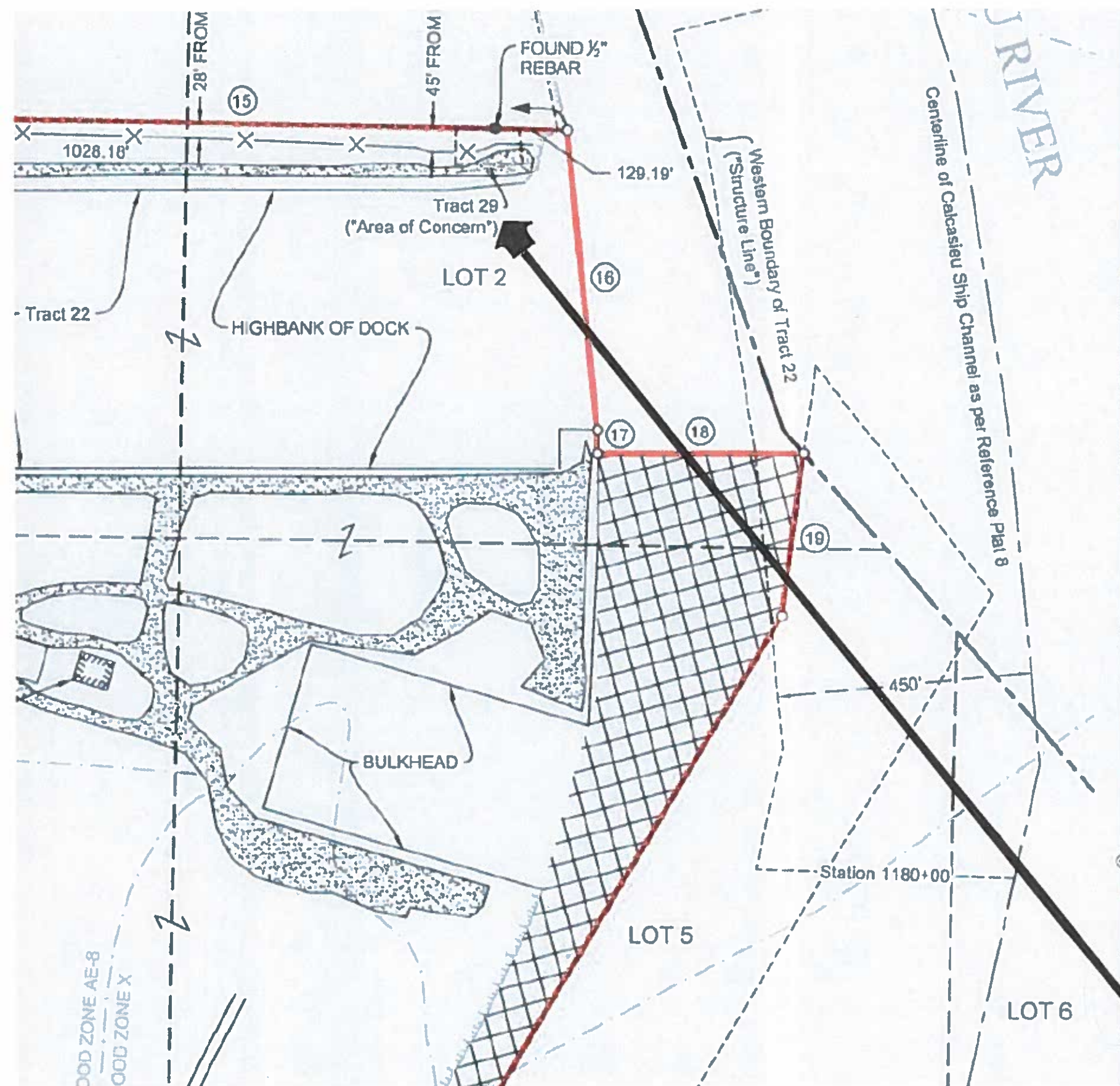
08/04/2013

FIGURE 2

REMEDATION AREA WITH SAMPLE LOCATIONS

RECAP ASSESSMENT
Southern Recycling
Bollinger Calcasieu Site
Sulphur, Louisiana





BII	13	Intentionally Deleted.
BII	14	Intentionally Deleted.
BII	15	Right of Way Deed from Global Industries, LTD, to Calcasieu Parish Police Jury, filed February 17, 1999
BII	16	Intentionally Deleted.
BII	17	Intentionally Deleted.
BII	18	Intentionally Deleted.
BII	19a	Intentionally Deleted.
BII	19b	Intentionally Deleted.
BII	20	Servitude from Mary P. Leveque to United States of America, dated August 27, 1963, filed August 28, 1963, bearing Clerk's File No. 929581, recorded in Conveyance Book 863, Page 288, as assigned to the Lake Charles Harbor & Terminal District by Quitclaim Deed filed August 17, 2015, bearing Clerk's File No. 3195913, in Conveyance Book 4056, Page 801, records of Calcasieu Parish, LA
BII	21	Legends of Plat, dated October 5, 1962, filed August 27, 1963
BII	22	Temporary Servitude from Landex, Inc., et al, to Pauley Agency, Inc., dated April 28, 1965, filed April 29, 1965
BII	23	Temporary Easement from Global Industries, LTD, to Lake Charles Harbor & Terminal District, dated February 16, 2000, filed February 17, 2000
BII	24	Intentionally Deleted.
BII	25	Intentionally Deleted.
BII	26	Intentionally Deleted.
BII	27	Right of Way and Line Easement Agreement from Owens-Illinois, Inc., to Mobil Pipeline Company, dated April 6, 1976, filed May 1, 1976
BII	28	Pipeline Servitude Agreement from Global Industries, LTD, to Cheniere Creole Trail Pipeline, L.P., dated June 18, 2007, filed June 27, 2007
BII	29	Conveyance Notification of Contaminated Soil by Global Industries, LTD, dated August 4, 2003, filed August 12, 2003
BII	30	Intentionally Deleted.

Figure 3

underground utilities or sewers, drainage channels, or water supply wells have been identified that contribute to contaminant migration.

The *Fredeman Pit Site, Sulphur, LA Triad Approach Site Investigation Report* by Eagle Environmental Services, Inc. (December 2012) reports silt-filled fractures in surficial clays as a natural migration pathway. The *RECAP Assessment of the Former Bollinger Calcasieu Shipyard* reports groundwater migration and discharge to a surface water body as additional natural migration pathways.

Silt-filled fractures in surficial clays may have contributed to the migration of contamination from the 20-foot sand zone to the 38-foot shell hash zone but the thickness and structure of the clays below the 38-foot shell hash zone seem to have protected the 50-foot sand zone from contaminant migration in the overall area. Sediment and soil were sampled in the North Slip on the Driftwood LNG Project site to a depth of 50 feet BGL and no constituents of concern (COCs) were detected – *North Barge Slip Soil Sampling* by Geosyntec (December 2016). Thus, there is no evidence of discharge of COCs to the North Slip.

5.0 Permits, Property Access and Health and Safety

5.1 Permits

Excavation and dredging of soils and sediment will be in accordance with an US Army Corps of Engineers 404 Clean Water Act (CWA) permit. Alteration of existing U.S. Army Corps of Engineers-structural limits will be in accordance with a US Army Corps of Engineers 408 permit. Air emissions during construction and operation will comply with LDEQ permit conditions. Point source discharge of pollutants during construction and operation will comply with a LPDES permit. Construction and operation will also comply with a Federal Energy Regulatory Commission (FERC) permit.

5.2 Property Access and Health and Safety

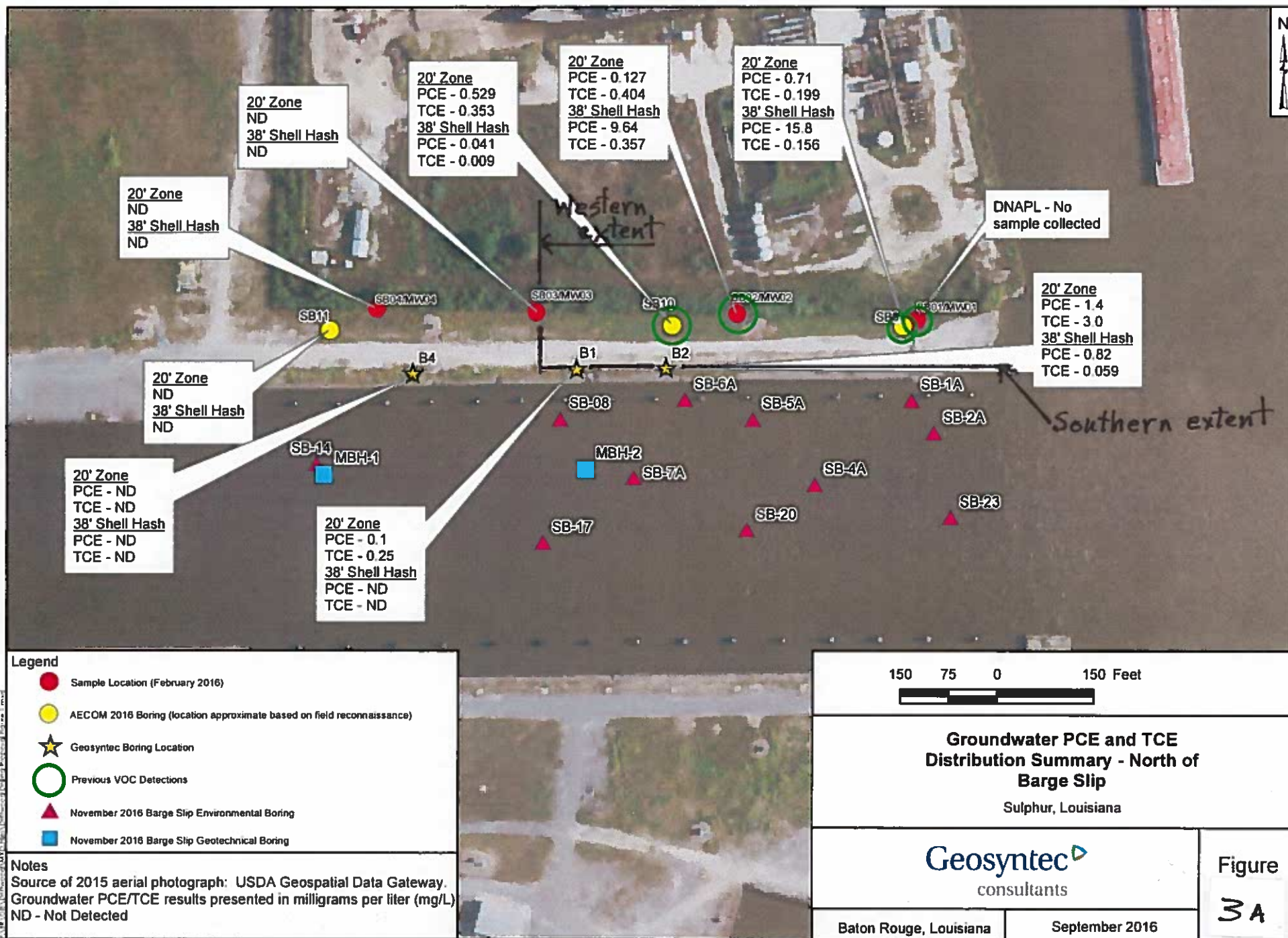
The Fredeman Pit Site, the Bollinger Calcasieu Site, and Tract 29 are each zoned for industrial use, fenced and access restricted. These restrictions are the primary layer of protection for the health and safety of the public. All construction personnel will receive training to ensure their understanding that access is restricted to approved work areas.

The DWLNG construction site will be confined to within the Facility property. It will not encroach on or disturb either the FPS or the BCS property. The restricted access and training will prevent DWLNG construction activity from directly impacting these areas of known contamination and the health and safety of construction workers at the site or the general public.

6.0 Performance Criteria (Zone of Separation Description)

Construction activities will avoid and not disturb known contamination on the adjacent FPS and BCS property. This has been the objective throughout the stages of facility design. Also, disturbance of known contamination at the FPS and BCS will be avoided through control of access to these sites afforded by the existing fence between the three properties.

The minimum distance between known contamination and planned construction activity is 74 feet. Furthermore, the separation distance between the closest planned construction activity (the Loading Platform piles) to the southern property boundary of the FPS and BCS property, is a minimum of 114 feet. To estimate the southernmost extent of contaminated media in the North Slip area at both the 20-foot sand zone and the 38-foot shell hash zone intervals, an east-west line connecting Geosyntec temporary monitoring wells B1 and B2 was established, south of which all soil and groundwater samples comply with



RECAP standards. This line is used to calculate the minimum distance between known contamination and planned construction activities south of this line (see Figure 3A).

To estimate the westernmost extent of contaminated media in the North Slip area, a north-south line connecting the Arabie Phase II soil boring SB03 and Geosyntec Phase II soil boring SB-08 was established, west of which all soil and groundwater samples comply with RECAP standards (see Figure 3A).

6.1 Limits of Contaminated Media in the North Slip Area

Site investigations conducted by DWLNG in the North Slip Area identified soil RECAP exceedances in the following sampling intervals: 18-20, 20-27, and 37-39 feet BGL. Soils from ground surface to 18 feet BGL did not exceed RECAP standards. Groundwater exceedances of RECAP standards occurred in the 20-foot sand and 38-foot shell hash zones. The locations of these exceedances have been avoided during design and engineering.

6.2 Description of Construction Activities in the North Slip Area

Construction activities in the North Slip area have been designed to avoid disturbance of known contaminated media. These construction activities are listed in order of construction sequence:

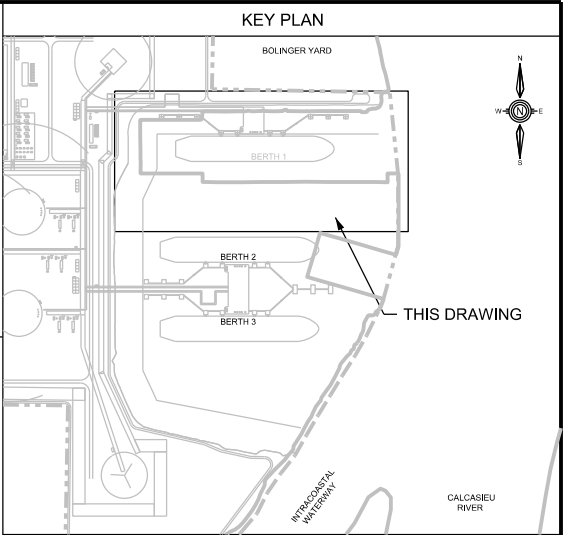
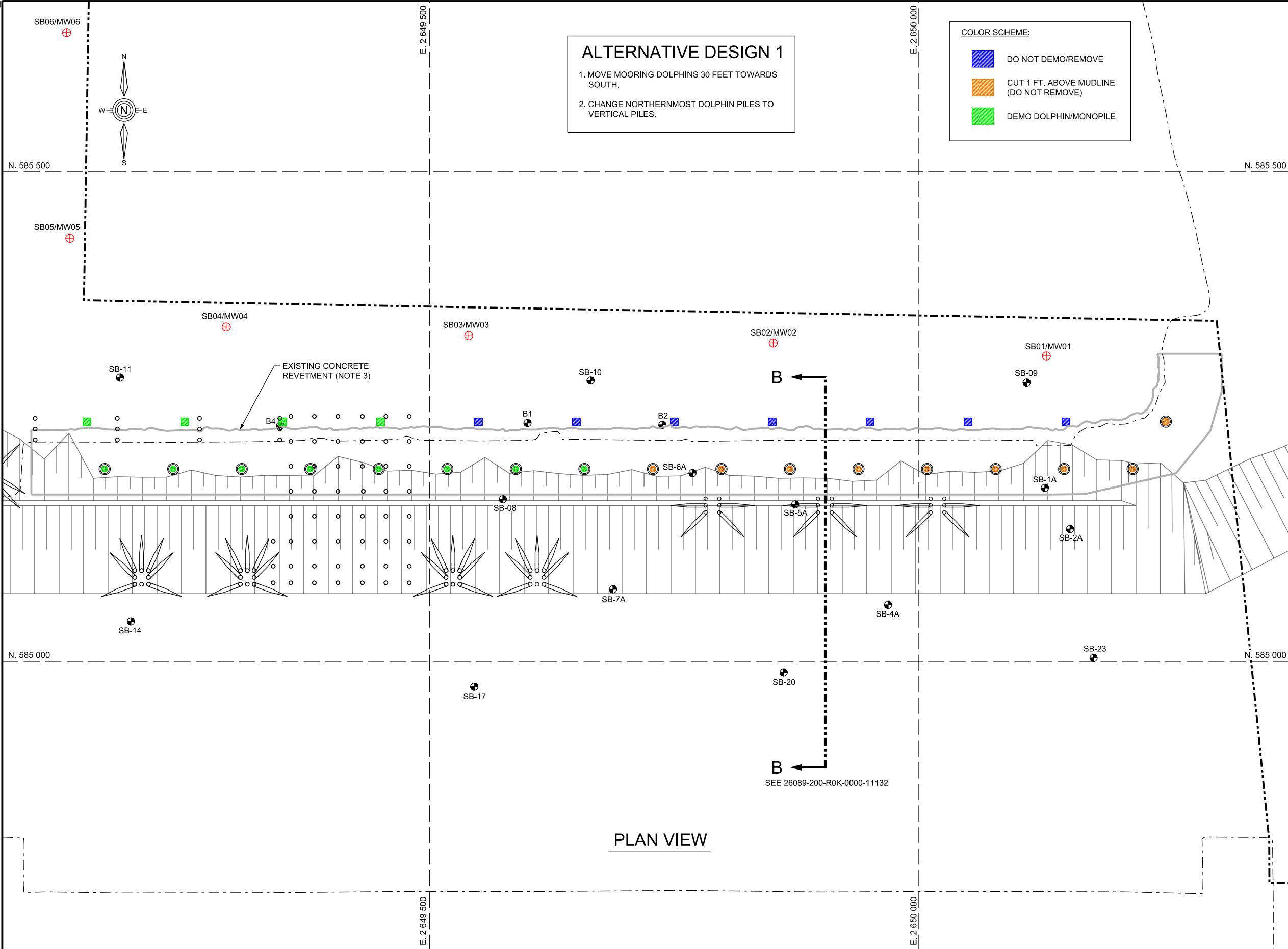
- Demolition – leave on-shore mooring dolphins and batter piles in place, cut off existing breasting dolphin monopiles below the mud line, and remove concrete revetment mat
- Excavation and Dredging of Sediment and Soil
- Shore Protection - Revetment and/or Riprap and Geotextile Installation
- Pipe Bridge and Loading Platform Vertical Pile Installation
- Mooring Dolphins Batter Piles Installation

6.2.1 Demolition

Existing on-shore mooring dolphins are supported by 12-inch diameter steel batter piles and will be clearly marked to ensure identification. Batter piles are a construction technique where piles are driven into the subsurface in a fan-shaped multi-pod configuration. They extend from above the surface to EL. -62 feet NAVD88 and are filled with concrete in the top 9 feet. The mooring dolphins are spaced along the shore line of the North Slip and will be left in place and not disturbed (see Figure 26089-200-R0K-0000-11131) below the mud line. The seven mooring dolphins (shaded blue on Figure 26089-200-R0K-0000-11131) on the easternmost end of the North Slip are potentially within soil and groundwater that exceed RECAP standards (east of the Arabie soil boring SB-03 and Geosyntec soil boring SB-08), a line that denotes the westernmost extent of contaminated media. These dolphins will be clearly marked and left in place throughout construction to mitigate the risk of disturbing known contaminated media.

Existing in-slip breasting dolphins (shaded orange on Figure 26089-200-R0K-0000-11131) are supported by 48-inch or 60-inch diameter steel monopiles that extend to EL. -85 feet NAVD88 and are filled with concrete from the top down to zero (0) feet NAVD88. The piles will be cut off below the mud line, and to prevent creation of a conduit for possible downward migration of contaminants, the piles will be sealed using a bentonite grout. The piles are approximately 45 feet south of the east-west contamination line demarcated by Geosyntec's temporary monitoring wells B1 and B2. RECAP compliant SB-6A lies between the two westernmost breasting dolphins and RECAP compliant SB-1A lies within 20 feet of the easternmost breasting dolphins. Demolition activities involving in-slip breasting dolphins will not disturb contaminated media.

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- NOTE:
1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN FEET AND INCHES.
 2. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US SURVEY FEET.
 3. EXISTING CONCRETE REVETMENT BASED FROM LANIER DWG. NO. C200-MA-002-D.

- LEGEND:
- PROPERTY BOUNDARY LINE
 - - - GRID LINE
 - - - EXISTING BULKHEAD/ShORELINE
 - [Hatched Area] DREDGING FOOTPRINT (NOTE 3)
 - ⊕ SOIL BORING/MONITORING WELL (ARABIE FEBRUARY 2016)
 - ⊙ ENVIRONMENTAL BORE HOLES
 - EXISTING MONOPILES
 - EXISTING MOORING DOLPHIN
 - PLANNED VERTICAL PILE
 - ▤ PLANNED BATTER PILE
 - PILE TIP

NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM	NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM	DRIFTWOOD LNG		SCALE:	
00A	02-22-2017	ISSUED FOR REVIEW	TGP	YY	DH	TP	JB									MARINE FACILITIES BERTH 1 - EAST MOORING DOLPHIN ALTERNATIVE DESIGN 1 - PLAN		CLIENT DRAWING NO.	REV.
																SULPHUR, LOUISIANA		BECHTEL DRAWING NO.	REV.
																		26089-200-R0K-0000-11131	00A



The existing revetment mat consists of a net of concrete blocks connected by steel cable that will be removed just prior to the excavation and dredging of sediments and soils to construct the marine berths. Precautions will be taken to not disturb the surface water/soil interface. At the depth of the 20-foot sand zone and 38-foot shell hash zone, the revetment mat is separated from the north-south contaminated media demarcation line by a horizontal distance of 50 feet (see Figure 26089-200-R0K-0000-11132).

6.2.2 Excavation and Dredging of Sediment and Soil

Excavation of soils for the Marine facility will begin south of the North Slip in Area 4 and will stop leaving an interior levee between the southern berths and the North Slip (see Figure 26089-200-R0-0000-10202). Dredging of North Slip sediment and soil will then begin by breaching the berm and dredging soil and sediment in both Area 3 and 4. Soil and sediment adjacent to the north shore of the North Slip will be removed by dredging along an east-west line at the toe of the existing revetment mat. The toe of the existing revetment mat is located a horizontal distance of 50 feet south of clean line connecting temporary monitoring wells B1 and B2 which mark the southernmost extent of contaminated media. Maintaining this 50-foot separation distance will prevent disturbance of contaminated media.

6.2.3 Shore Protection - Revetment and/or Riprap and Geotextile Installation

Upon completion of excavation and dredging of North Slip soil and sediment, new revetment materials will be installed on the north shore of the North Slip to replace the existing revetment that will be removed. The revetment material will be of the same construction as the existing revetment or by rock rip rap (or both). Removal and replacement of the revetment mat will avoid contact with and not disturb contaminated media.

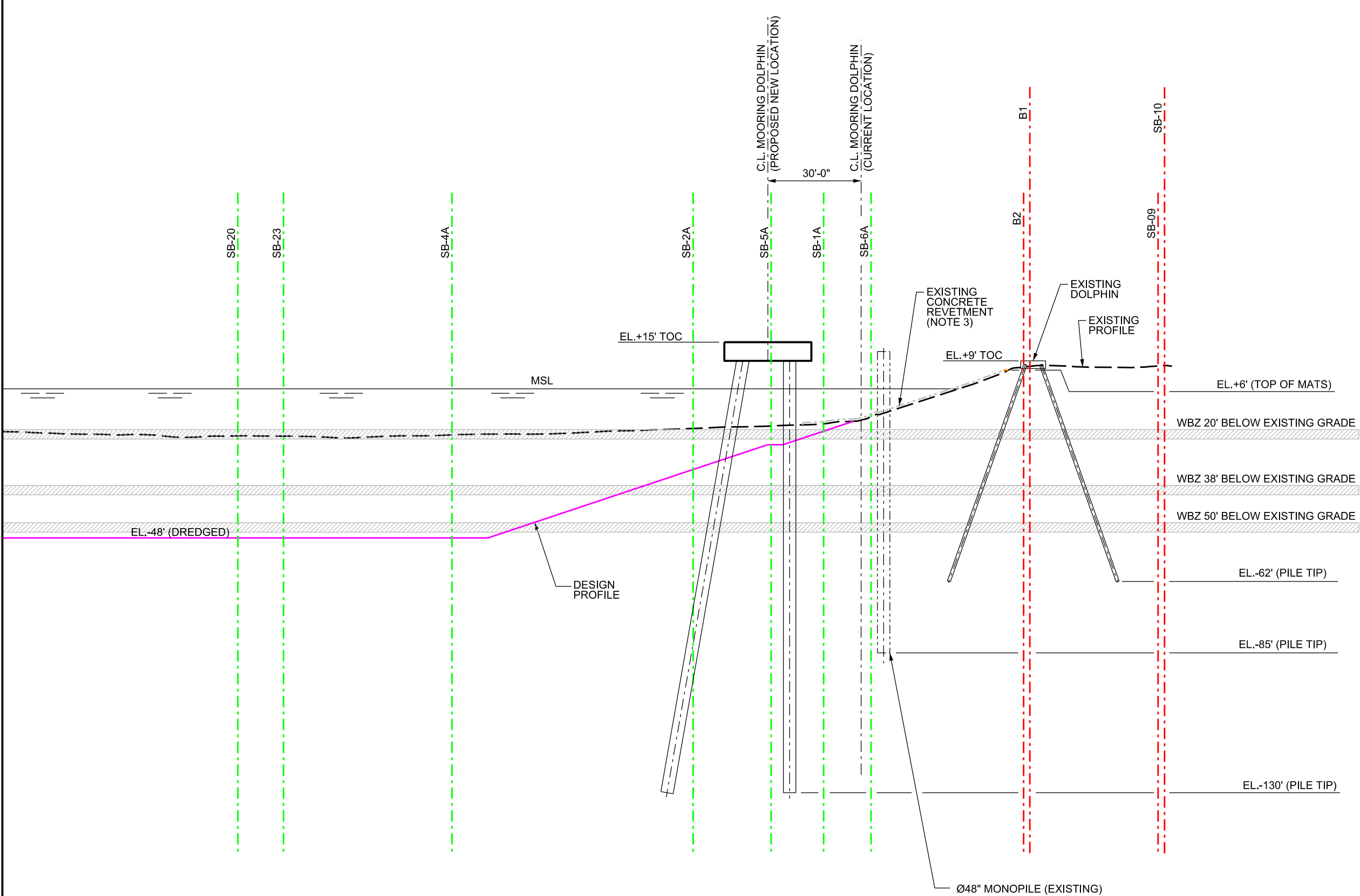
6.2.4 Pipe Bridge and Loading Platform Vertical Pile Installation

The Pipe Bridge will be a linear feature on the north shore of the North Slip and will extend from the west end of the slip eastward to approximately the location of soil boring B4 (see Figure 26089-200-R0K-0000-11131). Soil boring B4 is compliant with RECAP standards and is approximately 190 feet west of the north-south clean line demarcated by Arabie SB-03 and Geosyntec SB-08.

The eastern end of the Pipe Bridge and vertical piers will abut the northwest corner of the Loading Platform which will be a rectangular structure that will extend southward into the North Slip and eastward along the northern shore of the North Slip B4 (see Figure 26089-200-R0K-0000-11131). The easternmost vertical piers for the Loading Platform will be located approximately 62 feet west of the north-south clean line demarcated by Arabie SB-03 and Geosyntec SB-08, both sampling locations that did not exceed RECAP standards. Therefore, the Pipe Bridge and the Loading Platform will be separated from known contaminated media by at least the 62 feet that separates the loading platform from known contaminated media. Based on this 62-foot distance, contaminated media will be avoided and not disturbed.

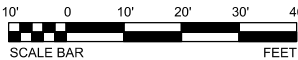
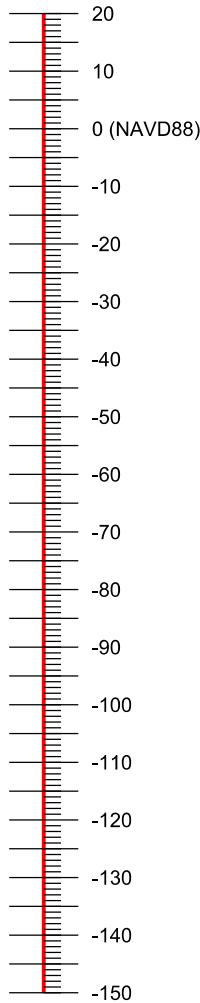
The depth of the vertical piles for the Pipe Bridge and Loading Platform will be EL. -110 and EL. -120 feet NAVD88 respectively. Site-specific data from the Fugro Geotechnical Phase I and Phase II Reports indicate that the elevation of the top of the Chicot aquifer ranges from EL. -232 to -255 (see Plates 2, 3e, 2b and 3d). Phase I geotechnical soil borings BHPS-4, BH-8 and BHPS-5 encountered Stratum V, interpreted to be the upper sands of the Chicot aquifer, at elevations of EL. -235, -245 and -255, respectively. Phase II geotechnical soil boring BHPS-6 encountered Stratum V at elevation EL. -232. Fugro described Stratum V as a very dense silt, silty sand and clayey sand with blow counts greater than 50 blows per foot (very dense) as measured by standard penetration testing.

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2. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US SURVEY FEET.
3. EXISTING CONCRETE REVETMENT BASED FROM LANIER DWG. NO. C200-MA-002-D.
4. DOLPHIN INNER PILES NOT SHOWN FOR CLARITY.

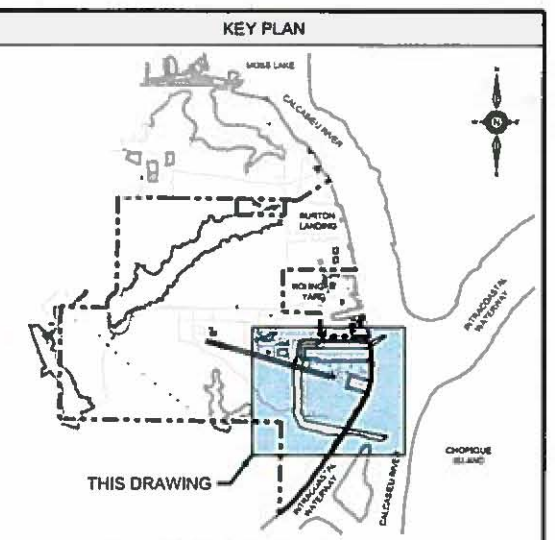
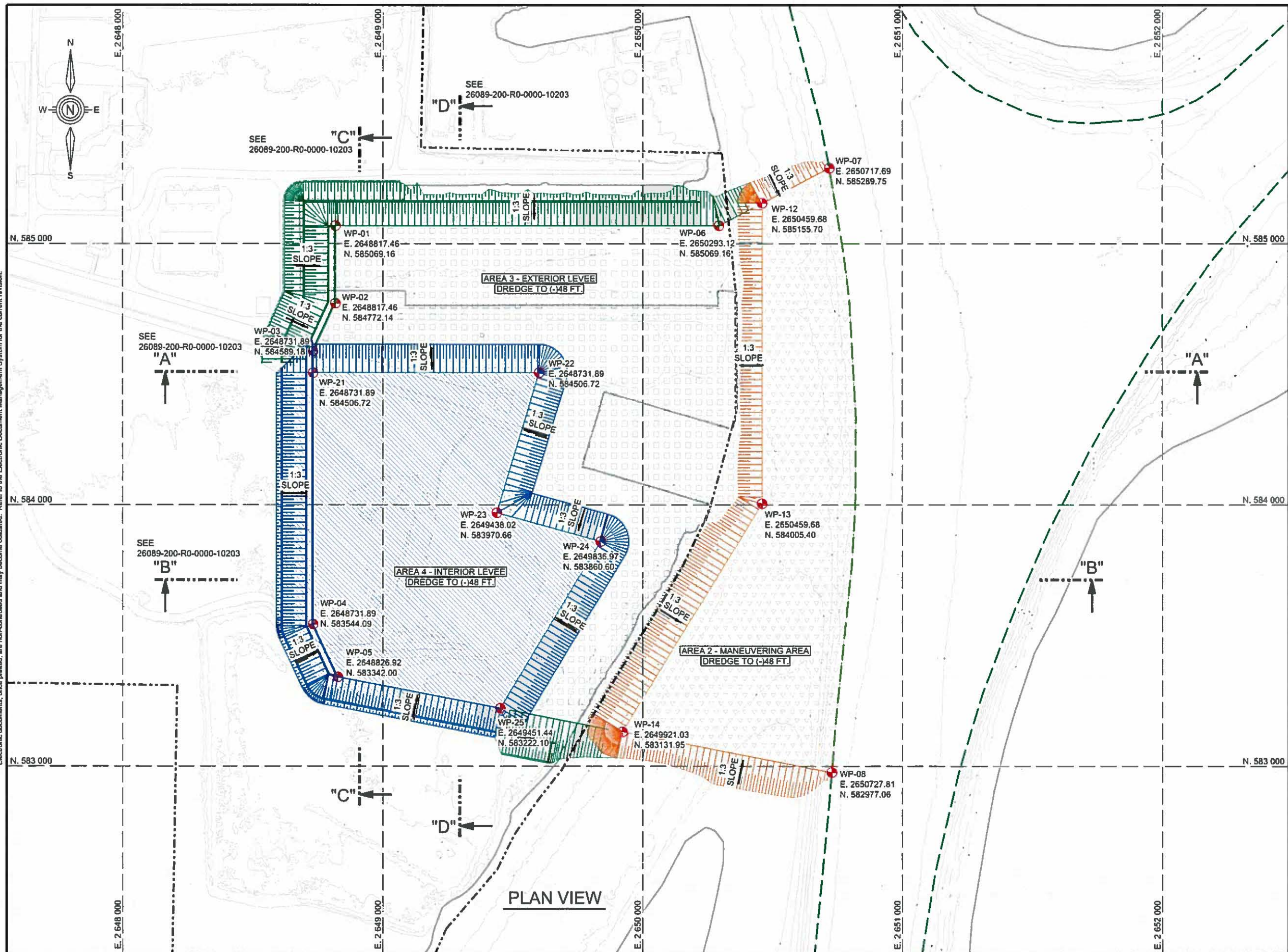


SECTION B-B

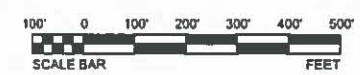
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																SULPHUR, LOUISIANA		BECHTEL DRAWING NO.	REV.
																		26089-200-R0K-0000-11132	00A



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- NOTE:**
1. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN FEET.
 2. ELEVATIONS ARE IN FEET RELATIVE TO NAVD88.
 3. NAVD88 = 1.8' MEAN LOW GULF (MLG).
 4. COORDINATES ARE IN NAD83 LOUISIANA STATE PLANE, SOUTHERN ZONE, US SURVEY FEET.
 5. EXISTING CHANNEL BASED FROM NOAA CHART NO. 11339.
 6. DREDGING DEPTHS INCLUDES OVERDREDGING.
- LEGEND:**
- AREA 2 - MANEUVERING AREA
DREDGE TO (-)48 FT. (NOTE 6)
(EST. QTY = 1.2M CU YD.)
 - AREA 3 - EXTERIOR LEVEE
DREDGE TO (-)48 FT. (NOTE 6)
(EST. QTY = 3.0M CU YD.)
 - AREA 4 - INTERIOR LEVEE
DREDGE TO (-)48 FT. (NOTE 6)
(EST. QTY = 1.7M CU YD.)
 - WORKING POINT (WP)
 - PROPERTY BOUNDARY
 - EXISTING SHORELINE/BULKHEAD
 - VESSEL TURNING CIRCLE
 - EXISTING CHANNEL



NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM	NO.	DATE	REVISION	BY	CHECK	APPR	APE	PEM
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00B	11-03-2016	ISSUED FOR FEED (ADDED OVERDREDGING, UPDATED DREDGING QUANTITY & WORKING POINTS)	TP	CT	DH	TP	JB								
00C	02-16-2017	ISSUED FOR FEED (UPDATED DREDGING FOOTPRINT, SLOPE, QUANTITY & WORKING POINTS)	TP	CT	DH	TP	JB								



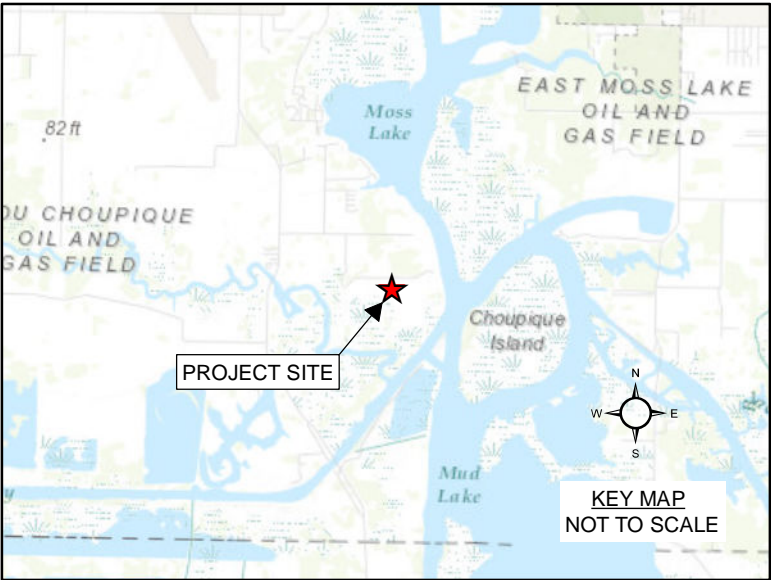
DRIFTWOOD LNG
MARINE FACILITIES - LOADING BERTH
EXCAVATION AND DREDGING BREAKDOWN
SHEET 2 OF 3
SULPHUR, LOUISIANA

SCALE:

CLIENT DRAWING NO.	REV.
BECHTEL DRAWING NO.	REV.
26089-200-R0-0000-10202	00C



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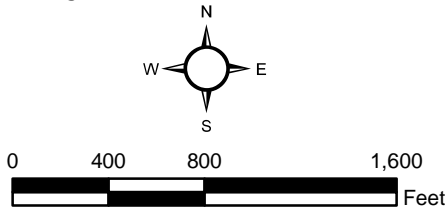


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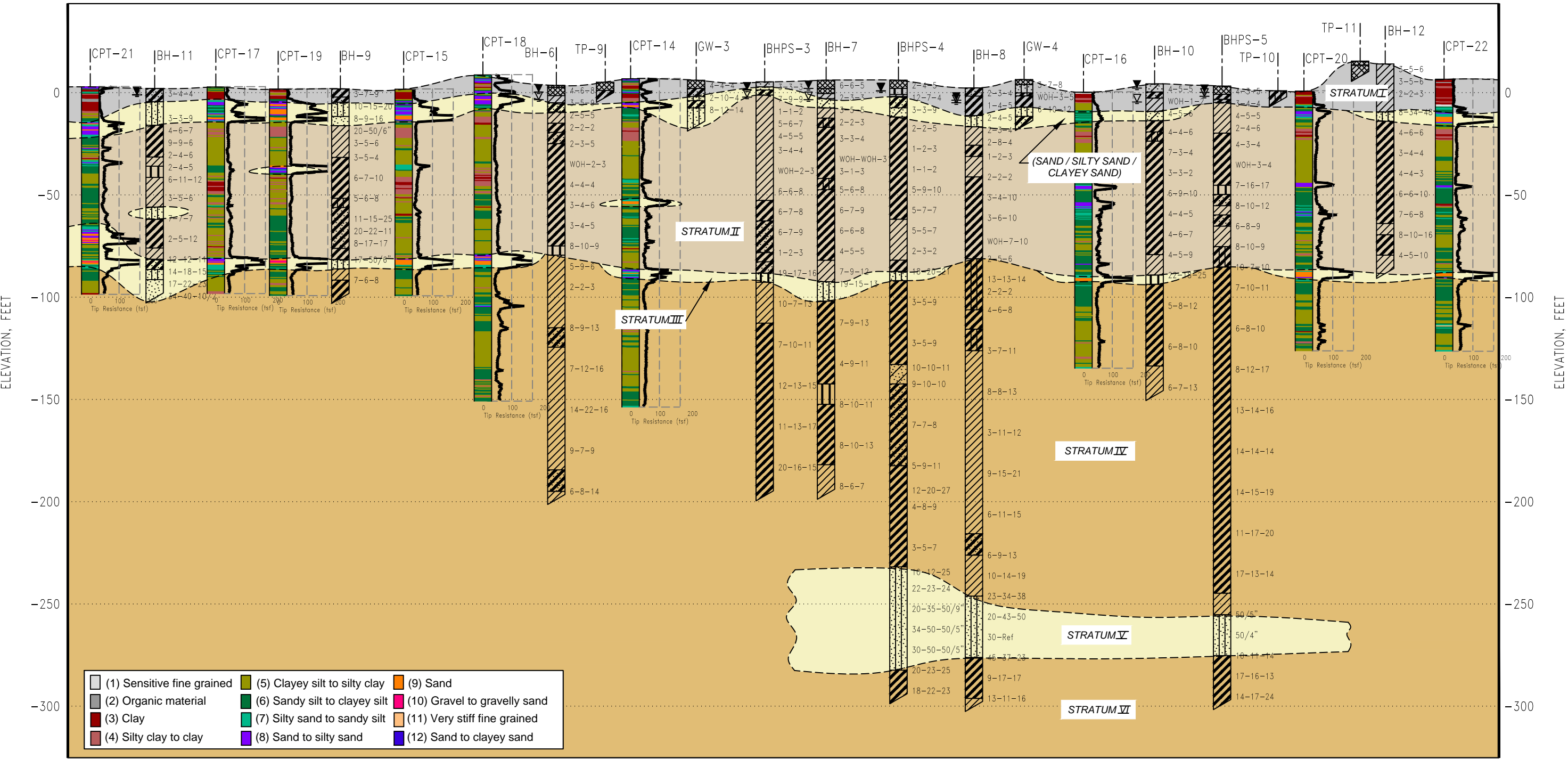
- GEOTECHNICAL BORING
- GEOTECHNICAL BORING W/ PS LOGGING
- ▲ CONE PENETRATION TEST
- TEST PIT
- ⊠ GROUNDWATER WELL
- ▲ DREDGE TEST TRENCH
- ↔ CROSS-SECTION

NOTES:

1. EXPLORATION LOCATIONS AREA APPROXIMATE.
2. SURVEYED ASBUILT COORDINATES PROVIDED BY FUGRO JOHN CHANCE.

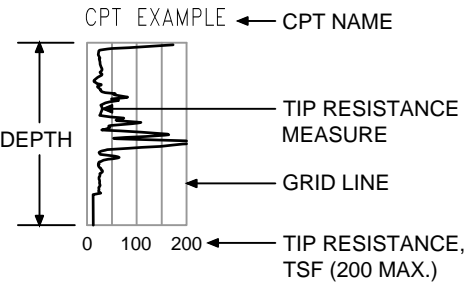


PLAN OF EXPLORATIONS
GEOTECHNICAL DATA REPORT
DRIFTWOOD LNG PROJECT - PHASE I
SULPHUR, LOUISIANA



LEGEND

SAND	SILT	LEAN CLAY	SILTY CLAY
SILTY SAND	SANDY SILT	FAT CLAY	
CLAYEY SAND	CLAYEY SILT	SANDY CLAY	



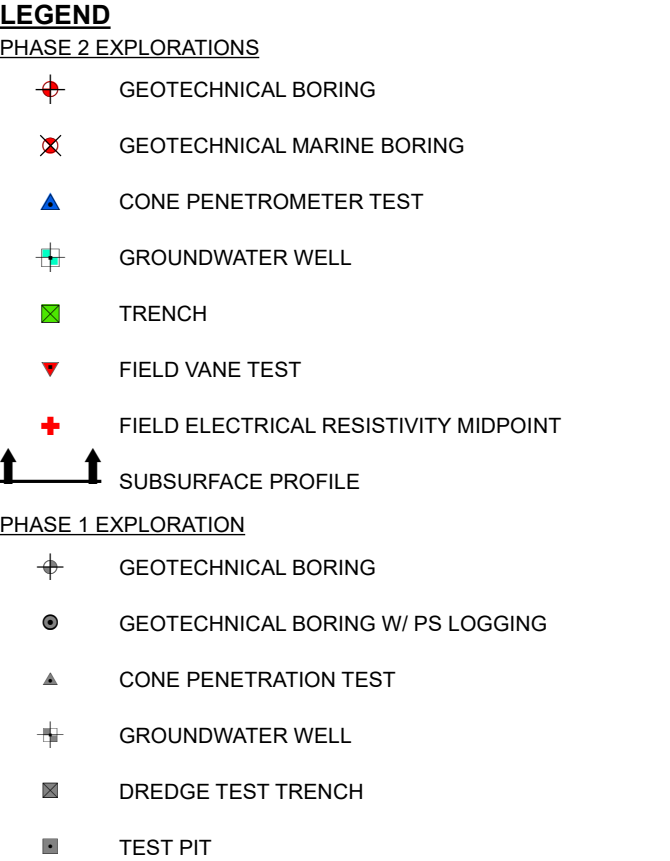
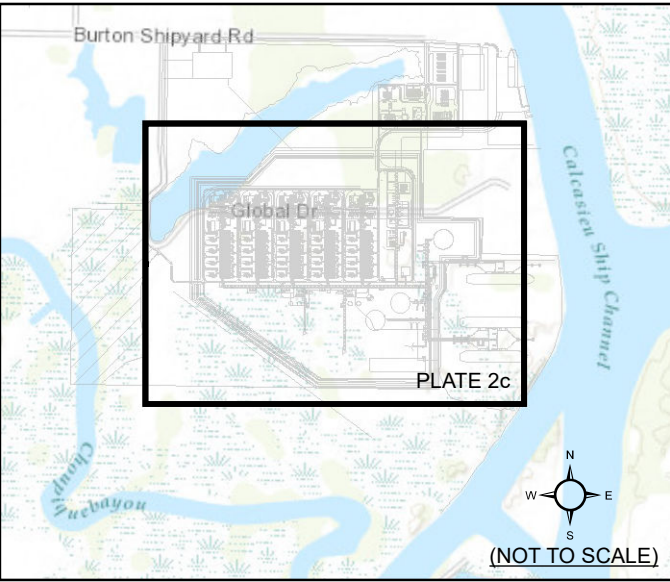
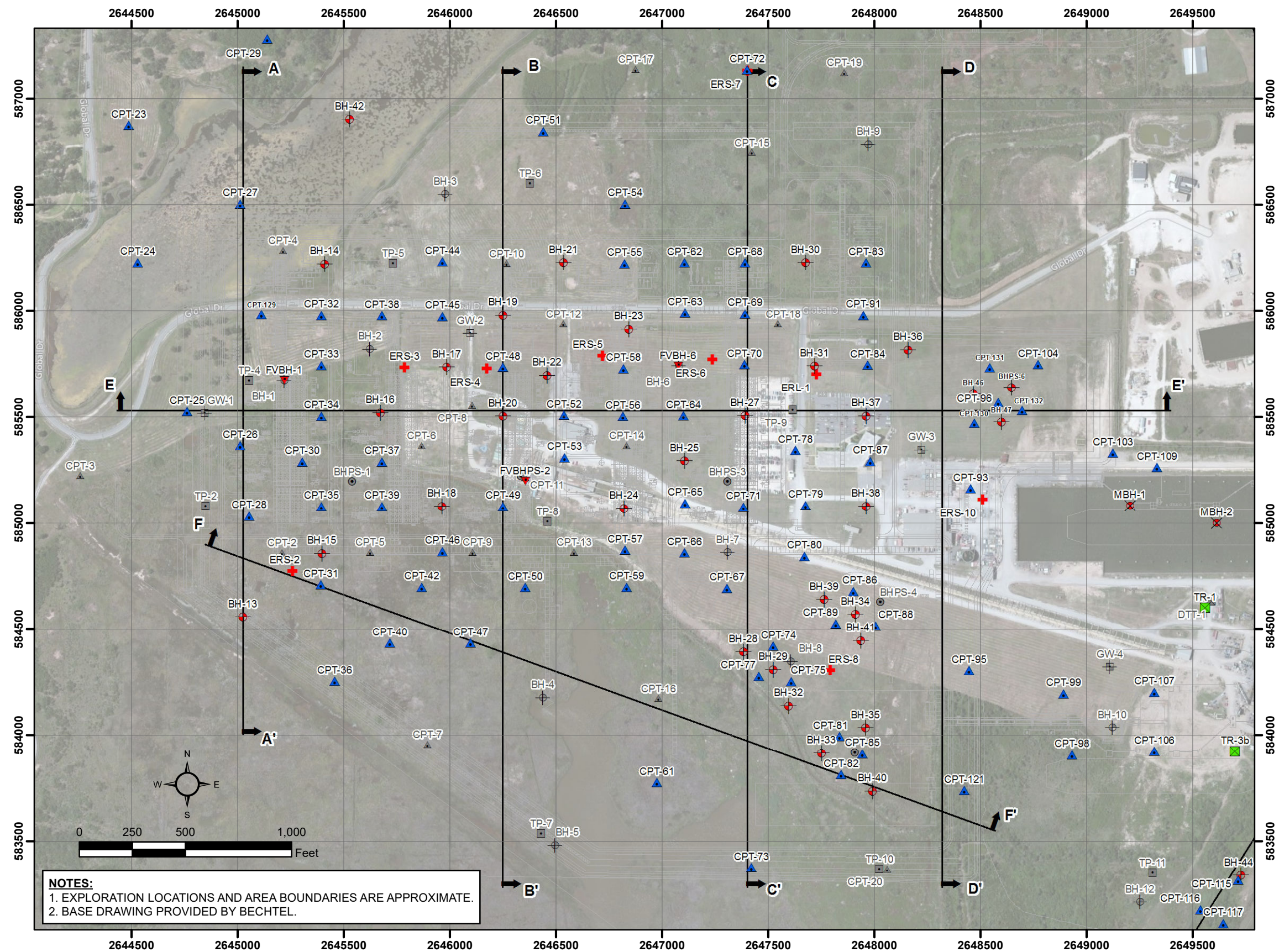
NOTE:
1. DATA CONCERNING SUBSURFACE CONDITIONS HAVE BEEN OBTAINED AT BORING LOCATIONS ONLY. ACTUAL CONDITIONS AT LOCATIONS BETWEEN BORINGS MAY VARY FROM THE GENERALIZED SOIL PROFILE SHOWN HERE.

GENERALIZED SUBSURFACE PROFILE SECTION E-E'
GEOTECHNICAL DATA REPORT
DRIFTWOOD LNG PROJECT - PHASE I
SULPHUR, LOUISIANA





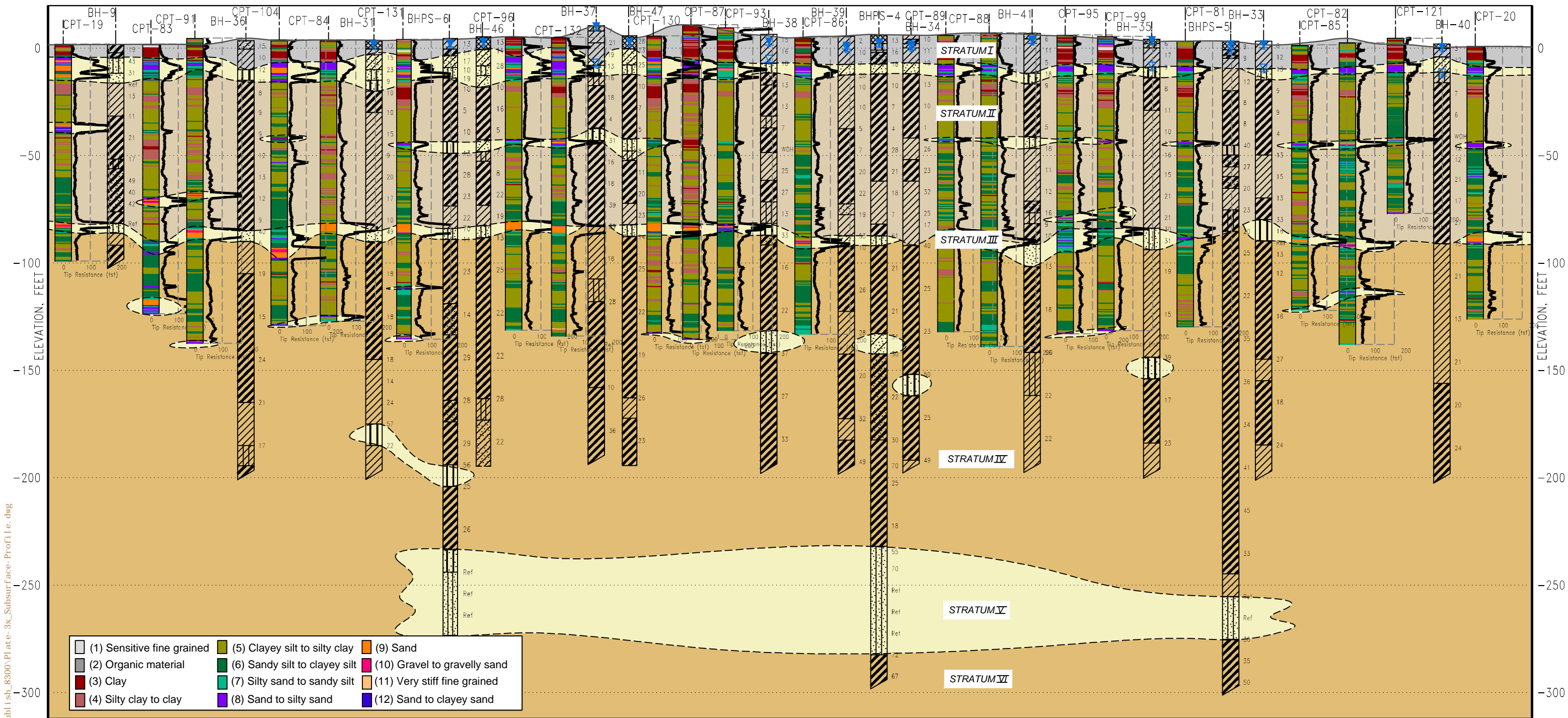
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PLAN OF EXPLORATIONS - DETAIL VIEW
DRIFTWOOD LNG PROJECT - PHASE II
BECHTEL OIL, GAS AND CHEMICALS, INC.
SULPHUR, LOUISIANA

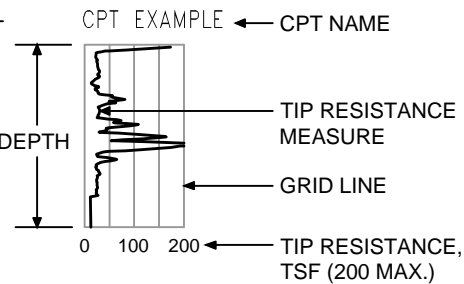


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REVISION: 0



LEGEND

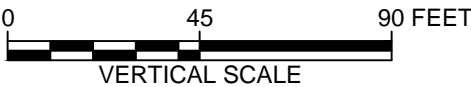
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	SILTY SAND		SANDY SILT		FAT CLAY		SILTY CLAY
	CLAYEY SAND		CLAYEY SILT		SANDY FAT CLAY (CH)		



NOTES:

1. DATA CONCERNING SUBSURFACE CONDITIONS HAVE BEEN OBTAINED AT BORING LOCATIONS ONLY. ACTUAL CONDITIONS AT LOCATIONS BETWEEN BORINGS MAY VARY FROM THE GENERALIZED SOIL PROFILE SHOWN HERE.
2. BLOW COUNTS CORRESPOND TO N_{60} VALUES CALCULATED BASED ON SITE-SPECIFIC SPT CALIBRATION RESULTS.

GENERALIZED SUBSURFACE PROFILE SECTION D-D'
DRIFTWOOD LNG PROJECT - PHASE II
BECHTEL OIL, GAS AND CHEMICALS, INC.
SULPHUR, LOUISIANA



The thickness of the overlying confining Stratum IV ranges from approximately 130 to 169 feet where the Chicot aquifer was encountered. Stratum IV is described as natural cohesive soils. Measured moisture content within the cohesive soils ranged between 16 and 77 percent. Results from liquid limit tests ranged from 26 to 119, with plasticity indices ranging from 13 to 34. From this data, there is at least 112 feet of cohesive confining clay aquitard between the total depth of the deeper Loading Platform vertical piles and the top of the Chicot aquifer. There is at least 122 feet of cohesive confining clay aquitard between the final depth of the shallower Pipe Bridge piles and the top of the Chicot aquifer. Therefore, the vertical piles will not impact the Chicot aquifer.

6.2.5 Mooring Dolphins Batter Piles Installation

Mooring dolphins will be constructed on batter piles in the North Slip along the northern shore line. The three easternmost mooring dolphins and batter piles will be installed 74 feet south of known contamination on the eastern end of the north shore of the North Slip between Geosyntec soil boring B2 and AECOM soil boring SB9. Soil and groundwater samples from these borings exceeded RECAP standards. The horizontal distance from these batter piles to contamination in the 20-foot sand and 38-foot shell hash zones is 74 feet (see Figure 26089-200-R0K-0000-11132).

The batter piles will extend in depth to -130 feet NAVD88. From the previous discussion of the depth to the top of the Chicot aquifer, there is at least 102 feet of cohesive confining clay aquitard between the final depth of the mooring dolphin batter piles and the top of the Chicot aquifer.

The westernmost of the three batter piles is 38 feet southeast of soil boring SB-6A which did not exceed RECAP standards. The central-most of the three batter piles is 31 feet east of soil boring SB-5A which also did not exceed RECAP standards. The third and most easterly batter pile lies approximately 85 feet south of the east-west clean line demarcated by soil borings B1 and B2. At the levels of the 20-foot sand and the 38-foot shell hash zones, the horizontal distance from the three batter piles to the shore line where temporary monitoring wells B-1 and B-2 mark the southernmost exceedances of RECAP standards, is approximately 74 feet (see Figures 26089-200-R0K-0000-11131 and 26089-200-R0K-0000-11132).

6.3 Potential for Contaminant Migration

The Triad Report for the Fredeman Pit Site is the source of geological and hydrogeological data used to describe and evaluate the potential for contaminant migration from the Fredeman Pit Site, the Bollinger Calcasieu Site and the DWLNG facility. The average hydraulic conductivity, average hydraulic gradient, and effective porosity reported for the 20-foot sand zone was reported to be 0.388 feet/day, 0.0005 feet per foot, and 0.2 respectively. The estimated average linear velocity of groundwater in the 20-foot sand zone was calculated to be 0.0017 feet/day or about 0.6 feet per year.

Assuming an average linear velocity of groundwater of 0.6 feet per year, chlorinated hydrocarbons would be expected to move by advection at a similar rate. Over a 20-year period, the contamination could be expected to move by advection approximately 12 feet. The distance from the most southerly known contamination in the 20-foot sand zone is 74 feet north of planned construction activities in the North Slip area. Thus, it is not likely that contamination would migrate south to construction areas. Furthermore, the lack of detections of chlorinated hydrocarbons in North Slip sediment and soil indicates that natural biodegradation processes are likely attenuating the contaminants. The presence of biodegradation products such as cis 1,2 dichloroethene is also a qualitative indicator of the transformation by reductive dechlorination of chlorinated hydrocarbons. Therefore, it is likely that the chlorinated hydrocarbons in groundwater are stable and not expanding.

7.0 Contingency Plan

In the event that contaminated media is encountered, based on indicators such as visual discoloration, odors or sheen on water, DWLNG will refer to and follow the Unanticipated Discoveries Plan (UDP) to manage and control the potential release. The UDP sets out procedures for stopping work, securing the area, reporting the event, investigating the condition, and identifying necessary emergency response actions. The UDP is attached to this RMP as Appendix A.

APPENDIX A

Driftwood LNG Facility and Pipeline Project

Unanticipated Discoveries Plan

Driftwood LNG Facility and Pipeline Project

Unanticipated Discoveries Plan

March 2017

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1 Introduction

Driftwood LNG LLC and Driftwood Pipeline LLC (together, DWLNG) are proposing to site, construct, own, and operate a liquefied natural gas (LNG) production and export facility (Facility) on the west bank of the Calcasieu River near Carlyss, Calcasieu Parish, Louisiana. The Driftwood LNG Project (the Facility and the Pipeline collectively, the Project) will include five liquefaction plants capable of producing up to 26 million tonnes per annum (MTPA) of LNG for global export. Natural gas will be delivered to the LNG facility from existing interstate pipeline systems via a proposed new 96-mile pipeline that includes up to 15 meter stations and associated tie-ins at up to 13 sites, and three compressor stations.

The proposed Project consists of:

- A natural gas liquefaction and export facility, including marine facilities to be located along the west bank of the Calcasieu River between mile markers 22 and 23, in Calcasieu Parish, Louisiana; and,
- An approximately 96-mile Pipeline, to deliver natural gas at an annual average of 4 billion cubic feet per day, consisting of:
 - 74 miles of single 48-inch diameter pipeline;
 - 11 miles of single 42-inch diameter pipeline;
 - 11 miles of single 36-inch diameter pipeline;
 - 3.5 miles of 30-inch diameter pipeline lateral;
 - 3 compressor stations; and
 - Up to 15 meter stations and associated tie-ins at up to 13 sites.

The Project has completed a number of environmental studies in preparation for development of this Federal Energy Regulated Commission (FERC) regulated project. However, occasionally unanticipated discoveries are made during construction even after completion of thorough investigations, such as archeological sites, historical sites, paleontological sites, soil or groundwater contamination, or orphaned oil and gas wells. The Project is developing this Unanticipated Discoveries Plan (UDP) to plan for unanticipated discoveries and lay out initial procedures and training.

1.1 Regulatory Background and Authority

The nature of the unanticipated discovery will dictate the state and federal regulations that cover assessment and reporting. The applicable state and federal regulations are:

- Archeological Sites, Historical Sites, Cemeteries, and Unmarked Burials:
 - Chapter 16 – Louisiana Archaeological Resources (R.S. 41:1601-1615), 1975;
 - Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681), 1992;
 - Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943);
 - Secretary of the Interior’s *Standards for Archaeology and Historic Preservation* (48 CFR 44716-42); and

- FERC, Office of Energy Projects: *Guidelines for Reporting on Cultural Resources Investigations for Pipeline Projects*;
- Soil or Groundwater Contamination:
 - Subtitle II of Title 30 of the Louisiana Revised Statutes;
 - Louisiana Department of Environmental Quality (LDEQ's) Risk Evaluation/Corrective Action Program (RECAP); and
 - Louisiana Administrative Code (LAC) Title 33 Chapter 39 (33:1.3919 - *Notification Requirements for Unauthorized Discharges With Groundwater Contamination Impact*)
- Orphaned Oil and Gas Wells:
 - LDEQ's RECAP; and
 - Louisiana Department of Natural Resources, Oilfield Restoration Program;
- Paleontological Sites:
 - No state regulations

1.2 Cultural Resources

Louisiana has state laws protecting both cemeteries and unmarked burials. An unmarked burial includes any location where human remains have been or may be found inadvertently and where there is no surficial evidence of a burial site (i.e., cemetery fence lines, tombstones, grave markers, etc.). This includes all prehistoric or historic Native American burials as well as all early historic-period Euro-American, African-American, and other isolated burials and abandoned cemeteries that are no longer being used for internments or being maintained in good condition.

Unmarked burials are protected by Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681) and cemeteries are protected by Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943). Both laws outline the reporting protocol in the event an unmarked grave, burial, or historic cemetery is discovered; and establish the office of the Louisiana State Archaeologist (State Historic Preservation Officer, SHPO) as the regulator in charge of these cultural resources.

1.3 Soil or Groundwater Contamination

LDEQ's RECAP rules have been promulgated and became final on October 20, 2003. This regulation establishes the LDEQ's minimum remediation standards for present and past uncontrolled constituent releases. RECAP is a consistent decision-making process for the assessment of, and the response to, environmental contamination that is based on the protection of human health and the environment.

1.4 Orphaned Oil or Gas Wells

Subtitle II of Title 30 of the Louisiana Revised Statutes contains the state regulations governing protection of human health and the environment. LDEQ's RECAP program provides guidelines for assessing and remediating releases of hazardous materials to the environment. The Louisiana Oilfield Site Restoration Program was created in 1993 within the Louisiana Department of Natural Resources to address unrestored orphaned oilfield sites. The specific focus of the program is to properly plug and abandon orphan wells in addition to properly restore the site. Potential contamination associated with wells should be handled in accordance with the soil and groundwater contamination requirements.

2 Unanticipated Discovery Procedures

UDP procedures have been developed for unanticipated discoveries associated with Project construction. A flow chart illustrating the specific protocols for the soil and groundwater sites and cultural resources is provided as a quick reference to be used during training (

Figure and 2). A summary of the protocols for each discovery type is discussed below.

2.1 Unanticipated Discovery Procedure Training

UDP training will be provided to Project staff and contractors tasked with supervising or overseeing ground disturbing activities during pre-construction, construction, operation, and decommissioning phases of the Project lifecycle.

The training will include the following elements:

- Applicable local, state, and federal legislation and requirements;
- Overview of the known resources within the Project area and its immediate vicinity, as it relates;
- The training will include hazard identification and worker protection;
- Introduction to in-field identification of unanticipated discoveries; and
- The protocols to be followed and notification requirements in the event an unanticipated discovery is made during Project activities.

UDP training will be incorporated into the onboarding training for appropriate Project and contractor staff.

2.2 Cultural Resources

2.2.1 Cultural Finds or Sites

For purposes of the UDP, archaeological material is defined as any prehistoric or historic object (artifact), feature, structural remains, or landscape modification. Examples include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone;
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone;
- A cluster or concentration of prehistoric or historic artifacts;
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds; and
- Building ruins such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

Prior to construction of the Project, the site owner will name a Site Manager who will be responsible for daily supervision of construction and is expected to be present on site during all phases of construction. The following general procedure is to be executed if archaeological material is discovered by any Project staff or contractor during Project activities:

1. Construction activity within a 10-foot buffer of the discovery will be stopped immediately.
2. The Site Manager will be informed of any find or sites identified. The Site Manager will then contact the Project health, safety and environmental (HSE) representative for the area. All remains or materials will be left in place for further evaluation.
3. The HSE representative will contact the Site Manager and supervise installation of site protective measures. The Site Manager will contact the owner representative.
4. The Site Manager will secure the area around the discovery and protective measures will be put in place to prevent any damage, loss, or removal of objects or features.
5. The owner representative will contract with an appropriate cultural resource specialist to document the discovery and a determination will be made of the need for additional examination in consultation with appropriate parties.
6. The owner representative will notify FERC, SHPO, Native American Tribes, Louisiana Division of Archeology (LDA) and other authorities that have expressed interest, as required.
7. Depending on the results of the professional assessment of the find, the SHPO will determine its research potential, and/or NRHP eligibility. If the find lacks research potential or is determined to be ineligible for listing on the NRHP, resumption of construction may be allowed, with continued monitoring during construction activities as may be appropriate (as in the case where new data suggests that the likelihood of additional finds is moderate to high). In such case, the cultural research specialist will remain on site for the duration of any operations that may expose or damage cultural resources. The cultural research specialist will have the opportunity to collect further information during construction by means of photographs and various measurements, staying in contact with the SHPO throughout the evaluation process. If, at the end of such monitoring, and in consultation with the SHPO, the resources are determined to be ineligible for NRHP listing, the cultural research specialist will submit to the Project, the SHPO, FERC, and interested Native American tribes a formal data recovery and mitigation plan.

If the find is determined as eligible or potentially eligible for NRHP listing, the Site Manager, in consultation with the owner representative, will initiate the necessary mitigations (Phase II testing or Phase III data recovery).

8. No work that could result in impacts to the discovery will proceed until required mitigations are implemented and, where applicable, the appropriate regulatory agencies have given clearance for work to proceed.
9. If the discovery includes potential human remains or unmarked burial sites, the procedures in the section below should be followed.

2.2.2 Human Remains and Unmarked Burials

The probability of encountering human remains in the Project area is low; however, in the event that an unmarked burial, including human remains, are encountered during construction on privately owned or other non-federally owned lands, the following plan outlines the specific procedures to be followed.

These procedures meet or exceed the requirements of the Louisiana Unmarked Human Burial Sites Preservation Act (Act 1991, No. 704, §1, effective January 1, 1992). Should any human remains or other associated cultural objects be encountered on federal lands, the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) will be followed with the responsible Federal official being contacted immediately upon discovery for further instruction. However, no Federal lands are currently proposed to be affected by the Project.

1. If an unmarked burial is encountered during construction, the Site Manager shall notify the Project representative and HSE representative, the law enforcement agency, and the coroner of the jurisdiction where the site or remains are located, the SHPO, the FERC, and the state archeologist acting on behalf of the Unmarked Burial Sites Board within 24 hours of discovery. The cultural resource specialist will also be contracted to assist with identifying the remains.
2. If the coroner finds that the unmarked burial site is over 50 years old and that there is no need for a legal inquiry by his office or for a criminal investigation, the SHPO shall have jurisdiction of the site, human skeletal remains, and the burial artifacts. The disposition of unmarked burial sites, human skeletal remains, or burial artifacts shall proceed as follows:
 - i. Every reasonable effort will be made to restore the unmarked burial site and to avoid disturbing the human skeletal remains or burial artifacts;
 1. If the SHPO determines that the burial site has significant scientific value, the SHPO may issue a permit for scientific study.
 2. Any agreement by the owner of the property to leave the unmarked burial site undisturbed shall constitute consent on the owner's part to allow relatives of the deceased or any other interested parties free access to the site without the owner's permission.
 - ii. The Project representative, in coordination with the SHPO shall make reasonable efforts to identify and locate persons who can establish direct kinship with or descent from the individual whose remains have been found.
 - iii. If the unmarked burial site or the human skeletal remains can be shown to have ethnic affinity with a living Native American tribe, the Project representative will notify the tribe of the discovery.
 - iv. If the human skeletal remains must be removed, then control of the disposition of these remains will be in the following order:
 1. If any direct relations or descendants are found, such person or persons will have the right to control the disposition of the human skeletal remains.
 2. If the human skeletal remains can be shown to have ethnic affinity to any living tribe of Native Americans, then the tribe will have control of the disposition of the human skeletal remains.
 - b. If no direct relation or descendant is found, or if no ethnic affinity of the human skeletal remains to any living Native American tribe can be shown, or if no direct relation or descendant or Native American tribe takes responsibility for the re-interment of the human remains, then the SHPO shall determine the proper disposition of the human remains.
3. If a permit has been issued pursuant to R.S. 8:676(A)(6), the cost of disinterment, re-interment, or study of the human skeletal remains shall be paid by the Project, or their agent.

4. All burial artifacts found in an unmarked burial site shall become the property of the state and the SHPO shall be the custodian thereof. The disposition of the burial artifacts shall be made by the SHPO in accordance with its regulations. The SHPO may donate the burial artifacts to an educational institution, a public museum, or a Native American tribe for display and study purposes. In no event, however, shall the SHPO or any recipient sell the burial artifacts.

2.3 Other Finds or Discoveries

Project works may uncover other man-made artifacts which are not of historic, cultural, or archaeological significance. As previously stated these additional discoveries include orphaned oil and gas wells and contaminated soils and groundwater. For the purposes of the UDP, “contaminated soils/sediments” is defined as any medium (including surface soil, sediment associated with water bodies, subsurface soil, surface water and groundwater) that, while engaged in Project construction activities, is identified as having indicators of chemical contamination.

These indicators may include:

- Buried drums or containers, rusted or in otherwise poor condition
- Stained or discolored soil (in contrast to adjoining materials)
- Spoil material containing debris other than obvious inert construction material
- Chemical or hydrocarbon odors emanating from excavations
- Visible sheen or other discoloration on surface water or groundwater
- Structures such as pipelines or underground storage tanks

The following procedure is to be executed if the presence of contaminated media is suspected or discovered by a Project staff or contractor during Project construction activities:

1. Construction activity within a 10-foot buffer around the discovery will be stopped immediately.
2. The Site Manager will be informed of the discovery. The Site Manager will then contact the HSE representative for the area. All contaminated media or exposed orphaned wells will be left in place.
3. The HSE representative will coordinate with the Site Manager. The Site Manager will contact the owner representative.
4. The Site Manager will, if safe to do so, secure the area around the discovery and install protective measures such as flagging or barrier tape to prevent unauthorized entry into the exclusion zone and personnel contact with contaminated media or exposed oil and gas well.
5. If warranted, the owner representative will notify the FERC, the LDEQ, the local parish emergency response contact, and other authorities within 7 days, as required, for contaminated media. For reported unanticipated orphaned oil and gas wells, the Project will contact the Louisiana Department of Natural Resources.
6. Upon notification, the HSE representative will perform or direct a hazard assessment to determine appropriate control measures to be implemented that may include sampling breathing zone ambient air, soil, soil gas, sediment, groundwater, and/or wipe samples of

infrastructure or debris. Samples should be analyzed against the appropriate RECAP site screening standard.

7. The owner representative will contract with an appropriate environmental and/or emergency response specialist to put measures in place based on results of the screening.
8. If potentially contaminated soil or groundwater reaches (or has the potential to reach) surface waters, then the measures set forth in the Project Spill Prevention, Control and Countermeasures Plan shall be followed.
9. No work that could disturb contaminated media will proceed until required mitigations and/or cleanup are implemented and, where applicable, the appropriate regulatory authorities have given clearance for work to proceed.
10. Upon evaluation of emergency response actions and sampling results, additional notifications may be made to coordinate further measures to be implemented in the contaminated area to protect personnel and the environment and resume activities in a safe, environmentally compliant manner. Measures may include additional personal protective equipment, segregation of contaminated media, and treatment or off-site disposal of contaminated media.
11. Identification, delineation, characterization, handling, labeling, storage, manifesting, transportation, record keeping, and disposal of potentially contaminated media shall be conducted in accordance with applicable federal, state and local regulations and guidance.

Figure 1. Cultural Resource Response Protocols

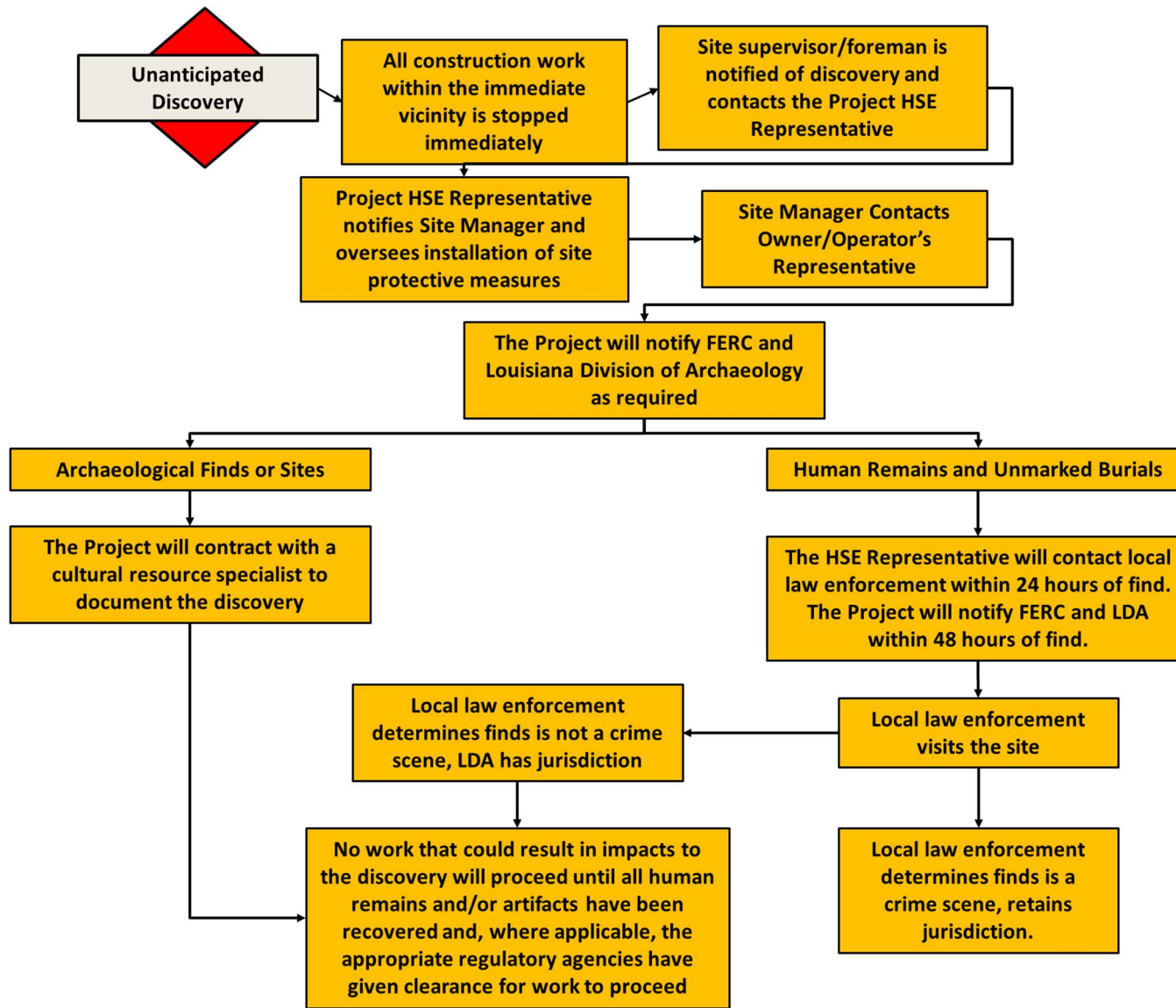
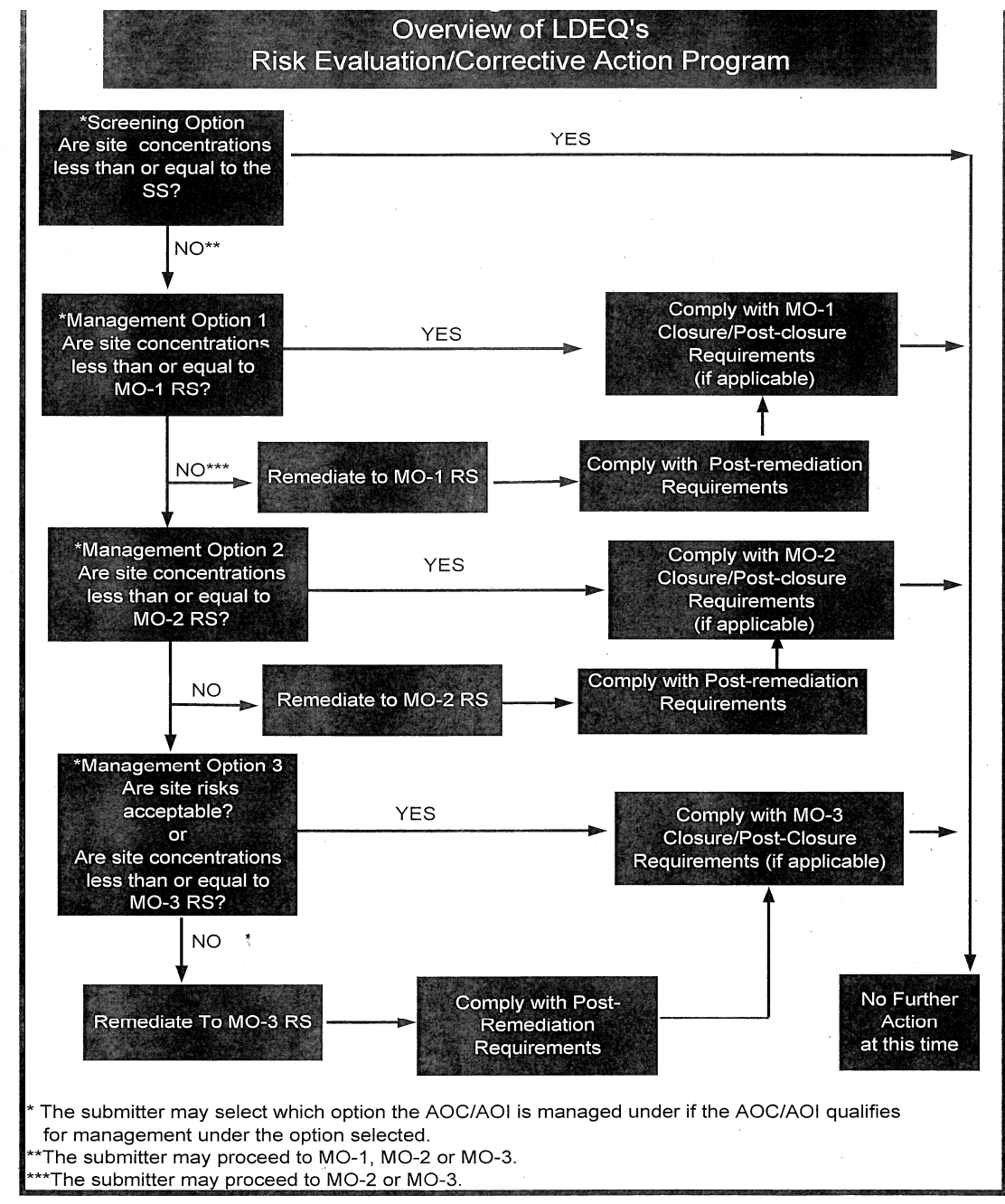


Figure 2. Contaminated Soils and Groundwater Response Protocols



3 Key Stakeholders

In the event of an unanticipated discovery, the key stakeholders and/or agency officials listed below should be contacted consistent with the steps outlined above.

FERC Contact

Laurie Boros
Staff Archaeologist
Federal Energy Regulatory Commission
888 1st Street NE
Washington, DC 20426
Phone: (202) 502-8046
laurie.boros@ferc.gov

FERC Project Manager

Kelley Munoz, Environmental Project Manager
Federal Energy Regulatory Commission, Office of Energy Projects
888 1st Street NE
Washington, DC 20426
Phone: (202) 502-6739
Kelley.Munoz@ferc.gov

Driftwood LNG LLC and Driftwood Pipeline LLC

Howard Candelet
1201 Louisiana, Suite 3100
Houston, Texas 77002
Phone: 1 832 962 4000
howard.candelet@driftwoodlng.com

Louisiana Department of Natural Resources

Matt Simon
Manager
Oilfield Site Restoration Program
(225) 342-6089

Louisiana Division of Archaeology

Charles McGimsey, PhD
State Archaeologist
Louisiana Office of Cultural Development
Division of Archaeology
1051 N. 3rd St., Room 319
Baton Rouge, LA 70802
Phone: (225) 219-4598
cmcgimsey@crt.la.gov

Louisiana Department of Environmental Quality

Single Point of Contact (SPOC)

1 (225) 219-5337

Governor's Office of Indian Affairs

Executive Director

P.O. Box 94004

Baton Rouge, LA 70804

Phone (225) 219-8715

Fax (225) 219-7551

Inter-Tribal Council of Louisiana, Inc.

Kevin Billiot, Director

5723 Superior Dr., Suite B-1

Baton Rouge, LA 70816

Phone (225) 292-2474

Tribal Representatives (Federally-Recognized)

Bryant Celestine

Alabama Coushatta Tribe of Texas

Historic Preservation Officer

571 State Park Rd. 56

Livingston, TX 77351

Phone (936) 563-1181

Fax (936) 563-1183

histpres@actribe.org

Celestine.bryant@actribe.org

Ian Thompson,

Tribal Historic Preservation Officer

Choctaw Nation of Oklahoma

P.O. Drawer 1210

Durant, OK 74702

Phone: (580) 924-8280, ext. 2216

ithompson@choctawnation.com

Dr. Linda Langley

Tribal Historic Preservation Officer

Coushatta Tribe of Louisiana

Heritage Department

P.O. Box 10

Elton, LA 70352

Phone (337) 584-1567

llangley@mcneese.edu

Tribal Representatives (Federally-Recognized) continued

Alina Shively
Deputy Tribal Historic Preservation Officer
Jena Band of Choctaw Indians
P.O. Box 14
Jena, LA 71342-0014
(318) 992-1205
ashively@jenachoctaw.org

Kenneth H. Carleton
Tribal Historic Preservation Officer/Archaeologist
Mississippi Band of Choctaw Indians
P.O. Box 6257
Philadelphia, MS 39350
Phone: (601) 650-7316
Fax: (601) 650-7454
kcarleton@choctaw.org

Earl Barbry, Jr.
Museum Division Offices Tunica-Biloxi Tribe of Louisiana
P.O. Box 1589
Marksville, LA 71351
Phone: (318) 253-8174
Fax (318) 253-7711
earlii@tunica.org

Calcasieu Parish:**Calcasieu Parish Police Jury Office of Emergency Preparedness**

Director Dick Gremillion
1015 Pithon Street
Lake Charles, LA 70602
Phone: (337) 721-3800

Calcasieu Parish Clerk

H. Lynn Jones II
Calcasieu Parish Clerk of Court
1000 Ryan Street
Lake Charles, LA 70601
Ph: (337) 437-3550
Fax: (337) 437-3350

Calcasieu Parish Sherriff

Sheriff Tony Mancuso
5400 E. Broad St.
Lake Charles, LA 70615
Phone: (337) 491-3715

Calcasieu Parish Justice of the Peace

Mrs. Cathy Michiels
Justice of the Peace, Ward 1
1207 Cheyenne Drive
Lake Charles, LA 70611
Phone: 337-855-4065

Jefferson Davis Parish:

Jefferson Davis Parish Clerk of Court
Richard M. Arceneaux
300 North State Street, Room 106
Jennings, LA 70546
Phone: (337) 824-1160

Jefferson Davis Parish Sherriff
Ivy Woods
321 E. Plaquemine St., Room 102
Jennings, LA 70546
Phone: (337) 824-3850

Acadia Parish:

Acadia Parish Police Jury
Lee Hebert, Director
568 Northeast Court Circle
Crowley, LA 70526
Phone: (337) 783-4357

Acadia Parish Clerk of Court
Robert T. Barousse
500 North Parkerson Avenue
Crowley, LA 70526
Phone: (337) 788-8881

Acadia Parish Sherriff
K. P. Gibson
1037 Capitol Avenue
Crowley, LA 70526
(337) 788-8700

Evangeline Parish:

Evangeline Parish Police Jury
Liz Hill, Director
415 W. Cotton Street
Ville Platte, LA 70586
Phone: (337) 363-3267

Evangeline Parish Clerk of Court
Randall M. Deshotel
200 Court Street, Suite 104
Ville Platte, LA 70586
Phone: (337) 363-5671

Evangeline Parish Sherriff
Eddie Soileau
200 Court Street, Suite 100
Ville Platte, LA 70586
(337) 363-2161

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT
ENVIRONMENTAL IMPACT STATEMENT

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

LANDOWNER
LO1 - Atherton

F-1

ORIGINAL	FEDERAL ENERGY REGULATORY COMMISSION DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC DRIFTWOOD LNG PROJECT (DOCKET NOS. CP17-117-000 AND CP17-118-000) Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed ¹ . <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"><i>Please send one copy referenced to Docket Nos. CP17-117-000 and CP17-118-000 to the addresses below.</i> For Official Filing: Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE, Room 1A Washington, DC 20426</div> <div style="text-align: right; margin-top: 20px;"><div style="border: 1px solid black; padding: 2px; display: inline-block;">RECEIVED FEDERAL ENERGY REGULATORY COMMISSION OCT 18 2018 1:57 PM</div><div style="margin-left: 10px;">1 of 2</div></div>
LO1-1	<p>COMMENTS: (PLEASE PRINT) <i>[attach an additional sheet if necessary]</i></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"><i>Charlie Atherton I am providing hard copies of official documentation and public comments to FERC to be included in the public record as comments on the Driftwood Draft EIS.</i></div> <div style="margin-top: 20px;"><hr/><hr/><hr/><hr/><hr/><hr/><hr/><hr/><hr/><hr/></div> <p>Commentor's Name and Mailing Address (Please Print)</p> <div style="margin-top: 10px;"><hr/><hr/><hr/><hr/><hr/><hr/><hr/><hr/></div>
¹ The Commission encourages electronic filing of comments. See 18 Code of Federal Regulations 385.200 (a)(1)(i) and the instructions on the Commission's Internet website at http://www.ferc.gov under the link to "Documents and Filings" and "eFiling." eFiling is a file attachment process and requires that you prepare your submission in the same manner as you would if filing on paper, and save it to a file on your hard drive. New eFiling users must first create an account by clicking on "Sign up" or "eRegister." You will be asked to select the type of filing you are making. This filing is considered a "Comment on Filing." In addition, there is a "Quick Comment" option available, which is an easy method for interested persons to submit text only comments on a project. The Quick Comment User Guide can be viewed at http://www.ferc.gov/docs/efiling/efiling-quick-comment-guide.pdf . Quick Comment does not require a FERC eRegistration account, however, you will be asked to provide a valid email address. All comments submitted under either eFiling or the Quick Comment option are placed in the public record for the specified docket or project number(s).	

LO1-1 Mr. Atherton's letter included attachments that are not directly related to the proposed Project. Those attachments can be viewed at the FERC website, www.ferc.gov, docket no. CP17-117 and CP17-118, accession number 20181018-0015.

Landowner

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

F-2

Driftwood FERC 10/11/18 West Cal Events Center, Sulphur, Louisiana, Public Comments
LNG Driftwood No. PF16-6-000
To: Kimberly D. Bose, Secretary FERC
From: Charlie Atherton, 122 Vine St., Sulphur, La. 70663
Hand delivered to FERC Court Reporter 10/11/18, West Cal Events Center, Sulphur, Louisiana.

LO1-2 WE DO NOT BELIEVE THAT FERC HAS FULFILLED IT'S RESPONSIBILITY IN FOLLOWING THE INTENT OF THE LAW. IN OUR OPINION FERC HAS NOT FULLY RESPONSIBILY AND MEANINGFULLY ADDRESSED ALL THE ISSUES THE PUBLIC DOCUMENTED IN PREVIOUS FERC MEETINGS.

LO1-3 ALL THE PUBLIC HAS TO DO IS READ THE FIRST WORDS OF THE FERC REGULATORY PROCESS TO SEE THAT FERC CAN'T DELEGATE OR PASS ON THE RESPONSIBILITY OF ENVIRONMENTAL SAFETY OR NEGATIVE COMMUNITY IMPACTS TO THE COAST GUARD, ARMY CORP ENGINEERS, DEPARTMENT OF TRANSPORTATION OR ANY ONE ELSE. FERC IS REQUIRED TO CONSIDER ALL COMMUNITY NEGATIVE IMPACTS AND ALL KNOWN AND DOCUMENTED DRIFTWOOD LNG SHIP NAVIGATION HAZARDS, KNOWN POTENTIAL FOR ENVIRONMENTAL DISASTERS, ALL ALONG THE DRIFTWOOD LNG SHIP NAVIGATION ROUTE FROM THE GULF OF MEXICO TO DRIFTWOOD'S PROPOSED LNG SITE LOCATION AND BACK OUT TO THE GULF OF MEXICO. FERC CANNOT ONLY CONSIDER JUST THE PHYSICAL REAL ESTATE SITE BY ITSELF. FERC HAS TO CONSIDER THE LNG SHIPS TRANSPORTATION ROUTE AND NOT SET UP PUBLIC SAFETY FOR POTENTIAL DISASTER.

OVERVIEW

The Federal Energy Regulatory Commission (FERC) is the lead federal agency responsible for ensuring the development of safe, reliable, secure and efficient natural gas infrastructure. FERC authorizes the construction of LNG facilities and oversees their operation throughout the life cycle of each facility.

The FERC approval process involves a detailed review of the proposed design of the facility to ensure a high level of safety and a review of any environmental and community impacts.

FERC REVIEW PROCESS

The initial step in FERC's review process is to submit a request to enter FERC's pre-filing phase. The pre-filing process helps establish the scope of the environmental review.

Driftwood LNG will submit draft Resource Reports to FERC. Final versions of the reports

LO1-2 Section 4.13.1 of the EIS describes the regulatory requirements from DOT, USCG, and other applicable agencies as well as the analysis that FERC undertook to address potential reliability and safety aspects of the Project. In addition, see the response to comment TS2-33.

LO1-3 Please see the response to comment LO1-2.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

F-3

are submitted with the official FERC Application at the end of the pre-filing phase to initiate the formal FERC review process. The publication of these environmental studies provides FERC and the public with information about any potential impacts of the proposed project.

NAVIGATION AND VESSEL INSPECTION CIRCULAR (NVIC) NO. 01-2011
Subj: GUIDANCE RELATED TO WATERFRONT LIQUEFIED NATURAL GAS (LNG) FACILITIES

(1) Role of FERC. FERC has the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal located onshore or in state waters.

(2) Role of Coast Guard. The Coast Guard exercises regulatory authority over waterfront LNG facilities and the associated LNG vessel traffic, which affect the safety and security of port areas and navigable waterways.

LO1-4 When Coast Guard Lieutenant Commander M. J. MCCadden refused to require that Sempra Cameron LNG build their new LNG docks in a protected ship berth located further west away from the narrow Calcasieu River Ship Channel where LNG ships would be safely docked away protected from every day passing ship traffic, it forever prevented FERC from ever approving a new LNG site upriver of Sempra Cameron LNG docks. When Coast Guard Lieutenant Commander M. J. MCCadden allowed LNG ships to be docked at a 45-degree angle to close passing ship traffic on the side of the narrow Calcasieu River Ship Channel it forever prevented FERC from ever approving a new LNG site upriver of Sempra Cameron LNG docks. We are not aware of any dock in the USA where ships are docked at a 45-degree angle to passing ship traffic.

LO1-5 The public is of the understanding that FERC cannot accept Driftwood's application or move forward with the permitting process until Driftwood LNG has a valid approved LOI (Letter Of Intent) and valid WSA (waterway Suitability Assessment) from the Coast Guard. It is FERC's responsibility and authority to deny the Driftwood LNG site location if the location will contribute to or facilitate an environmental disaster because the Coast Guard has knowingly allowed an unsafe LNG dock location and design to be built that now requires Driftwood LNG ships to use navigation mitigation that full bridge simulations have shown to fail, to try to safely navigate past moored LNG ships at Sempra Cameron LNG docks. The Coast Guard has now put FERC in a no-win situation but to deny the proposed Driftwood LNG site location because the Coast Guard allowed the Sempra Cameron LNG docks to be built in an unsafe, unprotected location using a docked ship design that facilitates ship collisions and allisions and now requires navigation mitigation. Just FERC knowing that navigation mitigation is needed for crude oil ships going to Phillips 66 and Citgo is enough information for FERC to deny the new Driftwood LNG site location application. FERC certainly does not want Driftwood LNG ships subject to navigation mitigation from docked Sempra Cameron LNG ships the very start of the application process.

LO1-4 The final EIS for Cameron LNG was filed on FERC's eLibrary on April 30, 2014, accession number 20140430-4001, and included responses to comments regarding coordination with the USCG for the Cameron Liquefaction Project. In addition, section 4.13.1.4 of the Driftwood EIS describes the USCG's Letter of Recommendation (LOR) and LOR Analysis that was issued to FERC on April 25, 2017 stating that the Calcasieu Ship Channel should be considered suitable for accommodating the type and frequency of LNG marine traffic associated with the Driftwood Project.

LO1-5 See the response to comment LO1-4. In addition, EIS section 4.13.1.4 describes the LOR and Preliminary WSA that DWLNG submitted to the USCG in a letter dated May 12, 2016. Also, please see the response to LO1-6.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

The forever new financial mitigation cost to channel users and the navigation environmental dangers were well documented to FERC and the Coast Guard before Semptra Cameron LNG started dock construction. Coast Guard LCDR W.R. (Buddy) Reams III, Commanding Officer, United States Coast Guard, Marine Safety Unit Lake Charles said, **"As a regulator, I operate an environment where I don't have to consider the bottom line. That makes things a lot easier for me."** Obviously, the law does not prevent the Coast Guard from bottlenecking the narrow Calcasieu River Ship Channel, or law stopping the Coast Guard from allowing a potential environmental disaster situation to develop and be built, or the law even stop the Coast Guard from causing never before expensive new navigation mitigation cost to be incurred forever by current and new users of the narrow Calcasieu River Ship Channel. Thankfully, however, the law clearly requires FERC to consider navigation mitigation financial impacts along with all other negative impacts to the community and environment. When Coast Guard LCDR W.R. (Buddy) Reams III, Commanding Officer, United States Coast Guard, Marine Safety Unit Lake Charles said, **"As a regulator, I operate an environment where I don't have to consider the bottom line. That makes things a lot easier for me."** it forever prevented FERC from ever approving a new LNG site upriver of Semptra Cameron LNG docks. It has never been determined who has to pay for the navigation mitigation.

The public believes that the proposed site location for the Driftwood LNG facility is the wrong site location and should not be FERC approved as an LNG facility. FERC should deny Driftwood's site location. Driftwood should not be granted a LOI or WSA because Driftwood LNG is upriver of the existing Semptra Cameron LNG facility. Driftwood LNG ships have to navigate past the Semptra Cameron LNG docks where LNG ships will be moored at a 45-degree angle on the west side of the narrow Calcasieu River Waterway Ship Channel. We believe that enough professional documentation exists that identifies the possibility of an environmental disaster of biblical size.

The public has been extremely lucky that till this day that no LNG ships have navigated past the Semptra Cameron LNG docks that the public is aware of and the public is not aware of any large crude oil tankers that have navigated past the Semptra Cameron LNG docks when LNG ships were moored at the LNG dock. Since built, only a few LNG ship have docked at the Semptra Cameron LNG docks even though it is FERC authorized to be around 200 a year of limited size.

The public knows the heart of the environmental safety issue is not what has to happen for a passing LNG ship to hit a docked LNG ship, but rather what has to happen exactly correctly every time for a passing LNG ship or crude oil ship to NOT hit a docked LNG ship, have a ship allusion, have a ship grounding, or have LNG ships torn away from the mooring docks.

The public does not believe that loaded or empty Driftwood LNG ships can safely navigate past loaded or empty LNG ships moored at the Semptra Cameron LNG docks located at a 45-degree angle, on the side of the narrow Calcasieu River Waterway Ship Channel located at the town of Hackberry, Louisiana. The public believes that Driftwood LNG ships passing loaded LNG ships moored at the Semptra Cameron LNG

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

LO1-6

docks may be involved in ship collisions, ship allisions, ship groundings or moored LNG ships being torn from their dock moorings.

The public is requesting that FERC require Driftwood LNG to perform independent third-party full bridge simulations for Driftwood LNG ships passing LNG ships moored at Sempra Cameron LNG docks. These independent third-party simulations are to show if loaded and empty Driftwood LNG ships **can safely navigate past** loaded and empty LNG ships moored at Sempra Cameron LNG docks without passing Driftwood LNG ships hitting loaded LNG ships moored at the Sempra Cameron LNG docks, or encountering ship allisions or ship groundings. Independent third-party Simulations should be performed for different size ships that are passing and different size ships that are moored, different tides, water levels, weather conditions, and channel dredged depth conditions at the docks.

The public is requesting that FERC require Driftwood LNG to perform independent third-party full bridge simulations for loaded and empty Driftwood LNG ships passing loaded and empty LNG ships moored at Sempra Cameron LNG docks. These independent third-party simulations are to show if the passing Driftwood LNG ships **will pull loaded or empty LNG ships free** of the Sempra Cameron LNG docks where the ships were moored prior to Driftwood LNG ships passing. Citgo simulations suggest that moored LNG ships may be torn away from the Sempra Cameron LNG dock moorings. Independent third-party simulations should be performed using **different mooring line numbers and configurations** for different size ships that are passing and different size ships that are moored, different tides, water levels, weather conditions, channel dredged conditions, etc.

The first attached full bridge simulation documents are by the Calcasieu River Waterway Harbor Safety Committee (CRWHSC) that show that the Sempra Cameron LNG docks should have never been allowed to be located at a 45 degree angle to the narrow channel, on the side of the narrow Calcasieu River Waterway Ship Channel, so close to passing ship traffic, including large crude oil tankers and future LNG ships to Trunkline LNG and future Magnolia LNG, and now LNG ships are going to Driftwood LNG. All LNG ships to and from the currently operating Trunkline LNG, future Magnolia LNG ships, and future Driftwood LNG ships, all have to navigate past the current Sempra Cameron LNG docks.

The second set of attached full bridge simulation documents are independent simulations paid for by Citgo Petroleum that were performed immediately after the Calcasieu River Waterway Harbor Safety Committee simulations were completed so that the simulation conditions were identical to the CRWHSE simulation conditions. The Citgo full bridge simulations also show that the Sempra Cameron LNG docks should have never been allowed to be located at a 45 degree angle to the narrow channel, on the side of the narrow Calcasieu River Waterway Ship Channel, so close to passing ship traffic, including large crude oil tankers and LNG ships to Trunkline LNG and later Magnolia LNG, and now LNG ships are going to Driftwood LNG. Driftwood LNG should be required to perform the public requested independent third-party full bridge simulations as the Coast Guard says environmental safety mitigation is needed for ships to navigate past the Sempra Cameron LNG docks.

LO1-6 As part of the WSA and FERC process, full bridge simulations are conducted to ensure all proposed LNG marine vessels can navigate the channel safely. The simulations would include site specific tides, currents, visibility, weather conditions, and day night conditions. In addition, the evaluation includes other LNG marine vessels passing by when docked and potential failures of the traversing LNG marine vessel (e.g., failure of propulsion systems or maneuverability of LNG marine vessels). These simulations are conducted with the pilots and USCG, and comments from those simulations are factored into the safety and security needs in the WSA and LOR process. Also, please see the response to comments LO1-4 and LO1-5.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

The attached Coast guard letters acknowledge the fact that now expensive navigation mitigation, tractor tugs, are needed in order to mitigate the chance of ship collisions, ship allisions, or ship groundings, in passing the Semptra Cameron LNG docks. Note that no mitigation was ever needed in this stretch of the Calcasieu River Waterway Ship Channel before the Semptra Cameron LNG docks were built. Also Note that this environmental safety issue was raised by the public before the Semptra Cameron LNG docks were built and the public (that owns and pays for the waterway) requested that Dynergy Semptra Cameron LNG locate their proposed dock far enough to the west of the ship channel so that passing ship traffic safety would not be compromised and no mitigation would be required. The public suggested that if Highway 27 needed to be relocated further west to allow enough room for a safe dock that this could certainly be done, because the local highway next to Trunkline LNG was moved further east to allow the ship slip dock canal to extend further away from the ship channel traffic where safe LNG docks were built.

No government agency should knowingly allow a navigation environmental safety hazard or expensive social economic burden to be built that knowingly requires navigation mitigation that will also be a great financial burden on all current and future channel users, whose costs ultimately get passed on to be paid by the public that owns the waterway to start with. FERC should not knowingly allow increased Driftwood LNG ship traffic to increase the chances of an environmental disaster.

Also attached are a whole series of MarEx newsletters titled: Lake Charles Cameron LNG Terminal: Model for Success or Recipe for Disaster. The documented information cannot be ignored. An excerpt follows.

As reported in the **MarEx Newsletter**, in the June 19, 2007 quarterly board meeting of the CRWHSC held in Lake Charles, Coast Guard LCDR W.R. (Buddy) Reams III, Commanding Officer, United States Coast Guard, Marine Safety Unit Lake Charles said,

"As a regulator, I operate an environment where I don't have to consider the bottom line. That makes things a lot easier for me." According to a reporting service transcription of the June meeting of the Calcasieu River Harbor Safety Committee (CRHSC), these were the exact words of LCDR W.R. (Buddy) Reams III, Commanding Officer, United States Coast Guard, Marine Safety Unit Lake Charles, during a discussion of whether tugs would be required for traffic passing the rapidly developing Semptra LNG terminal on Lake Charles' Calcasieu River. The discussion also dealt with the question of who would be paying for these assist or escort tugs, if required. The issue of tugs, safety and money sparked lively discussions at the June CRHSC meeting.

Reams' comments regarding money could well be true, but it is doubtful that his superiors inside the beltway will be happy that they were spoken at a public meeting, especially in the choppy wake of the messy Deepwater debacle. With as much as \$100 million of the taxpayer's money (potentially) down the drain in a failed attempt to lengthen a series of patrol boats, it is also a fact that the Coast Guard will have to consider the bottom line, and very closely in the years to come. Congress has made this point crystal clear in recent months.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

F-7

Back in Lake Charles, it is also becoming apparent that commencement of operations at the Semptra Cameron LNG terminal will impact someone's bottom line, especially when it comes to considering who will pay for tug escorts which will almost certainly be a part of the terminal's safety regime. Channel users want to know whose bottom line that entails.

MarEx has obtained the transcript of the June meeting where, among other things, the U.S. Coast Guard's Buddy Reams told attendees that (a.) there would be no mandated or regulated navigation area with regard to the Semptra LNG Terminal, (b.) the Coast Guard does not consider the Semptra facility to be of any greater risk than any other facility on the ship channel and (c.) that Cameron LNG is going have at least three tug boats available to enhance shipping safety and mitigate allision risks. MarEx attempts to confirm that these tug boats will in fact be a part of the safety equation once the terminal commences operations have been unsuccessful.

Almost \$300,000 in local funds have been expended to study the potential risks that might be inherent in the design of Semptra's unique, almost one-of-a-kind "V-shaped" berths. Nevertheless, in June, channel users were still in the dark as to how any risks might be mitigated. John Gott, Plant Manager of ConocoPhillips, representing the refinery operators on the river, was even more to the point: "I was expecting to see something a little more specific around the speed and maximum wind and the specific conditions at these facilities. That's what this committee was looking for. And I'm not just picking on Semptra...I would have expected by this point that we would have had -- based on all the study work, the Oceanic (report)...that we would have been able to say with some degree of confidence, you know, the prudent passing speed to be limited to X knots with no travel beyond a certain wind speed."

The issue of public concern that is always ignored and never addressed is the lack of liability insurance or a monetary trust fund to cover collateral damage to the public citizens, businesses, and publicly owned facilities and infrastructure in case of LNG ship explosions and disasters resulting from LNG ships in transit or docked. It is the public's understanding that LNG insurance only covers the ship and its cargo, not any resulting collateral.

LO1-7

Equally of public concern that is always ignored and never addressed is the lack of liability insurance or a monetary trust fund to cover collateral damage to the public citizens, businesses, and publicly owned facilities and infrastructure in case of an explosion or other disaster at an LNG land base facility. We are requesting FERC to address the public liability insurance issue.

LO1-8

The public wants the combined total area emissions of CO2 from all LNG facilities and industry combined addressed. It appears that LNG facilities emit an average of 600,000 tons of CO2 a year or more depending upon the facility. There are 3 existing locally with 2 more LNG facilities within 30 miles, and 6 - 15 in the permitting process along the gulf coast. We believe this proposes additional significant CO2 emission problems that FERC should address.

The financial impact to the public because of the now needed outrageous navigation mitigation cost should be addressed by FERC as it is a Social Economic issue for the paying public. It has never been established and documented who will

As described in the EIS, Section 3A(e) of the NGA (as amended by EAct 2005) specifies that the ERP must include a Cost-Sharing Plan that contains a description of any direct cost reimbursements the applicant agrees to provide to any state and local agencies with responsibility for security and safety at the LNG terminal and in proximity to LNG carriers that serve the facility. Further explanations of the Cost-Sharing Plan are described in Section 4.13.1.5 of the EIS. Public liability insurance is not included in these requirements.

LO1-7

GHG emissions (of which CO₂ emissions are the primary) do not have a localized impact. GHG emissions combine with all other GHG emissions worldwide to increase global CO₂ levels (although there are local and regional variations as well as seasonal changes).

LO1-8

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

LO1-9

actually pay the full price of the tractor tugs and pilotage used in mitigation in passing the Semptra Cameron LNG docks when LNG ships are moored.
History has shown the Calcasieu River Waterway is always in need of dredging and it is never completely dredged to the authorized dimensions of 400 feet wide and 40 foot deep. It is not uncommon to only be 150 feet wide and 38 feet deep on occasions. The CORP struggles at times to maintain 250 feet wide.
It can never be assumed that the narrow channel around the Semptra Cameron LNG docks will always be dredged to 45 feet deep. The authorized dimension is 40 feet. We are attaching additional documentation to support the public request for the Driftwood LNG site location to be denied.

FERC is following the letter of the law, but not following the intent of the law relative to pipeline right of ways. The FERC pipeline process, with the threat of Eminent Domain to the landowner, does not allow landowners a level playing field. Accurate information is not readily available or timely to the affected landowners.

The coast guard's following participation and response in this Driftwood Draft Environmental Impact Statement 9/14/18 in our opinion is not an accurate account of their past actions and past actions were driven by politics in fast tracking what is now the Cameron LNG permitting process as we have attempted to document in our comments. In the Calcasieu River Waterway Harbor Safety Committee meeting of 10/09/18 the presentation by the river pilots and state senator stated that the Calcasieu Ship Channel will cease to be functional in the near future without the public passage of a property tax in both Calcasieu and Cameron Parishes dedicated to maintaining the Channel. Public support for such a property has minimal support and very likely will fail if it is ever placed on the ballot. We do not believe that any LNG facility should be located north of Cameron LNG because documentation demonstrates that an environmental disaster of biblical proportion is possible and only continuing flawless mitigation may keep it from happening.

**FY18
CONSTRUCTION
WORK PLAN
\$0**

**"In the near future,
we will no longer be
able to dredge the
channel due to lack
of disposal
capacity!"**

U.S. Army Corps of Engineers quote at June HSC

LO1-10

7

LO1-9 Please see the response to comment LO1-4.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

20180914-3016 FERC PDF (Unofficial) 09/14/2018

Driftwood LNG Project, Draft Environmental Impact Statement
ES-20

As a cooperating agency, the USCG also assisted the FERC staff by reviewing the proposed LNG Facility and the associated LNG carrier traffic. The USCG reviewed a Waterway Suitability Assessment (WSA) submitted by DWLNG that focused on the navigation safety and maritime security aspects of LNG carrier transits along the affected waterway. On April 25, 2017, the USCG issued a Letter of Recommendation (LOR) to FERC staff indicating the Calcasieu Ship Channel would be considered suitable for accommodating the type and frequency of LNG marine traffic associated with the Project, based on the WSA and in accordance with the guidance in the USCG's Navigation and Vessel Inspection Circular (NVIC) 01-11. If the facility is authorized and constructed, the facility would be subject to the USCG's inspection and enforcement program to ensure compliance with the requirements of 33 CFR 105 and 33 CFR 127. FERC staff reviewed potential external impacts based on the site location and is conducting a technical review of the engineering design in conjunction with NEPA that would continue throughout final design and throughout the life of the facility. Based on our external impact analysis and preliminary evaluation of the engineering design, we conclude that the DWLNG LNG Facility's design would include acceptable layers of protection or safeguards that would reduce the risk of a potentially hazardous scenario from developing into an event that could impact the offsite public. Furthermore, the recommendations in section 5.2 would be provided to the Commission for consideration to incorporate as possible conditions to any authorization of the Project. These recommendations would be implemented prior to initial site preparation, prior to construction of final design, prior to commissioning, prior to introduction of hazardous fluids, prior to commencement of service, and throughout the life of the facility to enhance the reliability and safety of the facility and to mitigate the risk of impact on the public. We may also add additional recommendations for possible consideration to be incorporated in the order based on our ongoing review. The Pipeline and associated aboveground facilities would be constructed, operated, and maintained in compliance with DOT standards published in 49 CFR 192. These regulations are intended to minimize the potential for natural gas facility accidents and protect the public and environment. The DOT specifies material selection and qualification; minimum design requirements; and protection from internal, external, and atmospheric corrosion. We conclude that the Pipeline would have a small increase in the risk of a pipeline accident, however, this risk would be minimized based on compliance with DOT regulations. Therefore, the Pipeline would not have a significant impact on public safety.

Cumulative Impacts

As described throughout this draft EIS, constructing and operating the Project would have both temporary and permanent effects on the environment. Potential cumulative impacts were identified for the following resources: land use (within individual tracts); visual aesthetics; socioeconomic, including traffic and marine traffic; air quality (where pipeline construction occurs concurrently with other pipelines), and

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO1 - Atherton (Cont'd)

climate change.

The Driftwood LNG Facility, when considered with the existing Cameron LNG, existing Lake Charles LNG import terminal, approved Lake Charles LNG export terminal, and approved Magnolia LNG

Projects, would cumulatively contribute to impact on visual resources in the area. The primary existing receptors in the viewshed of the LNG Facility include residential areas, recreational areas associated with the Calcasieu River, and a portion of the Creole Nature Trail along Highway 27. Nighttime viewers of the LNG Facility would see lighting and occasional natural-gas flares. Once the LNG Facility was completed, the aesthetics would be consistent with other existing and proposed industrial developments along the Calcasieu Ship Channel, and although the LNG Facility represents an increase to visual impacts, especially

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Driftwood LNG Project, Draft Environmental Impact Statement

ES-21

to immediately neighboring residential areas, it would be consistent with the existing nature of the area and with planned projects in the area.

Other projects occurring within the cumulative impact area for socioeconomics include six FERC jurisdictional

projects, two pipeline projects, two energy projects, four industrial projects, nine transportation (including port and road improvement) projects, and 34 residential and commercial developments.

Traffic from other projects in the vicinity that occur within the same timeframe, when considered in combination with traffic from the Project, could further contribute to traffic congestion problems and increased traffic safety risks. The traffic volumes modeled in Driftwood's Traffic Impact

Study are based on future projections of existing traffic and therefore include traffic from existing industrial activities, including construction traffic for the Cameron LNG Project, which is anticipated to taper off during the first year of the construction schedule for the Project. Based on the proposed mitigation for existing and modeled traffic congestion included in Driftwood's Traffic Management Plan and the anticipated reduction

in traffic from other large projects, we conclude the Project would have minimal negative impact on road traffic and may improve area road traffic.

Cumulative marine traffic in the Calcasieu Ship Channel was assessed by an independent study, conducted for the Port of Lake Charles. Results of the study indicate that although vessel wait times may increase due to the Project, the ship channel has the capacity to accommodate this cumulative increase in vessel traffic, **provided that the channel is appropriately maintained.**

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APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LO2 - Atherton

F-11

ORIGINAL

FEDERAL ENERGY REGULATORY COMMISSION
DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC
DRIFTWOOD LNG PROJECT
(DOCKET NOS. CP17-117-000 AND CP17-118-000)

2 of 2

Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed¹.

Please send one copy referenced to Docket Nos. CP17-117-000 and CP17-118-000 to the addresses below.

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

LO2-1

COMMENTS: (PLEASE PRINT) *[attach an additional sheet if necessary]*

Charne Atherton I am providing hard copies of official documentation and public comments to FERC to be included in the public record as comments on the Driftwood Draft EIS.

Commentor's Name and Mailing Address *(Please Print)*

¹ The Commission encourages electronic filing of comments. See 18 Code of Federal Regulations 385.2001(a)(1)(ii) and the instructions on the Commission's Internet website at <http://www.ferc.gov> under the link to "Documents and Filings" and "eFiling." eFiling is a file attachment process and requires that you prepare your submission in the same manner as you would if filing on paper, and save it to a file on your hard drive. New eFiling users must first create an account by clicking on "Sign Up" or "eRegister." You will be asked to select the type of filing you are making. This filing is considered a "Comment on Filing." In addition, there is a "Quick Comment" option available, which is an easy method for interested persons to submit text only comments on a project. The Quick Comment User Guide can be viewed at <http://www.ferc.gov/docs/efiling/efiling-quick-comment-guide.pdf>. Quick Comment does not require a FERC eRegistration account; however, you will be asked to provide a valid email address. All comments submitted under either eFiling or the Quick Comment option are placed in the public record for the specified docket or project number(s).

LO2-1 Mr. Atherton's letter included attachments that are not directly related to the proposed Project. Those attachments can be viewed at the FERC website, www.ferc.gov, docket numbers CP17-117 and CP17-118, accession number 20181018-0015.

Landowner

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TRANSCRIPTS

TS1 - Kinder, LA, October 9, 2018

F-12

20181119-4004 FERC PDF (Unofficial) 11/19/2018	1
1 FEDERAL ENERGY REGULATORY COMMISSION	
2	
3 DRIFTWOOD LNG PROJECT	
4	
5 DOCKET NOS: CP17-117-000 AND	
6 CP17-118-000	
7	
8	
9 SCOPING MEETING	
10	
11 Koasati Pines Golf Club	
12 300 Koasati Drive	
13 Kinder, LA 70648	
14	
15 Tuesday, October 9, 2018	
16 5:00 p.m.	
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Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-13

20181119-4004 FERC PDF (Unofficial) 11/19/2018	2
1	SPEAKER LIST
2	
3	Neil Lejeune
4	Richard LeDoux
5	Michael Tritico
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Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-14

20181119-4004 FERC PDF (Unofficial) 11/19/2018		3
	1	P R O C E E D I N G S
	2	MR. LEJEUNE: My name is Neil Lejeune, N-e-i-l
	3	and L-e-j-e-u-n-e. One of my concerns is in that area that
	4	they're running the pipeline from Mile Marker 77 1/2 to 82
	5	or 82 1/2 -- it's coming across grounds that does not have
TS1-1	6	pipeline. They're not following a pipeline corridor and
	7	that's my big concern.
	8	There are alternative routes that they could
	9	follow that they would be in pipeline corridors where
	10	existing pipelines are already in place. And also, like on
	11	the piece of property I have, they're talking about putting
	12	in a valve section that goes from Texas Eastern to their new
TS1-2	13	pipeline.
	14	In changing the pipeline to a different location
	15	it would be next to existing valve connections that's
	16	already in place for Kinder Morgan and Texas Eastern. It
	17	does not -- I'm not getting it off of my land to put it on
	18	somebody else's land because if they run the alternative, it
	19	will be going through land that I either farm or own, so
	20	it's not like I'm trying to get it -- I'm just trying to
	21	keep it from passing through virgin ground or land that
	22	does not have pipelines through it.
	23	It just doesn't make -- it just doesn't seem
	24	right. I appreciate it.
	25	MR. LEDOUX: Richard LeDoux. My question is the

TS1-1 We have reviewed your comment and have determined an alternative in this location would not provide a significant environmental advantage, and therefore have not analyzed it further. Please see section 3.6 for an analysis of pipeline route alternatives. Text has been adjusted in section 3.6.2 to recognize this comment.

TS1-2 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-15

20181119-4004 FERC PDF (Unofficial) 11/19/2018

4

1 original pipeline right-of-way, I've got two or three copies
2 of it last year and this one and this one showed the
3 proposed route which was basically parallel. Tennessee Gas
4 and Cross Stake Line here which is the blue line and then I
5 got this map probably three or four months ago saying -- it
6 says current proposed route was the blue and then they added
7 this green to it. Well the green line here crosses this
8 bayou serpent, bayou serpent makes a big horseshoe right
9 here.

10 So if they take that green line, they've got to
11 cross this bayou serpent twice with that line and the bayou
12 is pretty deep and it's pretty wide and I think from an
13 environmental standpoint, why in the hell would you want to
14 cross that bayou twice, it's really big on both sides when
15 you can just go around it right here, on this 700 foot to go
16 around it between the bayou and this gravel pit right here.

17 Plus, a lot of this green right here on my pit,
18 which is on my property is a wetlands and big, big,
19 hardwood. I mean I'm talking about trees that have been
20 around 100 years old, I don't want all that knocked down for

21 no pipeline. You know when right here you've got three
22 pipelines right here and there's room for another one. Why

23 don't they go that route from an environmental standpoint I
24 think they'd be a lot better off going this way than this
25 blue line and this green line right here, that's my comment.

TS1-3 Bayou Serpent will be crossed using the HDD method, which is described in Section 2.5.3.1. This construction method minimizes impacts between the entry and exit points by boring underneath the surface feature. The site-specific construction plans for HDDs 5 and 6, which avoid disturbance to Bayou Serpent, are shown on figures 2.5-11 and 2.5-12.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-16

20181119-4004 FERC PDF (Unofficial) 11/19/2018

5

1 MR. TRITICO: My name is Michael Tritico,
2 M-i-c-h-a-e-l T-r-i-t-i-c-o. I live at 501 Good Eaux Road,
3 G-o-o-d E-a-u-x, Road, Longville, Louisiana 70652. I'm
4 representing RESTORE tonight. RESTORE is an acronym for
5 Restore Explicit Symmetry to our Ravaged Earth.

6 We started RESTORE back in 1974 and through the
7 years RESTORE has had a special interest in the Calcasieu
8 River Ecosystem. The river ties everything together from
9 way upstream in the Piney woods down through the prairie --
10 the dry prairie into the wet prairie which is called the
11 marsh, and then to the estuary, then to the offshore area
12 infringing in the freshwater part of the watershed, our
13 swamps, forested wetlands.

14 It's a beautiful system and we hate to see
15 anything that distorts it. All of these projects that are
16 going on and have been going on for 50 or 100 years distort
17 the ecosystem. Any one project might say well our impact is
18 insignificant, there are already so many impacts that one
19 more won't hurt.

20 I saw a lot of that kind of attitude, maybe not
21 quite so callously stated, in this particular EIS but the
22 attitude is there. Before I get into some of those things
23 that I'd like mention that this particular format for public
24 participation is inferior in my opinion to a format in which
25 all of the audience members get to hear each of the audience

TS1-4

TS1-4 Thank you for your comment.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-17

20181119-4004 FERC PDF (Unofficial) 11/19/2018		6
TS1-4	1	speakers -- anybody from the audience that gets up and
	2	speaks, the rest of the audience can learn from.
	3	It's an audience self-education process that is
	4	lost in this particular format because the people are
	5	separated into different parts of a big room. I'm here
	6	talking on to the court reporter and the other people that
	7	come to the meeting are way down the other end looking at
	8	documents and that sort of thing.
	9	So in the regular format a person could get up
	10	and say something and trigger a thought in one of the other
	11	participants -- one of the other audience members who could
	12	then contribute something that the first speaker hadn't even
	13	thought of, but that would be completely relevant and that's
	14	lost in this kind of format.
TS1-5	15	Getting back to the Draft EIS for Driftwood --
	16	they do have a dismissive attitude about the buy-out of the
	17	Calcasieu River. An example, and I plan to go into more
	18	detail in the meeting Thursday night so in my written
	19	comments that I'll send in before the deadline.
	20	There is a paragraph about the entrainment of
	21	millions of phytoplankton shrimp, crab larvae and there are
	22	other things that get entrained like foraged animal larvae
	23	and all of that is excused as not being significant because
	24	of the abundance of the existing group of those organisms.
	25	Now the idea is that even if it is abundance

TS1-5 Please see the response to comment number NG1-16.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-18

20181119-4004 FERC PDF (Unofficial) 11/19/2018		7
TS1-5	1	which it's not as abundant as it used to be by a longshot,
	2	but even if it is still abundant, the idea is not to chop
	3	into the abundance just because it's there, the idea is to
	4	keep it abundant, that you know the idea of we can go ahead
	5	and kill the rest of them because there's an abundance, that
	6	doesn't make sense to me.
	7	And also not making sense is the fact that
	8	another excuse for not worrying about the entrainment of
	9	millions and millions of these small organisms is that they
	10	die anyway -- the natural mortality is high. Well yes it's
	11	high and that's one reason why it's not good to add another
	12	devastating layer of death.
TS1-6	13	So I think this dismissive attitude -- that's
	14	just one example. Another one is how this document handles
	15	noise or doesn't handle noise. It talks about the animals
	16	are used to noise and besides that they can swim away from
	17	it. That is just a very shallow way of looking at something
	18	that's very significant.
	19	Water carries sound long-distances. The Venture
	20	Global information did a much, much better job of addressing
	21	the noise problems -- not only what the noise can do such as
	22	disturb animals 29 miles out into the Gulf from their
	23	particular location, or actually damage animals -- I think
	24	it was 6 miles away from where the piles were being driven.
	25	I mean they had calculations that fit with what

TS1-6 Please see the response to comment number NG1-7.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-19

20181119-4004 FERC PDF (Unofficial) 11/19/2018

8

TS1-6

1 we have seen with animals through the different research and
2 all the different publications -- animals in the aquatic
3 system are noise sensitive and they do not necessarily
4 tolerate any amount of noise that can be thrown in their
5 direction, it hurts them, it's not good.

6 The Venture Global people not only sensed what
7 could happen, they realized that there should be something
8 done to keep it from being as bad as it could be on the
9 calculations and so they proposed modifying the procedure
10 for the pile driving -- this company is going to drive
11 49,000 something piles.

12 Eventually -- I don't remember how many thousand
13 piles but they developed a procedure of gently alerting the
14 organisms that could swim away to go ahead and get moving
15 and gave them time to move a certain distance before they
16 increased the amplitude of the noise and they came up in
17 steps, giving the animals time to go and go away from the
18 noise.

19 Not only that, they modified their equipment -- I
20 mean this is all on paper so far they haven't really built
21 it and they haven't done it yet but they have a plan to
22 modify the pile-driving equipment such that the blows
23 pushing it.

24 And this is thinking -- this is actually people
25 saying okay, what am I going to do and what can I do better?

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

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20181119-4004 FERC PDF (Unofficial) 11/19/2018

9

1 You know, I'm not working for Venture Global, but I'm trying
2 to say that different environmental assessments,
3 Environmental Impact Statements, show the personalities of
4 the companies and this particular company, Driftwood, seems
5 to be -- I don't know, I don't know how to describe it
6 except maybe a track runner jumping over hurdles that
7 things he's the fastest and has really not been over the
8 hurdles, instead of clearing them.

9 Just because he's ahead of two or three guys
10 doesn't mean that he's the best hurdler. This noise
11 problem, there's a particular animal that one of the
12 Louisiana Wildlife and Fisheries agents has sort of adopted,
13 he put telemetry apparatus on some of the paddle fish --
14 it's a fish that lives in the freshwater part of the
15 Calcasieu ecosystem, but it migrates.

16 Paddle fish -- P-a-d-d-l-e f-i-s-h, I don't
17 remember the scientific name right now but it's a type of
18 catfish. The biologists who are in the fisheries tracks the
19 movements of these, this small population of paddle fish
20 that is diminishing because of habitat loss and adverse
21 impacts.

22 I don't know that he has any way of knowing how
23 much of an impact noise has or turbidity has but the fact
24 that the paddle fish are part of the natural system and that
25 they're diminishing, is another reason not to be dismissive

TS1-7

TS1-7

Based on Louisiana Department of Fish and Wildlife database, paddlefish are currently known to occur in the Mississippi and Missouri river drainages, which are approximately 130 miles east of the LNG Facility. According to NatureServe, paddlefish are known to occur in Calcasieu Parish within the Upper Calcasieu (08080203) and West Fork Calcasieu (08080205) watershed (<http://explorer.natureserve.org/servlet/NatureServe?searchName=Polyodon%20spathula>). The LNG Facility is located within the Calcasieu River/Prien Lake (08080206) watershed, which is outside of the current range and distribution of the species. Therefore, we conclude the LNG Facility will have no significant impact on paddlefish.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-21

20181119-4004 FERC PDF (Unofficial) 11/19/2018

10

1 about things that are there.

2 I mean the fact that they're still there doesn't
3 mean that we should take the chance on losing one or two or
4 ten of them. We should try to save all of them. The idea

TS1-7 5 of different ways of handling adverse impacts again the
6 dismissive attitude of this company on turbidity and
7 dredging is sort of like, well everybody's doing it, we're
8 not going to be any different, we're going to do it and
9 we're going to use a cutter hedge dredge and that's the best
10 way to keep the turbidity from being out of hand.

11 Well, they don't use the word, it doesn't phrase
12 out of hand but any turbidity is nearly unnatural. Every
TS1-8 13 now and then there might have been mud flows and things when
14 we'd have a huge rainstorm, but what happens now with the
15 constant dredging that people are doing is indefinite
16 interference with migratory pulses.

17 Usually I did a migratory clock -- I did that in
18 1977 and it shows that there are three major times during
19 the year, each lasting about a month and a half and during
20 those three intervals, all sorts of organisms, both larvae
21 and juvenile and adult of fish and crabs and squid and
22 shrimp move.

23 Some are moving inshore from the Gulf and some
24 are moving out of the marshes into the channel and some are
25 moving from the channel into the marshes and it's a dynamic

TS1-8 Section 4.3.3.2 discusses the existing background turbidity in the Calcasieu Ship Channel.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-22

20181119-4004 FERC PDF (Unofficial) 11/19/2018

11

1 system keyed in to the sky, the celestial timing, the
2 equinoxes, the solstices, the full moons and the weather --
3 the cold fronts, and it's all well planned and the organisms
4 are deeply programed to expect certain things at certain
5 times of year and to do certain things that are part of
6 their lifecycles and if something disrupts it then they're
7 doomed.

8 I'll bring a migratory clock to Thursday night's
9 meeting. There's one other thing I wanted to go ahead and
10 get into the record because and she told me I should do that
11 and that is that there was a landowner that I know between
12 Mile Post 22 and 23 who did not make it into the table, that
13 lists the landowner contacts in which problems were divulged
14 to the company when my friend at Willow Springs told me that

TS1-9 15 he spoke to the land man at his ranch and told him he was
16 not too happy with the idea of the pipeline dissecting his
17 pasture.

18 And I thought I would find it in the table but I
19 did not find it so it's an omission. I'm hoping that my
20 friend will come to the Sulphur Meeting Thursday night and I
21 guess that would use up my three minutes.

22 (Whereupon at 6:45 p.m., the meeting was
23 adjourned.)

24

25

TS1-9 Thank you for your comment. The landowner at this location has not provided a comment to us.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS1 - Kinder, LA, October 9, 2018 (Cont'd)

F-23

20181119-4004 FERC PDF (Unofficial) 11/19/2018	12
1	CERTIFICATE OF OFFICIAL REPORTER
2	
3	This is to certify that the attached proceeding
4	before the FEDERAL ENERGY REGULATORY COMMISSION in the
5	Matter of:
6	Name of Proceeding: Driftwood LNG Project
7	
8	
9	
10	
11	
12	
13	
14	
15	Docket No.: CP17-117-000 & CP17-118-000
16	Place: Kinder, LA
17	Date: Tuesday, October 9, 2018
18	were held as herein appears, and that this is the original
19	transcript thereof for the file of the Federal Energy
20	Regulatory Commission, and is a full correct transcription
21	of the proceedings.
22	
23	
24	Larry Flowers
25	Official Reporter

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018

F-24

20181119-4006 FERC PDF (Unofficial) 11/19/2018	1
1 FEDERAL ENERGY REGULATORY COMMISSION	
2	
3 DRIFTWOOD LNG PROJECT	
4	
5 DOCKET NOS: CP17-117-000 AND	
6 CP17-118-000	
7	
8	
9	
10 SCOPING MEETING	
11 West Cal Event Center	
12 401 Arena Road	
13 Sulphur, LA 70665	
14 Thursday, October 11, 2018	
15 5:00 p.m.	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

F-25

20181119-4006 FERC PDF (Unofficial) 11/19/2018		2
1	SPEAKER LIST	
2	William Verdice Jackson	
3	Lynn Hohensee	
4	Jon Manns	
5	Richard B. Smith	
6	Ernest Broussard	
7	David Devall	
8	Michael Tritico	
9	Blake Brignac	
10	Bruce Mulvey	
11	Lena McArthur	
12	Charlie Atherton	
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

20181119-4006 PERC PDF (Unofficial) 11/19/2018

3

1 P R O C E E D I N G S

2 MR. JACKSON: William, W-i-l-l-i-a-m Verdice,

3 V-e-r-d-i-c-e Jackson, J-a-c-k-s-o-n. I got deer, actually
4 some deer, I own 40 acres of it and cattle. Just - one, I

TS2-1

5 got I don't know four forty's and there are five forty's,
6 but it's no big deal.

7 Yeah, yeah I just have to -- a donkey and a
8 horse, I'd like to wrap them both out.

9 MR. HOHENSEE: My name is Lynn Hohensee, first

10 name is spelled L-y-n-n last name is spelled

11 H-o-h-e-n-s-e-e. I'm a resident of Calcasieu Parish. I

12 also service as a Port Director for the West Calcasieu Port,
13 which is approximately 2 and 1/2 - 3 miles from the site of
14 the Driftwood Project.

15 I also serve as Port Director for the Port of

TS2-2

16 Venice which is about 12 miles from the location and I'm
17 speaking on behalf of myself and that is I'm very supportive
18 of this project. We're talking about a project that's
19 bringing over 15 billion dollars of investment into our
20 community.

21 We realize construction segment is going to be
22 probably more than about 6,000 construction jobs and when
23 the project is finished that's 400 permanent jobs and that's
24 something that every community in this country would love to
25 have that kind of a situation.

TS2-1 Thank you for your comment.

TS2-2 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

F-27

20181119-4006 FERC PDF (Unofficial) 11/19/2018

4

1 The other thing is what we've seen so far at
2 Tellurian is that they have demonstrated a very strong
3 community partnership and I think this is intended to
4 continue on, not only pre-construction but during
5 construction and after the project is up and operating.

6 The other thing I'd like to look at is I've had a
7 chance to talk to some of the Tellurian people and see some
8 of their paperwork -- safety and responsible environmental
9 impact on their part is a very high priority and I think
10 that their intent is to be a good neighbor, a clean
11 neighbor, one that's going to absolutely contribute to our
12 community and our economy, they're going to create jobs,
13 they're going to expand our tax base and they're going to
14 bring in capital investment.

15 These are three very good metrics that we look
16 forward to seeing happen with the Driftwood Project when the
17 time comes that the federal government gives them the green
18 light to go ahead. I'm absolutely very supportive of it,
19 thank you.

20 MR. MANNNS: My name is John Manns, J-o-n
21 M-a-n-n-s. I live in Lake Charles and my association I'm
22 Board Chair for the Community Foundation of Southwest
23 Louisiana, okay.

24 Okay, I'm retired from a 40 year career in the
25 chemical industry but my main focus right now is the

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 PERC PDF (Unofficial) 11/19/2018

5

1 Community Foundation and our focus as a Community Foundation
2 is to continue and identify and drive things that improve
3 our community in the five parish areas in southwest
4 Louisiana.

5 One of the key ways to drive improvements in the
6 community is to continue to improve and create a very
7 attractive business environment here so that ultimately we
8 continue to increase and provide as many good paying jobs
9 for the people in our community as much as possible and so
10 we're very much aligned.

TS2-3

11 The things that we're interested in improving the
12 community are very much aligned with industry -- both heavy
13 industry and/or local businesses and I do know that through
14 my experience that the leadership at Tellurian are very
15 professional, responsible leaders and we're very interested
16 in them being in this area to again be good community
17 citizens and provide good jobs to our citizens here, okay.

18 MR. SMITH: My name is Richard, R-i-c-h-a-r-d B.

19 Smith, S-m-i-t-h. Well I'm here this afternoon because I
20 would like to speak in favor of our friends with Driftwood
21 LNG of receiving their permits to proceed with their project
22 because they have shown through their leadership and through
23 their community involvement that they're a reputable firm
24 with a good plan of work and they were locating here in what
25 we hope will be a very favorable energy sector development

TS2-4

TS2-3 Thank you for your comment.

TS2-4 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

F-29

20181119-4006 FERC PDF (Unofficial) 11/19/2018	
6	
TS2-4	1 for us with LNG export which we're familiar with the LNG 2 business. 3 This will create about 6,500 construction jobs, 4 about 400 permanent jobs as we appreciate it which will help 5 with the economy of Southwest Louisiana, sustained into the 6 future and we're very pleased to have these kinds of TS2-5 7 projects come to our community and we are looking forward to 8 working with our friends at Driftwood to be able to see this 9 project through provided they receive the approvals that 10 they need from FERC and the other government agencies 11 involved. 12 It's been a real pleasure working with them so 13 far and we look forward to working with them in the future. 14 15 MR. BROUSSARD: Ernest Broussard, E-r-n-e-s-t and 16 that's B-r-o-u-s-s-a-r-d. My name is Ernie Broussard and 17 I've had the occasion to be in this area in planning and 18 economic development of public policy for 40 years. 19 And I had worked with this team in Cameron, 20 Louisiana when I was Port Director and throughout. I'm 21 currently an engineering consultant but I wanted to just 22 comment that the complexion of this project - its economic TS2-6 23 impact, job creation and its effect on the community has 24 been looked at and we cannot think of a more positive 25 project that would affect the diversity and the internal

TS2-5 Thank you for your comment.

TS2-6 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

F-30

20181119-4006 FERC PDF (Unofficial) 11/19/2018		7
TS2-6	1	strength of this region as Tellurian.
	2	And as a planner, I deal in multiplier and
	3	escalator clauses, but the bottom line on its face this
TS2-7	4	project will represent a -- represents a significant
	5	increase into the LNG theatre and quite frankly, improves
	6	both Cameron and Calcasieu Parish community -- jobs,
	7	housing, overall quality of life.
	8	One more thing, we've actually looked at I dare
	9	say by my nature I've looked at the community impacts on
	10	this, from both a society economic and an environmental
TS2-8	11	standpoint. She is environmentally friendly, it is
	12	responsive for the port and the maritime community but
	13	again, at its core it creates a critical mass to help
	14	diversify the super redeemer in more ways than one, so I
	15	just wanted to get that on the record.
	16	MR. DEVAL: David Devall, last name is
TS2-9	17	De-v-a-l-l. I think the impact of the Tellurian Driftwood
	18	Project in our area will provide great economic value to the
	19	area. As a business owner that is neighbors with Tellurian
	20	Driftwood, we see the impact of hiring additional employees,
	21	probably anywhere from 50 to 75 additional employees.
	22	We're in the marine transportation business and
	23	we can provide many services to the Tellurian Driftwood
	24	Project and also to the Tellurian Driftwood Project, not
	25	just in the construction phase but in the long-term phase as

TS2-7

Thank you for your comment.

TS2-8

Thank you for your comment.

TS2-9

Thank you for your comment.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018

8

1 well.

TS2-10

2 The LNG that they're going to provide is what we
3 see and being in the business since 1952 -- our family, not
4 me, the environmental impact of LNG being the new wave of
5 the future with fuel efficiencies and cleaner air, so being
6 an advocate for new waterway business in the Lake Charles
7 Harbor is very beneficial to the entire economy in the
8 Calcasieu and even Cameron, but more so Calcasieu Parish
9 areas.

TS2-10 Thank you for your comment.

TS2-11

10 So I see no negative reasons why Tellurian
11 Driftwood wouldn't -- couldn't go forward with this project
12 and I think the project is going to be very impactful in
13 positive ways for many folks, not only the short-term but in
14 the long-term.

TS2-11 Thank you for your comment.

15 MR. TRITICO: My name is Michael Tritico,
16 M-i-c-h-a-e-l T-r-i-t-i-c-o, okay and Michael Tritico and
17 I'm the founder of a group called RESTORE, and RESTORE
18 stands for Restore Explicit Symmetry to Our Ravaged Earth
19 which means put it back the way the Creator made it because
20 it had it right.

21 I am going to testify tonight and send in
22 comments later by the deadline -- detailed comments for
23 RESTORE. I have given you a draft outline of the comments I
24 was going to try to do orally tonight but I'm not feeling
25 well, so I'm just going to try to hit the high points, the

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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9

1 topics and let the written outline give details that I'm not
2 up to giving you tonight.

3 Alright, my address is P.O. Box 233 Longville,
4 Louisiana. I grew up in Lake Charles and RESTORE had made a
5 many decades-long commitment to try to do what we can to the
6 river and the river ecosystem, that's our main thing is an
7 environmental group except in this particular case there's
8 an overriding concern and that is the possibility of people
9 getting burned by a big fire.

10 The information that we have is that up to seven
11 miles away if this thing has a problem and it escalates into
12 a catastrophe, people could be burned up to seven miles
13 away. That's our main concern with each of the LNG
14 facilities.

15 This particular one has a residence 200 feet away
16 and 200 feet is pretty close in case of a fire even if it
17 stays within the property boundaries of the facility. Also,
18 there are several neighborhoods within that seven miles like
19 Carlyss and part of Sulphur and Big Lake Community.

20 And then there's the Big Lake Community on the
21 other side of the river and the Greywood Community on the
22 other side of the river, they're all within that seven mile
23 or less radius. And it's a lot of people in other words,
24 that if it had a catastrophe they would get burned and
25 that's the main concern.

TS2-12

TS2-12 Please see the response to comment NG1-3.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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1 Another concern is the noise. 48,000 piles to be
2 driven in 600 days -- that's a lot of piles each day and
3 even though it's dawn to dusk, that disrupts the people who
4 live nearby for 600 days and then the other construction--
5 the whole thing is going to take seven years, that's along
6 time to be disrupted.

TS2-13 7 As far as sound in the water, it's going to
8 affect the animals, that's why I would like for FERC to put
9 side-by-side the other Environmental Impact Statement that
10 they have from a different company which is downstream and
11 that company calculated that it would -- if they didn't do
12 something about their pile driving the noise from that would
13 affect animals 29 miles away in the water.

14 And that six miles away it could damage the
15 animals. Now the precedent that was set by Driftwood in not
16 doing its own computer modeling for air pollution was
17 approved by FERC, they used the same information. That
18 precedent should allow FERC to use the other company -- the
19 other LNG company information and calculations on sound
TS2-14 20 damage to animals and people.

21 I mean if it's okay for Driftwood to say we
22 didn't have to do any computer modeling on air pollution
23 because somebody else already did it, the same logic should
24 have to apply on sound and sound damages and mitigations.

TS2-15 25 Now the other company has designed a different

TS2-13 We understand that the pile driving has the potential for great disturbance for local residents. Therefore, we have included recommendations limiting noise from the activity and limited pile driving to occur only between 7:00 a.m. and 7:00 p.m. (see section 4.12.2.2).

With regard to aquatic life, Driftwood's location on an inland waterway reduces the distance that sound waves could travel through the water. We determined that the level of analysis you indicate is not required due to the constrained waterway. At open-water areas near the ocean the noise impacts could travel very far with minimal bottom reflection or other obstructions. Within a heavily traveled, constrained environment, such as a ship channel (where Driftwood is located), noise impacts and distance would be significantly less due to reflections from river/channel bottoms, and upstream by waterbody flow (sections 4.4.3.1 and 4.12.2).

TS2-14 Please see the response to comment TS2-13.

TS2-15 Please see the response to comment TS2-13.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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TS2-15 1 way of doing their pilings and that should be required for
2 Driftwood also. That same FERC EIS which is the one from
3 the other company is EIS-0278D is so superior to the FERC
4 one that it should be used on every issue because most of
5 the issues are the same.

6 I want to put in the record that there's a
7 baseline ecological study for the Calcasieu River System
8 that's a very rare thing to have some baseline from the
9 transfer from the 18th to the 19th Century, the Gulf
10 biologic station at Cameron was a pioneering ecological
11 research station that did ten years-worth of work and
12 publications and the hurricane took them, but the
13 information is available in the Berkeley Library in
TS2-16 14 California, part of it in Tulane and part of it in LSU,
15 Baton Rouge.

16 We had got complete copies and put them in the
17 Cameron Library which blew away in Rita -- Hurricane Rita.
18 We did put a copy in the Manganese Archives but that
19 building got damaged during Hurricane Rita so somebody might
20 have to do some more ground work or leg work like we did and
21 get a complete copy but I think that having a baseline
22 cannot be ignored.

23 You can't say well we don't know how to restore
24 this place because we don't know what it used to be like.
25 Well we do. It was a providential thing that we have a

TS2-16 Please see the response to comment TS2-13.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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TS2-16 1 baseline ten years-worth of work.

2 This idea of we can't change it we have to keep
3 the ship channel, we don't know what it was like before the
4 ship channel. It was a dimwitted idea, digging a deep ship
5 channel -- they're talking about how foresighted it was and
6 the pioneering business guys and all, it was dimwitted.

7 It has ruined the ecological balance of the
8 Calcasieu River ecosystem. Mr. Musser, one of the old
9 pioneering rice farmers upstream finally got a saltwater
10 barrier built north of Lake Charles to keep the saltwater
11 from going upstream and ruining his rice crop.

12 They used the river for irrigation and it had
13 burned up his crop. It also burned up all the Cypress
14 Swamps and it burned up the marshes that were freshwater
15 almost all the way to the Cheniere Ridge down in Cameron.
16 It burned up everything and replaced it with a dying
17 intermediate kind of system. And it's still dying and it's
18 still messing it up and they keep dredging it deeper and
19 deeper, which is ridiculous -- more dimwits, okay?

20 I have tried for years to try to at least get the
21 dredging stopped. It creates a tremendous stress on the
22 animals -- the turbidity, the deepening and all of that is
23 just not right. So I did a migratory clock, c-l-o-c-k and
24 the reason I'm spelling it for you is because at the last
25 meeting down in Cameron, the DEQ meeting, the court reporter

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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1 spelled it p-l-o-t. I don't think she had her ears on.

2 Well I mean she had ears but I think she was
3 listening to I don't know what, hip-hop music or something,
4 she got it wrong and that was not the only thing she got
5 wrong, she got about six or eight things wrong which made my
6 comments look stupid. I'm hoping this doesn't happen again.

7 That migratory clock shows three pulses per year
8 of migrations. I mean they're migrations constantly but
9 there are three major pulses -- dredging during that time is
TS2-17 10 bad, releasing hazardous waste like this dredging might do
11 since there is a known hazardous waste site there, that's
12 another reason to use a migratory clock to time the dredging
13 or any kind of impact between the pulses.

14 Okay let me just hit the high points -- ballast
15 water, the other company has a much better plan for handling
16 ballast water than this company does. It's -- there is no
17 plan for this one. 15 million gallons a day of strange
18 water -- who knows where they got it, it could have been in
TS2-18 19 some polluted estuary in Kenya or somewhere, they don't have
20 an ocean do they?

21 Well anyway, the idea of 15 million gallons of
22 ballast water being dumped into the river every day -- one
23 ship per day, 15 million gallons of strange water that is
24 not acceptable. Another thing is that every ship is going
TS2-19 25 to be -- once it's parked, it needs to cool its engines and

TS2-17 Please see the response to comment NG1-12.

TS2-18 Please see the response to comment NG1-14.

TS2-19 Please see the response to comment NG1-15.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		14
TS2-19	1	generators and all that stuff and so how does it cool it --
	2	it draws the river water in and when they do that they will
	3	take in 20,000 larvae and shrimp, that's entrainment, that's
	4	a bad idea.
TS2-20	5	The excuse given for not worrying about the
	6	migratory bird habitat along the pipeline is ridiculous.
	7	They said that they'll just find somewhere else to live.
	8	Now how in the world is that consistent with sincere
	9	environmental impact assessment?
	10	The birds will find somewhere else to live.
	11	Okay, well if we're going to say that we might as well as
	12	the humans can find somewhere else to live too, goodbye --
	13	anyway the pipeline that is involved here is 98 miles and
	14	crosses 88 permanent water bodies and 317 water bodies
	15	altogether and it affects 94% as much wetland acreage as the
	16	bayou bridge pipeline which is being protested.
	17	The Driftwood Pipeline is under the radar of the
	18	protestors so far but that could change. The landowner who
	19	I had hoped would be here tonight -- we had a mix-up of
	20	where to meet, his phone and my phone are both out and I
TS2-21	21	tried to find him and I didn't.
	22	His name is Herbert Rigmaiden, H-e-r-b-e-r-t
	23	Rigmaiden, R-i-g-m-a-i-d-e-n and his property is between
	24	Mile Post 22 and 23. I looked at the diagram a while ago
	25	and I didn't write down the diagram number but if you go on

TS2-20 Please see the response to comment NG1-17.

TS2-21 Please see the response to comment TS1-9.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		15
TS2-21	1	the diagrams and look for 22 and 23 you'll see a pipeline
	2	going through a beautiful pasture and that's what he's upset
	3	about, alright.
TS2-22	4	275,000 horsepower -- that's impressive, 6 pig
	5	launchers, I have never seen anything about launching pigs
	6	in an EIS. I was impressed. Anyway, I could tell you a
	7	story about pigs but we have people waiting -- using 360,000
	8	gallons a day of municipal water -- I don't know if the
	9	local water district can handle that kind of stress for
TS2-23	10	seven years.
	11	After seven years it will be back down to only
TS2-23	12	260,000 gallons a day. You need to talk to the water
	13	district, I don't think that's going to fly. And the last
	14	thought about water -- Hurricane Michael's storm surged just
	15	yesterday. This site would have been devastated. The storm
	16	surge would have easily filled up the levee, shorted out the
	17	refrigeration and we could have had a big fire -- a
	18	catastrophe.
	19	This is not acceptable to what the plan is. We
	20	know from this launch model that NOAA put out years ago that
	21	there could be 27 feet of seawater at Interstate 10 and
	22	Sulphur in a Michael-style storm. That's all I am going to
	23	say today but I do hope to put in written comments with more
	24	details later.
	25	MR. BRIGNAC: My name is Blake Brignac,,

TS2-21 Please see the response to comment TS1-9.

TS2-22 Please see the response to comment NG1-21.

TS2-23 Please see the response to comment NG1-22.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		16
TS2-24	1	B-l-a-k-e Brignac is B-r-i-g-n-a-c. So I'm the President of
	2	Fusion 5 which is the Young Professional Organization here
	3	in Southwest Louisiana, so I'm here to state that we stand
	4	in favor of Tellurian Driftwood LNG Project.
	5	Fusion 5 is the Young Professional Organization
	6	that makes a positive impact on Southwest Louisiana by
	7	exchanging ideas, developing our members, leading the
	8	community and creating a better place to live in in the
	9	Southwest Louisiana area. So our mission is to cultivate a
	10	positive impact on Southwest Louisiana by connecting and
	11	engaging young professionals in regional opportunities for
	12	civil engagement, professional development and personal
	13	growth.
	14	Tellurian has helped this mission by
	15	demonstrating itself to be a strong community and partner by
	16	positively impacting the Southwest Louisiana Region, via
	17	specific engagement so they have donated over \$200,000 to
	18	the local community via non-profit organizations,
	19	foundations and schools here in Southwest Louisiana.
	20	They have actively engaged in our community to
	21	understand about to better help the community understand LNG
	22	industry and have updated the community on specifically the
	23	Driftwood LNG Project, via newsletters, full page ads in the
	24	commercial paper, the local paper, e-newsletters or direct
	25	mail-outs.

TS2-24 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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17

1 They have also done neighborhood meet and greets
2 and hosted residents in their neighborhoods in the Carlos,
3 Sulphur, just in general Southwest Louisiana area. They
4 have also hosted numerous speaking engagements including a
5 -- what is LNG breakfast with Fusion 5 earlier this year.
6 This luncheon was just as the name announced it
7 provided the definition of liquefied natural gas, what it
8 is, what exactly is the liquefied natural gas in Southwest
9 Louisiana and how it impacts our nation and our world
10 globally, the pros and cons of all the above.

11 The professional development that Tellurian
12 Driftwood LNG has announced here in Southwest Louisiana
TS2-25 13 community stands to further diversify, improve our standard
14 of living here in Southwestern Louisiana and the facility
15 represents an investment of over 15 billion. There are
16 thousands of jobs that will be created, approximately 6,500
17 in the construction phase of the project and about 400 new
18 permanent jobs when the plant is operational and that's from
19 several different salaried paid positions.

20 The community will benefit from tax revenue over
21 the life of the facility and result in increased revenue to
22 local services such as restaurants, hotels, local businesses
TS2-26 23 and all the above, so again the Fusion 5, the Young
24 Professional Organization of Southwest Louisiana stands
25 behind and in favor of the Tellurian Driftwood LNG Project

TS2-25 Thank you for your comment.

TS2-26 Thank you for your comment.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		18
TS2-26	1 and that's it.	
	2 MR. MULVEY: My name is Bruce Mulvey,	
	3 M-u-l-v-e-y. Essentially we live on Driftwood Road which is	
	4 as the crow flies, less than a mile from the project site.	
	5 My wife and I sold our house in Lake Charles, Louisiana and	
	6 moved to this site as it was our lake house, our fishing	
	7 camp so to speak, but we did so in light of Driftwood at	
	8 that time, later Tellurian, giving us assurances that the	
	9 site would be a contained site that would be within a	
	10 footprint that would not exceed the basically the drift --	
	11 the Burton Shipyard Lane to the end.	
	12 And having had a ship building site there before	
	13 and having had a global pipeline company there before, and	
	14 with the provision that the woods directly across from us --	
TS2-27	15 directly to the east of us would be maintained as a buffer	
	16 zone, we supported the project as we see that it is a	
	17 strategic asset of the United States for the long-term and	
	18 that we are pro LNG from our part of the country and that it	
	19 would not put a huge plant across from us.	
	20 We were told that the noise levels would be	
	21 around 55 decibels, we were explained what that would be and	
TS2-28	22 we accept that and with that in place we think we're for it,	
	23 for the jobs that it will provide in the future of	
	24 Louisiana, the coastal protection -- if those assets are	
	25 there then certainly they need to protect the coast which	

TS2-27 Thank you for your comment.

TS2-28 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 PERC PDF (Unofficial) 11/19/2018		19
TS2-28	1	the federal government has not done up until that point.
	2	And so for all those reasons we are in favor of
	3	the project and we hope that it gets approved.
TS2-29	4	MS. MACARTHUR: My name is Lena McArthur spelled
	5	L-e-n-a last name McArthur, M-c-A-r-t-h-u-r. I am the
	6	Executive Director of the West Calcasieu Chamber of
	7	Commerce. I'm a little bit familiar with the Driftwood
	8	Project -- I think it's great for our economy and for this
	9	to come to our area.
	10	I've been watching the process from ground up,
	11	we're staying up to date and not necessarily watching
	12	everything but I'm hearing a lot of feedback from the
	13	community, a good feedback that they're interested in what
TS2-30	14	the pipelines have to offer to our area and so I'm excited
	15	for our industry and the economic growth that it's going to
	16	bring to this area.
	17	And so I'm pretty familiar with pipelines because
	18	I'm a family from pipeline people so I guess that's it.
	19	MR. ATHERTON: My name is Charlie Atherton,
	20	A-t-h-e-r-t-o-n, 122 Vine Street, Sulphur, Louisiana 70663,
	21	and my phone number is 337-661-6039. I want to make a few
	22	verbal comments.
	23	Last week in the American Press Tellurian
	24	Driftwood ran full page ads of PR relative to Driftwood and
	25	Tellurian but they did not mention at all that this meeting

TS2-29 Thank you for your comment.

TS2-30 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		20
TS2-30	1	tonight would be going on, that there was a public meeting
	2	where people could come and voice their concerns, especially
	3	with a court reporter, to document their concerns on the
	4	Draft EIS.
	5	So they -- all throughout the process it appears
	6	they have followed the letter of the law but not the intent
	7	of the law relative to the pipeline that will be crossing my
	8	property. That whole process has been flawed from the
	9	beginning as I've documented in the past that there's
	10	basically no paper trail or no way to prove that anybody has
	11	ever talked to me or has not talked to me and it has just
	12	been the process seems to do nothing but confuse property
	13	owners and keep them off balance.
TS2-31	14	I'm not impressed with the pipeline right-of-way
	15	process at all. And nothing seems to work in favor of the
	16	landowner. One of the goals that -- and reasons that I'm so
	17	interested in having my comments on the record is that I am
	18	firmly convinced and I've provided FERC with documentation
	19	in the past that there will be a disaster of Biblical
	20	proportions on the ship channel at the Cameron LNG docks
	21	because the Coast Guard failed to do their job responsibly.
	22	So I want to make sure that every opportunity I
	23	have that I have the full documentation of what I believe is
	24	going -- along with others is going to happen so that the
	25	survivors will have some recourse in trying to put their

TS2-31 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		21
	1 lives back together.	
	2 Now relative to the this particular Draft EIS	
	3 that we're here for tonight, we do not believe that FERChas	
	4 fulfilled its responsibility in following the intent ofthe	
	5 law, and I intend that FERC has not fully responsiblyand	
	6 meaningfully addressed all of the issues the public	
TS2-32	7 documented in previous FERC meetings.	
	8 Well and all the public has to do is read the	
	9 first words of the FERC regulatory process to say that FERC	
	10 can't delegate or pass on the responsibility of	
	11 environmental safety or negative community impacts to the	
	12 Coast Guard, Army Corp, Department of Transportation or	
	13 anyone else.	
	14 FERC is required to consider all community	
	15 negative impacts and not only document at Driftwood LNG Ship	
	16 Navigation hazards, known potentials for environmental	
	17 disasters all along the Driftwood LNG ship channel	
	18 navigation route from the Gulf of Mexico to Driftwood's	
TS2-33	19 proposed LNG site location and back out to the Gulf of	
	20 Mexico.	
	21 FERC cannot only consider just the physical real	
	22 estate site itself, but FERC has to consider the LNG ships	
	23 transportation route and not set up the public forpotential	
	24 disasters.	
TS2-34	25 We believe this particular EIS that the Coast	

TS2-32 The responsibilities of each agency, as applied to the LNG Facility, are discussed in section 4.13.1

TS2-33 LNG shipping began almost 60 years ago, and while some groundings, allisions, and collisions have occurred, no known incidents have resulted in a breach of the LNG cargo tanks, which are surrounded by the ship hull and insulation layering. Figure 4.13-2 in the EIS shows the potential extent of hazards due to accidental and intentional disruptive incidents to a loaded (outbound) LNG vessel along the LNG vessel route. The outer perimeter of Zone 3 (NVIC 01-2011, "Zones of Concern") equates to the vapor cloud dispersion distance to the lower flammability limit from a worst case un-ignited release. However, for the largest intentional zone, page 53 of the Sandia National Laboratories Report SAND2004-6258 states, "the potential for a large vapor dispersion from an intentional breach is highly unlikely." This is true, not only because risk reduction techniques would be applied by the USCG to protect the LNG marine carrier, but because any intentional act that would have enough energy to breach the cargo tank would also be expected to quickly ignite the LNG vapor, which would then burn near the pool source and not disperse. FERC, DOT, and USCG require emergency response plans that are coordinated with appropriate federal, state, and local officials. These plans would include an emergency evacuation plan of the surrounding public in the event of an emergency, including the unlikely catastrophic failure of an LNG storage tank and emergency response needs along the entire ship route. As noted in section 4.13.1.6, public notification and evacuation routes should be available to the public. Also, please see the response to comment NG1-3.

TS2-34 The USCG is a cooperating agency in the preparation of the EIS. They have reviewed the document to ensure it is an accurate characterization of their process and findings. In addition, all LNG

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APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018		22
TS2-34	1	Guard's participation and response in this Draft
	2	Environmental Impact Statement of 9/14/18 in our opinion is
	3	not an accurate account of their past actions and past
	4	actions were driven by politics in fast-tracking what is now
	5	the Cameron LNG permitting process, as we have attempted to
	6	document in our comments.
	7	The Calcasieu River Waterway Harbor Safety
	8	Committee Meeting of October the 9th of '18 the presentation
	9	by the river policy is the state senator stated that the
	10	Calcasieu ship channel will cease to be functional in the
TS2-35	11	near future without the public passage of a property tax in
	12	both Calcasieu and Cameron Parishes dedicated to
	13	maintaining the channel.
	14	Public support for such a property tax has been
	15	minimal support and very likely will fail if it's ever
	16	placed on the ballot. If you do not believe that any LNG
	17	facilities should be located north of Cameron LNG's because
	18	documentation demonstrates that an environmental disaster of
	19	Biblical proportions is possible and only continued and
	20	flawless mitigation may keep it from happening.
	21	Also of concern is the recent failure of the
	22	Cheniere storage sites and so we do not believe that this
	23	Draft EIS 9/14/18 responsibly addresses the Driftwood
	24	storage tanks public safety issues and emergency response.
	25	And the recent storage tanks issues at Cheniere has made the

TS2-34 (Cont'd) terminals subject to Coast Guard jurisdiction must adhere to the regulatory requirements in 33 CFR 127 and 33 CFR 105, which are described and include a waterway suitability assessment that assesses the safety and security of the waterway. Also, please see the response to comments LO1-4 and LO1-5.

TS2-35 Section 4.13.1 of the EIS describes LNG facility historical records for major incidents. We note that the operating history of the U.S. LNG industry has been free of incidents resulting in safety impacts to the public or the environment with the exception of the October 20, 1944, failure at an LNG plant in Cleveland, Ohio, which was not subject to the same regulatory oversight. The recent issues at the Cheniere site did not result in a public safety impact or evacuation. Information gathered from issues at existing plants and best practices developed have been, and will continue to be implemented, as well as adherence to the federal requirements for siting and design of LNG storage tanks. However, as discussed in section 4.13.1.5, FERC, DOT, and USCG require emergency response plans that are coordinated with appropriate federal, state, and local officials. These plans would include an emergency evacuation plan of the surrounding public in the event of an emergency, including the unlikely catastrophic failure of an LNG storage tank.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

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20181119-4006 FERC PDF (Unofficial) 11/19/2018

23

1 public aware of LNG facilities and those that regulate them.

2

TS2-35

3 So we believe that since Driftwood is so close to

4 heavily residential -- close to residential areas that we're

5 concerned about the safety of the tanks because they're

6 already having failures at Cheniere and I'll -- accompanying

7 this I'll be given Kelly a written documentation to support

8 not only what I've just mentioned but a review of the past

TS2-36

9 history of information that I've provided at previous LNG

10 meetings that I don't believe has adequately been addressed

11 by the Coast Guard.

12 (Whereupon at 6:30 p.m., the meeting was

13 adjourned.)

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TS2-36 Mr. Atherton's letter included additional attachments that are not directly related to the proposed Project. Those attachments can be viewed at the FERC website, www.ferc.gov, docket number CP17-117 and CP17-118, accession number 20181018-0015.

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS2 - Sulphur, LA, October 11, 2018 (Cont'd)

F-47

20181119-4006 FERC PDF (Unofficial) 11/19/2018	24
1	CERTIFICATE OF OFFICIAL REPORTER
2	
3	This is to certify that the attached proceeding
4	before the FEDERAL ENERGY REGULATORY COMMISSION in the
5	Matter of:
6	Name of Proceeding: Drfitwood LNG Project
7	
8	
9	
10	
11	
12	
13	
14	Docket No.: CP17-117-000 and CP17-118-000
15	Place: Sulphur, LA
16	Date: Thursday, October 11, 2018
17	were held as herein appears, and that this is the original
18	transcript thereof for the file of the Federal Energy
19	Regulatory Commission, and is a full correct transcription
20	of the proceedings.
21	
22	
23	Larry Flowers
24	Official Reporter
25	

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS3 - Opelousas, LA, October 10, 2018

F-48

20181119-4005 PERC PDF (Unofficial) 11/19/2018	1
1 FEDERAL ENERGY REGULATORY COMMISSION	
2	
3 DRIFTWOOD LNG PROJECT	
4	
5 DOCKET NOS: CP17-117-000 AND	
6 CP17-118-000	
7	
8	
9 SCOPING MEETING	
10	
11 Holiday Inn Opelousas	
12 5696 I-49 North Frontage Road	
13 Opelousas, LA 70570	
14 Wednesday, October 10, 2018	
15 5:00 p.m.	
16	
17	
18	
19	
20	
21	
22	
23	
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25	

Transcript

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS3 - Opelousas, LA, October 10, 2018 (Cont'd)

F-49

20181119-4005 FERC PDF (Unofficial) 11/19/2018		2
	1	P R O C E E D I N G S
	2	REPORTER: Let the record reflect that there were
TS3-1	3	no speakers at the Driftwood LNG Project Scoping Meeting, in
	4	Opelousas Louisiana. The meeting was adjourned at 6:42 p.m.
	5	(Whereupon, at 6:42 p.m., the meeting adjourned.)
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TS3-1 No comments were collected at this public meeting.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

TS3 - Opelousas, LA, October 10, 2018 (Cont'd)

F-50

20181119-4005 FERC PDF (Unofficial) 11/19/2018	3
1	CERTIFICATE OF OFFICIAL REPORTER
2	
3	This is to certify that the attached proceeding
4	before the FEDERAL ENERGY REGULATORY COMMISSION in the
5	Matter of:
6	Name of Proceeding: Driftwood LNG Project
7	
8	
9	
10	
11	
12	
13	
14	Docket No.: CP17-117-000 and CP17-118-000
15	Place: Opelousas, LA
16	Date: Wednesday, October 10, 2018
17	were held as herein appears, and that this is the original
18	transcript thereof for the file of the Federal Energy
19	Regulatory Commission, and is a full correct transcription
20	of the proceedings.
21	
22	
23	Larry Flowers
24	Official Reporter
25	

Transcript

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

FEDERAL AGENCIES

FA1 - Howard (National Oceanic and Atmospheric Administration, National Marine Fisheries Service)

20181015-5066 FERC PDF (Unofficial) 10/15/2018 1:13:23 PM

Brandon Howard, Baton Rouge, LA.
NOAA's National Marine Fisheries Service (NMFS) has reviewed the Driftwood LNG draft Environmental Impact Statement (EIS). The NMFS agrees with section 4.4.2 that Calcasieu Ship Channel is essential fish habitat (EFH) for federally managed fishery species. The NMFS also agrees with section 4.4.4 that the location of the LNG facility itself is EFH for the species listed in table 4.4-4; however, the pipeline route is not. A wetland identified as "E2" is described as being EFH but the NMFS cannot find this wetland on the attached drawings or drawings delineating EFH in general. Based on text in the document, the project could impact 126.2 acres of EFH.

Construction of the turning basin, docks and marine facility would require dredging. The NMFS agrees the use of sediments from such dredging activities be beneficially used through the BUDMAT (Louisiana's beneficial use group) to create marsh habitat as mitigation for unavoidable impacts.

The NMFS Habitat Conservation Division (HCD) recommends and request the following be included in the final EIS:

- FA1-1 - Provide a description and drawing describing what exactly will be located in the fill areas. This will be important to ascertain whether all avoidance and minimization efforts have been exhausted.
 - FA1-2 - Provide a comprehensive mitigation plan. This should include drawings and location of the mitigation areas including a plan to degrade containment dikes to intertidal levels; maintenance and monitoring plan; and functional assessment.
 - FA1-3 - The FERC should provide its conclusion stating whether or not the project would have an adverse effect on EFH.
- The HCD looks forward to working with FERC and the applicant as the project progresses through the regulatory process. Please contact me with any questions.

FA1-1 The Project facilities within the fill areas are described in section 2.1.1 and shown in figures 1.4-1 and 1.4-2. Avoidance and minimization of impacts on natural resources is primarily described in the discussions of alternative LNG Facility sites and alternative LNG Facility configurations. Alternative LNG Facility sites are discussed in section 3.5.1.1 and shown in figures 3.5-1, 3.5-2, and 3.5-3. Alternative LNG Facility configurations are discussed in section 3.5.2 and shown in figures 3.5-4, 3.5-5, 3.5-6, 3.5-7, 3.5-8, and 3.5-9.

FA1-2 Driftwood's mitigation plan, including a detailed description of preparation, use, monitoring, and final condition of the BUDM sites, is available in the joint permit application to the LDNR and COE at Accession No. 20170822-5131. This mitigation plan has been provided to the COE for review as part of the section 404 (Clean Water Act) permitting process. The joint application was submitted in March 2017 and is still in review. In addition, please see the response to comment SH1-18.

FA1-3 FERC's conclusions on the Project's impacts on EFH are provided in the following sections:

- Section 4.4.4.3 Estuarine Wetland – "...we have determined that the LNG Facility would not have a significant adverse impact on estuarine wetland habitat."
- Section 4.4.4.3 Mud Substrates – "...we have determined that dredging would not have a significant adverse impact on mud substrate habitat."

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

**FA1 - Howard (National Oceanic and Atmospheric
Administration, National Marine Fisheries Service) (Cont'd)**

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FA1-3
(Cont'd)

- Section 4.4.4.3 Estuarine Water Column – "...we have determined that impacts on estuarine water column habitat would not be significant," and "...impacts due to the incremental increase in vessel traffic within these waterways during construction and operation of the LNG Facility would not have a significant adverse impact on estuarine water column habitat."
- Section 4.4.4.4 Conclusions – "Due to the relatively small area affected within the Calcasieu Ship Channel, the increase in the amount of estuarine water column habitat created during construction of the berthing area, the proposed re-creation of emergent wetland via BUDM, and coordination with NMFS included in Appendix G, we have determined that the LNG Facility would not have adverse impacts on EFH."

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

FA2 - Seager (U.S. EPA, Region 6)

20181119-0027 FERC PDF (Unofficial) 11/19/2018



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

FILED
SECRETARY OF THE
COMMISSION
2018 NOV 19 P 12:55
FEDERAL ENERGY
REGULATORY COMMISSION

ORIGINAL

November 5, 2018

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

Dear Ms. Bose:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Driftwood LNG and Pipeline Projects (CEQ No. 20180215) pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500 – 1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The purpose of the proposed action is to construct, install, and operate new natural gas pipeline, compression, meter stations, and appurtenant facilities that would allow the delivery of natural gas to a proposed liquefied natural gas terminal for liquefaction and export. The EPA is a cooperating agency for this project. The EPA's primary concerns are potential impacts to wetlands and implementation of mitigation measures and committing to mitigation for the potential impacts on the adjacent environmental justice community. These impacts include noise, potential impacts to drinking water wells and to air quality. We have provided the following detailed comments for your consideration.

Wetlands

If available at the time the FEIS is published, please include the following: compensatory mitigation for each of the impacted wetlands, location of compensatory mitigation sites and demonstration of in-kind or appropriate out-of-kind compensatory mitigation options, the amount of dredge material produced at the LNG facility and the projected beneficial use project, including location of the dredge placement sites and the resulting acreage of marsh produced by the project.

Additionally, the EPA recommends that the 2,000 cubic yards of sediment located immediately adjacent to the North Slip revetment, as well as any additional contaminated soil and sediment found or known to exist at the LNG site, be left in place or removed for upland disposal and not used at the proposed beneficial use site.

Environmental Justice and Impacted Communities

The EPA suggests the FEIS describe how it will commit to implementing mitigation measures identified to avoid or minimize impacts to the surrounding communities.

Please note that effective October 22, 2018, the EPA no longer includes ratings in our comment letters. Information about this change is explained in the Memorandum on Changes to EPA's Environmental

ND

F-53

- FA2-1 Thank you for your comment.
- FA2-1 Please see the response to comment SH1-18, which discusses the status of the compensatory wetland mitigation plan, section 2.5.2.4 of the EIS which discusses dredge material volume, and section 2.5.2.6 which discusses the location and extent of planned dredge placement sites.
- FA2-3 Please see the response to comment PP1-4b.
- FA2-4 Section 4.10.8 of the EIS concluded that the Project would not significantly affect urban or residential areas, nor would there be disproportionately high and adverse human health or environmental effects on minority populations, low-income communities, or Native American Tribes. No mitigation measures specific to environmental justice community were identified.

Federal Agencies

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

FA2 - Seager (U.S. EPA, Region 6) (Cont'd)

20181119-0027 FERC PDF (Unofficial) 11/19/2018

Review Rating Process, available at <https://www.epa.gov/nepa/policy-and-procedures-review-federal-actions-impacting-environment-under-section-309-clean-air>. We appreciate the opportunity to provide comments on this document. If you have any questions, please contact Kimeka Price, the lead contact for this project, at (214)665-7438 or price.kimeka@epa.gov.

Sincerely,



Cheryl T. Seager
Director
Compliance Assurance and
Enforcement Division


cc: Kelley Munoz, FERC, kelly.munoz@ferc.gov

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

**FA3 - Spencer (United States Department of the Interior -
Office of Environmental Policy and Compliance)**

F-55

20181106-5014 FERC PDF (Unofficial) 11/5/2018 5:40:34 PM



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

File 9043.1
ER 18/0421

November 5, 2018

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

Subject: COMMENTS and RECOMMENDATIONS - Draft Environmental Impact Statement (Draft EIS) for the Proposed Driftwood LNG Project, FERC Nos. CP17-117-000 and CP17-118-000, Evangeline, Acadia, Jefferson Davis, and Cameron Parishes, Louisiana

Dear Secretary Bose:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Driftwood Liquefied Natural Gas (LNG) Project, dated September 2018. The project would involve the siting, construction, and operation of 5 LNG plants; 3 LNG storage tanks; 3 marine berths; 4 pipelines; 3 compressor stations; and 15 meter stations. The proposed LNG facility would be located on the west bank of the Calcasieu River adjacent to the Driftwood community in Calcasieu Parish, Louisiana. The proposed pipelines would traverse Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana. The proposed pipelines would consist of 74 miles of 48-inch diameter pipeline, 10.6 miles of 42-inch diameter pipeline, 11.3 miles of 36-inch diameter pipeline, and a 3.4 mile of 30-inch diameter lateral pipeline.

We are providing the following comments in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 *et seq.*), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 *et seq.*), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species

FA3-1 (FWS) files (FWS letter to FERC dated June 24, 2016), ESA consultation on the effects of the project on the federally endangered red-cockaded woodpecker (*Picoides borealis*) and the federally endangered

FA3-1 Please see the response to comment PP1-10.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

**FA3 - Spencer (United States Department of the Interior -
Office of Environmental Policy and Compliance) (Cont'd)**

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20181106-5014 FERC PDF (Unofficial) 11/5/2018 5:40:34 PM

2

FA3-1 American chaffseed (*Schwalbea americana*) has been completed. However, Section 4.8.5, Conclusions and Recommendations, of Volume 1 of the DEIS text states that ESA consultation with FWS is ongoing. We recommend correcting the text to indicate that consultation has been completed; the FWS is available should there be questions or a need for further clarification on the information provided in the 2016 letter.

Migratory Birds

The May 26, 2016, FWS consultation letter also included migratory bird guidance and recommendations. The DEIS states that DWLNG will comply with its recommendations. While we commend DWLNG for complying, we do have the following concern.

FA3-2 Section 4.2.6, Soils, page 4-18, states that there is an area within the project footprint containing soils that exceed Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Soil Screening Standards for chlorinated volatile organic compounds (VOCs). It also states that excavated and dredged soils within the project area are proposed to be used to create/restore marsh for compensatory wetland mitigation purposes in several sites labeled as beneficial use of dredged material (BUDM). To avoid potential adverse impacts to migratory birds, which could include the federally threatened red knot (*Calidris canutus rufa*), those contaminated soils or any other contaminated soils within the project area footprint should be properly disposed of and not be utilized for marsh creation/restoration.

Text Citation

FA3-3 A USGS document ("USGS 2013") is cited in the first paragraph on page 4-81 of the Wildlife Resources section, but no such document is provided in the reference list. We recommend either adding the reference to Section 6.0, References, or removing the text citation.

Thank you for the opportunity to review and comment on this DEIS. If you have any questions concerning our comments, please contact Joshua Marceaux, FWS (Threatened and Endangered Species, and Migratory Birds) at (337) 774-5923 (joshua_marceaux@fws.org) or J. Michael Norris, USGS (Text Citation), at (603) 226-7847 (mnorris@usgs.gov).

Sincerely,



Stephen R. Spencer, PhD
Regional Environmental Officer

cc: FERC Service List

FA3-2 Please see the response to comment PP1-4b.

FA3-3 The reference has been added to section 6.0 in response to this comment.

Federal Agencies

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

20181106-5014 FERC PDF (Unofficial) 11/5/2018 5:40:34 PM

3

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Proposed Driftwood LNG Project)	Project Nos. CP17-117-000, CP17-118-000
)	
Evangeline, Acadia, Jefferson Davis)	
and Cameron Parishes, Louisiana)	

Draft Environmental Impact Statement (Draft EIS) for the Proposed Driftwood LNG Project

Certificate of Service

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

Dated on this 5th day of November, 201




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

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NATIVE AMERICAN TRIBES

TB1 - Bilyeu (Choctaw Nation of Oklahoma)

20181106-0010 FERC PDF (Unofficial) 11/05/2018



Choctaw Nation of Oklahoma
Historic Preservation
P.O. Box 1210 • Durant, OK 74702-1210

Gary Batton
Chief

Jack Austin, Jr.
Assistant Chief

October 26, 2018

ORIGINAL

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

RE: Re: Driftwood LNG LLC and Driftwood Pipeline LLC, Docket Nos. CP17-117-000, and CP17-118-000 Driftwood Project, Notice of Draft EA

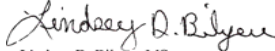
Ms. Bose,

TB1-1

The Choctaw Nation of Oklahoma thanks FERC for the correspondence regarding the above referenced project. The Choctaw Nation Historic Preservation Department requests a copy of the project's EA. Also, we request that a cultural resources survey be performed for the project.

If you have any questions, please contact me.

Sincerely,



Lindsey D. Bilyeu, MS
Senior Compliance Review Officer
lbilyeu@choctawnation.com
580-924-8280 ext. 2631
Choctaw Nation of Oklahoma
Historic Preservation Department
P.O. Box 1210
Durant, OK 74702

Printed on 100% recycled paper

TB1-1 The draft EIS for the Project is available through FERC eLibrary by using the eLibrary link on the FERC's website. Click on the eLibrary link (<https://www.ferc.gov/docs-filing/elibrary.asp>), click on General Search, and enter the docket number in the "Docket Number" field, excluding the last three digits (i.e., CP17-117 or CP17-118). To further narrow the results of yours search, you may select a timeframe that includes the draft EIS publication date, September 14, 2018. In addition, a cultural resources survey has been conducted (see section 4.11) for most of the Project area and must be completed prior to construction.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

STATE AGENCIES

SA1 - Louisiana Department of Transportation & Development

F-59

20181105-5014 FERC PDF (Unofficial) 11/5/2018 8:55:26 AM

Below are comments from LADOTD regarding pipelines in the Driftwood LNG Draft EIS (docket # CP17-117-000 and CP17-118-000):

- | | |
|-------|---|
| SA1-1 | • The FERC document does not discuss HDD borings crossing DOTD ROW. It only addresses crossing of water courses. |
| SA1-2 | • The FERC document does not include a HDD highway crossing Typical Section. |
| SA1-3 | • Each DOTD roadway crossing location will require geotechnical investigation to determine acceptable crossing depths and boring method. |
| SA1-4 | • The FERC document includes a proposed pipeline route along with 3 alternate routes. Without geotechnical reports at each potential pipeline/roadway crossing, it is difficult to comment on the pipelines impact. |
| SA1-5 | • DOTD right-of-way permits are required for the pipeline, fiber optic cables, access connections, and roadway modifications that are not associated with a DOTD project. The following statement on pg. 1-17 "Calcasieu Parish and LADOTD are responsible for the design, permitting, and construction of these improvements, including acquiring right-of-way" implies that Hwy 27's modifications will be a DOTD project. This has not been decided; therefore, the possible need for a DOTD right-of-way permit should be identified in the DEIS. |
| SA1-6 | • In general, Louisiana Administrative Code prohibits transmission pipelines installed parallel in the right-of-way over 200 psi. |
| SA1-7 | • Pipelines crossings must be as near 90 degrees as possible. |

SA1-1 The HDD process is discussed in section 2.5.3.1.

SA1-2 A typical HDD crossing of a surface feature (in this example, a waterbody) is included as figure 2.5-2. The site-specific plan for HDD A3, which crosses Interstate Highway 10 (I-10), is included as figure 2.5-5 in appendix D.

SA1-3 DWPL has committed to completing geotechnical investigation for HDD A3 prior to construction.

SA1-4 FERC staff has addressed the alternatives analysis in accordance with NEPA and Commission policy in section 3.0. FERC's alternatives analysis process is based on readily available public information and does not require geotechnical analysis along each alternative route during route determination. Geotechnical analysis would be required prior to construction to assess constructability of each HDD installation.

SA1-5 As noted in table 1.5-1, Driftwood will identify and obtain necessary permits from LADOTD, including Right-of-way Easement Agreement(s), Crossing State Rights-of-way, Construction within Rights-of-way, and Utility Easement(s). Based on alignments provided by Driftwood, and with the exception of roadway crossings which have been designed to be as close to 90 degrees as practicable, we conclude short segments of the Pipeline would be constructed parallel to existing roadway, but would not be constructed within existing DOT ROW.


SA1-6 Please see the response to comment SA1-5.

SA1-7 Please see the response to comment SA1-5.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SA2 - Myers (Louisiana Department of Wildlife Fisheries)

F-60

JOHN BEL EDWARDS GOVERNOR		JACK MONTOUCE SECRETARY
PO BOX 98000 BATON ROUGE LA 70898		
 October 26, 2018		
Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First St., N.E., Room 1A Washington, DC 20426		
RE: Docket Number: CP17-17-000 CP17-118-000 Applicant: Driftwood LNG, LLC and Driftwood Pipeline, LLC Notice Date: September 21, 2018		
Dear Ms. Bose:		
The professional staff of the Louisiana Department of Wildlife and Fisheries has reviewed the above referenced Draft Environmental Impact Statement for the proposed construction of the Driftwood LNG facility and pipeline, impacting approximately 766.5 acres of wetlands, in Calcasieu, Jefferson Davis, Acadia and Evangeline Parishes, Louisiana. Based upon this review, the following has been determined:		
SA2-1	Scenic Rivers: The pipeline route currently proposed under this project will intersect the Calcasieu River, a Louisiana designated Natural and Scenic River. The applicant must obtain authorization from LDWF, Scenic Rivers Program prior to initiating any proposed activities within or adjacent to the banks of the Calcasieu River. Scenic Rivers Coordinator Chris Davis can be contacted at 225-765-2642 regarding this issue. For information on the Scenic Rivers Program, you can visit our website at: http://www.wlf.louisiana.gov/scenic-rivers .	
SA2-2	Pipeline Comments: In an effort to reduce impacts, LDWF recommends that the applicant utilize a construction ROW that does not exceed 75-feet in total width with a permanent ROW not to exceed 30-feet in total width within wetlands.	
SA2-3	LDWF recommends that there be no clearing of woody vegetation between HDD entry and exit sites.	
SA2-4	One 24 inch culvert shall be installed every 500 feet should permanent access roads be constructed through wetlands. Additional culverts shall be installed at stream crossings and drainage features. Culverts shall be maintained to ensure that the existing flow of surface water is uncompromised.	
SA2-5	General Comments: The applicant shall implement adequate erosion/sediment control measures to insure that no sediments or other activity related debris are allowed to enter any adjacent wetlands or waters. Accepted measures include the proper use of silt fences, straw bales, seeding or sodding of exposed soils or other	
2000 QUAIL DRIVE BATON ROUGE, LA 70808 225-765-2800 WLF.LOUISIANA.GOV		

SA2-1 As noted in section 4.3.3.1, one Louisiana-designated Natural and Scenic River, the Calcasieu River, would be crossed by the Pipeline and lateral near MP 37.5 using the HDD construction method. Prior to initiating any proposed activities at this location, DWPL would obtain authorization from the LDWF Scenic Rivers Program, as noted in table 1.5-1 in appendix A.

SA2-2 Driftwood would adhere to all federal and state regulations required for working in or near wetlands. As described in the Driftwood Procedures, DWPL would limit the width of the construction right-of-way in wetlands to 75 feet or less, except where topographic conditions or soil limitations require that the construction right-of-way width be expanded beyond 75 feet. In general, as discussed in section 2.2.2.3, the following construction right-of-way widths would apply: 110 feet for the 48-inch pipeline in wetlands; 110 feet for the 42-inch pipeline in wetland crossings greater than 500 feet long; 75 feet for the 42-inch pipeline in wetland crossings of less than 500 feet; 130 feet for the parallel 48-inch mainline and 30-inch lateral in wetlands; and 75 feet for the 36-inch pipeline in wetlands. FERC guidance requires site-specific justification for a construction right-of-way greater than 75 feet in wetlands; these locations are identified in table 2.2-2 (appendix A). Following construction, a 50-foot permanent easement would be retained during operation of the Pipeline, except between MP's 36.5 and 39.9, where permanent ROW would be 65 feet in order to follow DOT requirements (49 CFR 192), allowing for routine pipeline inspection and maintenance.

SA2-3 Section 2.5.3.1 discusses surface disturbance between HDD entry and exit locations. Disturbance would be limited to clearing of brush by hand for the placement of the surface coil used for downhole survey, with the exception of 2 10-foot-wide, temporary access paths to be used during construction of the Calcasieu River HDD for

State Agencies

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SA2 - Myers (Louisiana Department of Wildlife Fisheries)
(Cont'd)

SA2-3 placement of a pump and hose for withdrawing water. Section 2.5.3.1
(Cont'd) discusses surface disturbance between HDD entry and exit locations. Disturbance would be limited to clearing of brush by hand for the placement of the surface coil used for downhole survey, with the exception of 2 10-foot-wide, temporary access paths to be used during construction of the Calcasieu River HDD for placement of a pump and hose for withdrawing water.

SA2-4 DWPL would be required to locate access roads outside wetlands as described in section VI.B.1.d. of Driftwood's Procedures, except where alternative measures have been justified and approved (section 2.5.1 of the EIS). DWPL would also be required to comply with the conditions of the CWA Section 404 permit, which is currently under review. As described in section 2.5.3.1 of the EIS, roads would be designed to provide and allow sufficient drainage during use and would be built to minimize soil erosion.

SA2-5 The Project would be constructed according to the Driftwood Plan, which incorporates the FERC Upland Erosion Control, Revegetation and Maintenance Plan. DWPL would follow the measures in the Driftwood Plan during construction and restoration, including topsoil segregation; temporary erosion controls; soil decompaction; and revegetation. Temporary erosion control measures, including silt fences, interceptor dikes, and straw bale structures, would be installed and maintained as necessary to minimize sedimentation into off-right-of-way areas. Temporary erosion control measures would remain in place until permanent erosion controls are installed or restoration is completed. The Erosion and Sedimentation Control Plan (ESCP) describes Driftwood's erosion and sedimentation control strategy, which includes construction entrances, silt fence, straw-bale barriers, drainage swales, sediment catch basins, and vegetative control measures to minimize the offsite transport of sediment.

State Agencies

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SA2 - Myers (Louisiana Department of Wildlife Fisheries) (Cont'd)

F-62

<p>Page 2 Application Number: CP17-17-000 CP17-118-000 October 26, 2018</p>	
SA2-5	Environmental Protection Agency construction site storm water runoff control best management practices. These measures shall be installed prior to the commencement of construction activities and maintained until all disturbed soils have been stabilized.
SA2-6	<p><u>Mitigation:</u> The applicant shall develop a mitigation plan designed to off-set impacts to fish and wildlife resources. That mitigation plan shall be approved by the resource and regulatory agencies. The approved mitigation plan shall be incorporated as part of the conditions of the permit.</p>
SA2-7	LDWF is amenable to the allowance of a one year growing season prior to assessing permanent impacts to emergent and scrub shrub wetlands proposed as being temporary.
SA2-8	<p><u>Fisheries Comments:</u> The proposed project could potentially impact the hydrologic function of the surrounding waterways and prove detrimental to their function and longevity in addition to their fisheries habitat benefits. To lessen impacts to hydrology, the applicant should minimize disturbance to the greatest extent possible and operate in a manner that will sustain hydrology in its natural condition.</p>
SA2-9	Equipment should be inspected for the presence of invasive aquatic weeds, including but not limited to giant salvinia (<i>Salvinia molesta</i>), water hyacinth (<i>Eichhornia spp</i>), and Esthwaite Waterweed (<i>Hydrilla verticillata</i>), or aquatic animals, such as apple snails (Family <i>Ampulariidae</i>), before being transferred between waterbodies to prevent the transport and spread of such species.
SA2-10	Contaminants from the construction process or the pipeline should not be allowed to enter surface waters. If contaminants were to enter adjacent waters they could be transported to nearby streams, bayous, and lakes. This could adversely affect aquatic species both now and in the future. Furthermore, some of the project site is located in wetland habitat that is prone to high water fluctuations. Therefore, the Department recommends that a spill prevention and response plan be in place.
SA2-11	<p><u>Species/Habitats of Concern:</u> Our database indicates that a Western acidic longleaf pine savanna occurs within the proposed project area. This forest type is considered imperiled globally and in the State of Louisiana with a G2G3/S1S2 ranking. Pine Savannas are floristically rich, herb-dominated wetlands that are naturally sparsely stocked with longleaf pine (<i>Pinus palustris</i>) and historically dominated the Gulf Coastal Plain flatwood regions of southeast and southwest Louisiana. Efforts should be made to minimize any impacts to this longleaf pine savanna site. Please contact Chris Doffitt at 318-487-5885 for more information on this natural community and to coordinate activities near this site.</p>
SA2-12	The proposed project may impact the Crested Caracara (<i>Caracara cheriway</i>) and its preferred habitat. The Crested Caracara is considered critically imperiled in the state of Louisiana, and is limited to the southwest corner of the state. It is a vulture sized bird spending much of its time on the ground hunting snakes, rodents, and other available prey. The main cause of its decline is the loss of habitat due to development and agriculture. The mixed coastal prairie and marsh that constitutes the Crested Caracara's preferred habitat have been recognized as ecologically significant and in need of conservation. Best management practices should be used to minimize impacts to this species and its preferred habitat. If you have any questions, please contact Michael Seymour at 225-763-3554.
SA2-13	The proposed project may potentially impact Blue waterlily (<i>Nymphaea elegans</i>). This floating-leaved aquatic plant is considered imperiled in Louisiana with a state rank of S2/S4. It typically occurs in ponds in freshwater marshes. Please use caution while working near this habitat to avoid impacts to this species. Contact Chris Doffitt at 318-487-5885 for more information on avoiding impacts to this rare plant.

SA2-6 Please see the response to comment SH1-18.

SA2-7 DWPL would be required to conduct follow-up inspections of all disturbed areas to determine the success of revegetation, at a minimum, after the first and second growing seasons as described in section VII.A.1. of Driftwood's Plan.

SA2-8 Minimization of disturbance through site selection, route selection, site configuration, etc. is discussed in section 3.0, Alternatives.

SA2-9 Driftwood's approach to management of invasive plant species is discussed in section 4.6.2.4 and detailed in Driftwood's Revegetation and Invasive Species Management Plan (FERC eLibrary accession number 20170621-5139). This plan does include ensuring that all equipment has been cleaned and is free of vegetation and debris prior to entering and exiting the Project area.

SA2-10 Driftwood's Construction SPCC Plan is available from the FERC eLibrary (accession number 20170331-5058).

SA2-11 The longleaf pine savanna affected by the Project is discussed in sections 4.6.1.4. and 4.6.2.5. Driftwood has initiated consultation with LDWF, as noted in table 1.5-1. In addition, please see the response to comment SH1-3.

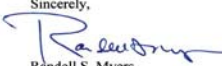
SA2-12 The crested caracara is discussed in section 4.8.3.1. Driftwood has initiated consultation with LDWF, as noted in table 1.5-1.

SA2-13 Driftwood has initiated consultation with LDWF, as noted in table 1.5-1. In addition, text in section 4.8.3.8 has been modified.

State Agencies

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SA2 - Myers (Louisiana Department of Wildlife Fisheries)
(Cont'd)


	<p>Page 3 Application Number: CP17-17-000 CP17-118-000 October 26, 2018</p>
SA2-14	<p>The proposed may also potentially impact Old Prairie Crawfish (<i>Fallicambarus macneesei</i>). This species is considered rare globally and critically imperiled in the State of Louisiana due to habitat destruction, pollution, and competition from introduced crawfish species. This species typically resides in wet meadow habitats including ditches flooded by heavy rains, or in complex burrows carved into the sandy-clay soils of roadside ditches. Habitat protection is recommended for this species by avoiding disturbances such as water pollution, siltation, and the construction of dams. If you have any questions, please contact Keri Lejeune 337-735-8676.</p> <p>The Louisiana Department of Wildlife and Fisheries appreciates the opportunity to review and provide recommendations to you regarding this proposed activity. Please do not hesitate to contact Habitat Section biologist Zachary Chain at 225-763-3587 should you need further assistance.</p> <p>Sincerely,  Randall S. Myers Assistant Secretary</p> <p>zc/cm/bh</p> <p>c: EPA Marine & Wetlands Section USFWS Ecological Services</p>

SA2-14 The old prairie crawfish is discussed in section 4.8.3.3. Driftwood has initiated consultation with LDWF, as noted in table 1.5-1.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

**SA3 - Landry (Louisiana Department of Justice, Attorney
Generals Office)**

20181107-0008 FERC EIS Official 11/07/2018
CP17-1171 CP17-118


Jeff Landry
Attorney General

State of Louisiana
DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL
P.O. BOX 94005
BATON ROUGE
70804-9005

**OFFICE OF
EXTERNAL AFFAIRS**
2018 NOV -6 P 5:03
**FEDERAL ENERGY
REGULATORY COMMISSION**

October 31, 2018

The Honorable Kevin McIntyre
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426


Dear Chairman McIntyre:

SA3-1 I am writing in support of Tellurian's planned Driftwood LNG Project near Lake Charles, Louisiana. The Driftwood LNG Project will create economic opportunity in communities throughout Louisiana and deserves the Commission's expeditious approval.

SA3-2 Tellurian plans an estimated \$15.2 billion investment in Driftwood that will produce thousands of jobs and generate billions of dollars of economic activity in the region. The company estimates the Project will require 6,500 workers over five years to construct and once operational will create over 400 permanent, high-paying jobs. A study estimates the project will generate over \$500 million in annual economic activity in our State, and create 4,000 additional jobs in the Louisiana economy.

SA3-3 Energy production, processing, and transport are critical, longstanding drivers of our State's economy. By enabling overseas sales of our abundant resources, Tellurian's project will promote stability and investment in these sectors and expand prosperity over the long term.

SA3-4 Tellurian has been an excellent corporate citizen, and the LNG Driftwood Project enjoys broad support in Southwest Louisiana. I urge the Commission to proceed with final permitting for the Driftwood Project, so Louisiana can begin reaping the benefits of this important investment.

Sincerely,

Jeff Landry
Attorney General

SA3-1 Thank you for your comment.

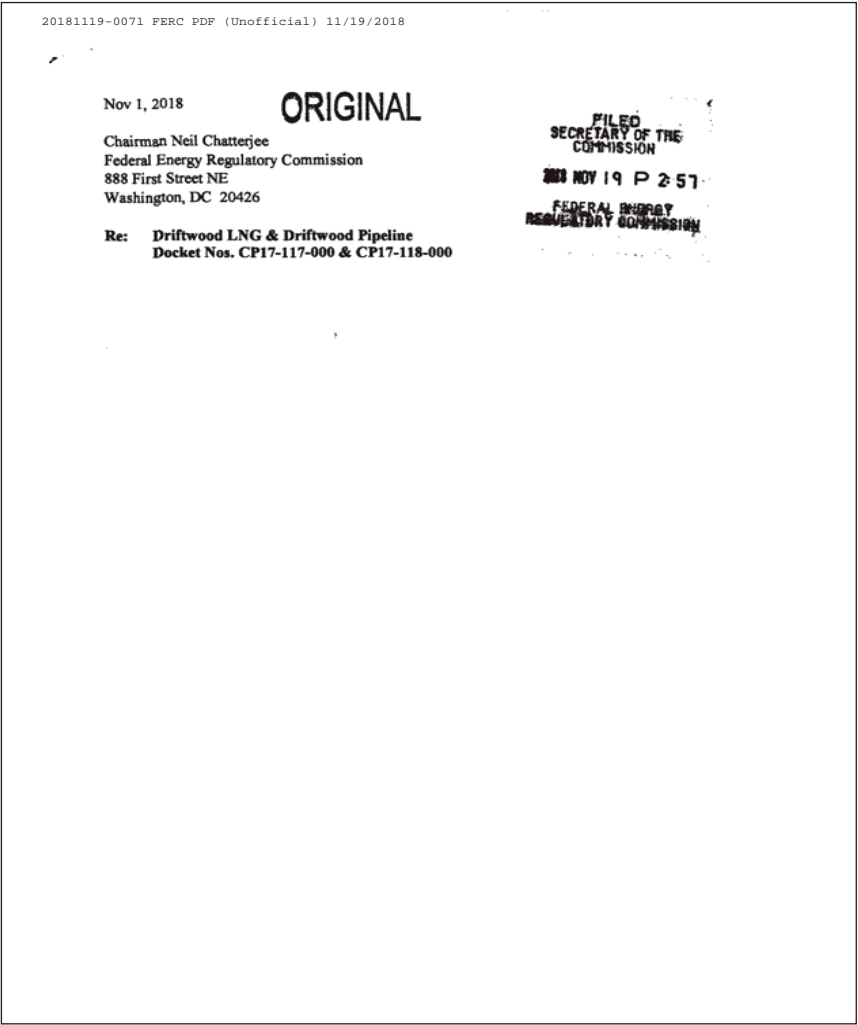
SA3-2 Thank you for your comment. Please see sections 4.10.2 and 4.10.3 of the EIS for more precise estimates of the anticipated annual fiscal and employment impact of the Project.

SA3-3 Thank you for your comment.

SA3-4 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

LOCAL AGENCIES
LA1 - Calcasieu Parish



APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

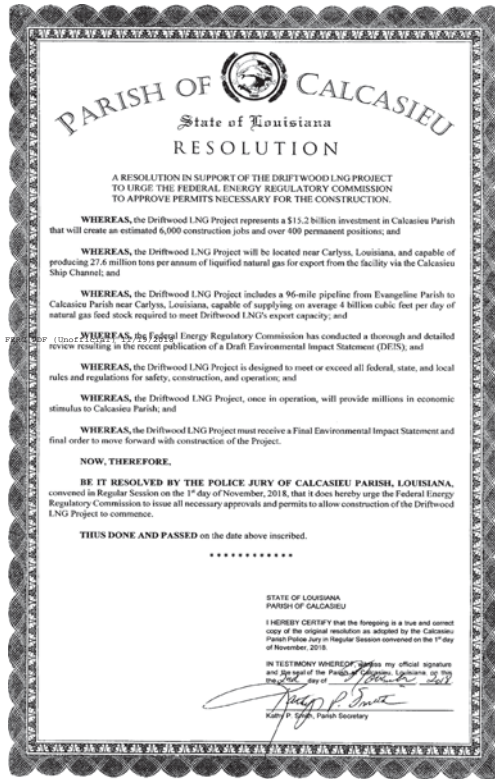
LA1 - Calcasieu Parish (Cont'd)

LA1-1

20181119-0071

LA1-2

LA1-3



LA1-1 Thank you for your comment.

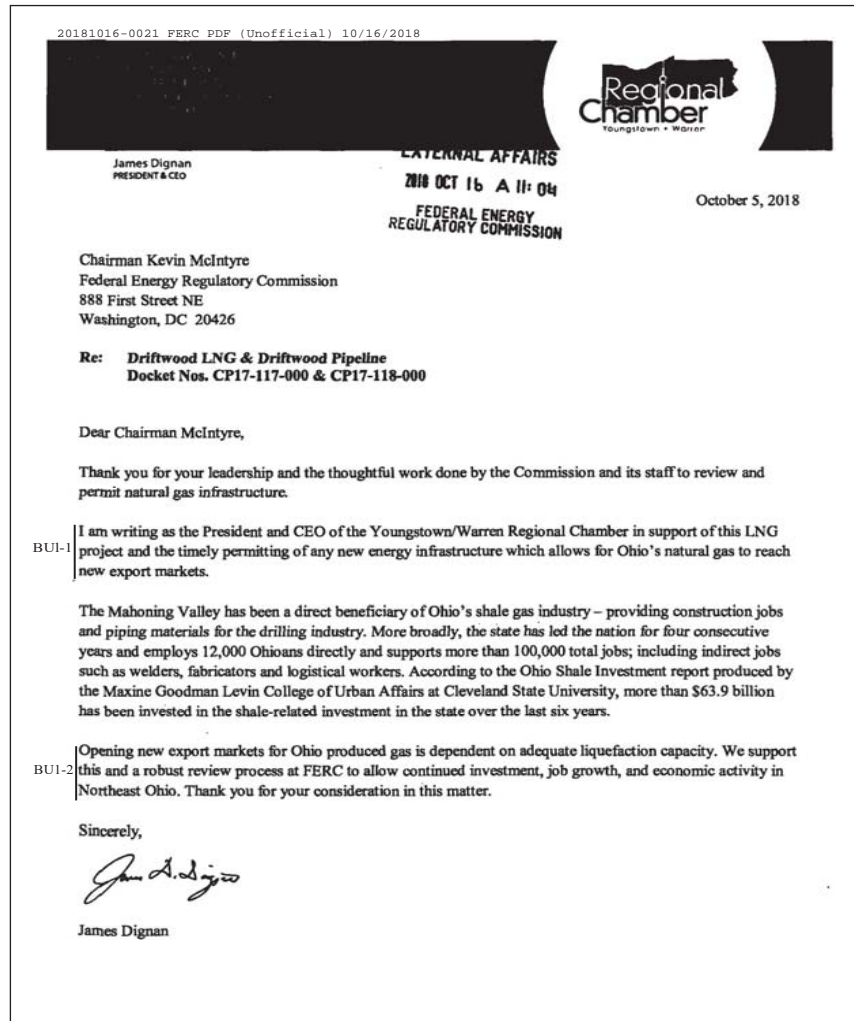
LA1-2 Thank you for your comment.

LA1-3 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BUSINESSES

BU1 - Dignan



BU1-1 Thank you for your comment.

BU1-2 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU2 - Lake Charles Harbor



Port of Lake Charles
Harbor & Terminal District
Post Office Box 3753
Lake Charles, LA 70602
Phone 337-433-9366
Facsimile 337-493-3523

October 18, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre,

I am writing to express our continued support for Tellurian Inc.'s Driftwood LNG project in Southwest Louisiana and to request the Federal Energy Regulatory Commissions (FERC) promptly issue a final approval to the project.

Southwest Louisiana is uniquely positioned in Louisiana to undergo significant economic growth over the next several years. Already over \$40 billion in industrial projects are under construction and at least an equal amount is in FEED and permitting stage. To ensure that this growth potential is realized, it is crucial that projects like Driftwood LNG, which alone will contribute \$15 billion in investment once completed, are authorized and receive permitting in as timely a manner as possible.

Driftwood LNG is not only important to our local community but to the Port of Lake Charles and the overall state's economy. Driftwood LNG will be one of our key partners and help contribute to Channel-related activities that have an economic impact of over an estimated \$6 Billion in statewide revenue. Channel-related activities also produce jobs totaling 2% of the state's workforce every year.

It is important for our local communities and businesses, like the Port of Lake Charles, to see the benefits that investments such as those that the Driftwood LNG project will bring.

We applaud the issuance of the FERC scheduling notice that identifies a final Environmental Impact Statement (EIS) on January 18, 2019. We appreciate the thorough, hard work of the FERC staff on these very important projects. Considering the benefits to the Louisiana economy and the robust application and review process to date, we request that the FERC review the application at the fastest pace possible to assure adherence to or improvement on the timing outlined in the scheduling notice.



William J. Rase, III
Executive Director
Port of Lake Charles

cc: Commissioner Cheryl Lafleur
Commissioner Neil Chatterjee
Commissioner Richard Glick


- BU2-1 Thank you for your comment.
- BU2-2 Thank you for your comment.
- BU2-3 Thank you for your comment. For an estimate on Project related employment and economic impacts, please see sections 4.10.2 and 4.10.3.
- BU2-4 Thank you for your comment.
- BU2-5 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU3 - Palmer (Lake Charles Pilots, Inc.)

F-69

20181030-0017 FERC PDF (Unofficial) 10/29/2018



Lake Charles Pilots, Inc.
4902 Ithies Road, Suite A
Lake Charles, Louisiana 70605

ORIGINAL

October 25, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426


RE: **Driftwood LNG & Driftwood Pipeline**
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre:

BU3-1 We are writing today in support of Tellurian Inc's investment in Southwest Louisiana by way of the Driftwood LNG Project in Calcasieu Parish, and to request the Federal Energy Regulatory Commissions prompt review of their application. The project filed a robust application in March 2017 and has substantial local and state support.

BU3-2 We understand the estimated construction cost of the LNG facility is expected to be approximately \$15 billion with construction expected to begin in 2019 and the first plant becoming operational in 2023. All five LNG plants should be operational by 2025. The construction of the facilities would employ directly approximately 6,000 for the LNG facility. During operations Driftwood LNG will support over \$500 million per year in spending in Louisiana and close to 400 permanent positions at the facility.

BU3-2 We applaud the issuance of the FERC scheduling notice that identifies a final Environmental Impact Statement (EIS) on January 18, 2019. We appreciate the thorough, hard work of the FERC staff on these very important projects. Considering the benefits to the Louisiana economy and the local and state support, we respectfully request that FERC review the application at the fastest pace possible to assure adherence to or improvement on the timing outlined in the scheduling notice.

Best Regards,

Captain Brett A. Palmer
President

Office 337/436-0372 • Office Fax 337/474-4573 • Dispatch Fax 337/478-5354 • www.lakecharlespilots.com

FILED
SECRETARY OF THE
COMMISSION
OCT 29 P 3 24
REGULATORY COMMISSION

BU3-1 Thank you for your comment.


BU3-2 Thank you for your comment.

BU3-3 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU4 - Marceaux (Cameron Parish Port)

F-70

20181030-0016 FERC PDF (Unofficial) 10/29/2018	
	<div><div>October 15, 2018</div><div>Chairman Kevin McIntyre Federal Energy Regulatory Commission 888 First Street NE Washington, DC 20426</div><div>Re: Driftwood LNG & Driftwood Pipeline Docket Nos. CP17-117-000 & CP17-118-000</div><div>Dear Chairman McIntyre,</div><div><div>BU4-1</div><div>We are writing today in support of Tellurian Inc.'s investment in Southwest Louisiana by way of the Driftwood LNG Project, and to request the Federal Energy Regulatory Commissions prompt review of their application. The Project filed a robust application in March 2017 and has substantial local and state support.</div></div><div><div>BU4-2</div><div>We understand the estimated construction cost of the LNG facility is expected to be approximately \$15 billion with construction expected to begin in 2019 and the first plant becoming operational in 2023. All five LNG plants should be operational by 2025. The construction of the facilities would employ directly approximately 6,000 for the LNG facility. During operations Driftwood LNG will support over \$500M per year in spending in Louisiana and close to 400 permanent positions at the facility.</div></div><div><div>BU4-3</div><div>As the director of the Cameron Parish Port, I have had the opportunity to engage with the Tellurian team on several occasions. I believe they will be responsible users of the Calcasieu River Waterways, and strong, positive partners throughout Southwest Louisiana. I know they have actively met with other area businesses, local officials, and SWLA residents to keep everyone informed of their project impact and status and to receive feedback.</div></div><div><div>BU4-4</div><div>We applaud the issuance of the FERC scheduling notice that identifies a final Environmental Impact Statement (EIS) on January 18, 2019. We appreciate the thorough, hard work of the FERC staff on these very important projects. Considering the benefits to the Louisiana economy and the local and state support, we respectfully request that the FERC review the application at the fastest pace possible to assure adherence to or improvement on the timing outlined in the scheduling notice.</div></div><div><div>Best regards,</div><div></div><div>Clair Hebert Marceaux Cameron Parish Port, Harbor and Terminal District, Port Director</div><div>cc: Commissioner Cheryl LaFleur Commissioner Neil Chatterjee Commissioner Richard Glick</div></div></div> <div><div>ORIGINAL</div><div>FILED SECRETARY OF THE COMMISSION OCT 29 P 3 24 REGULATORY COMMISSION</div></div>

BU4-1 Thank you for your comment.

BU4-2 Thank you for your comment.



BU4-3 Thank you for your comment.

BU4-4 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

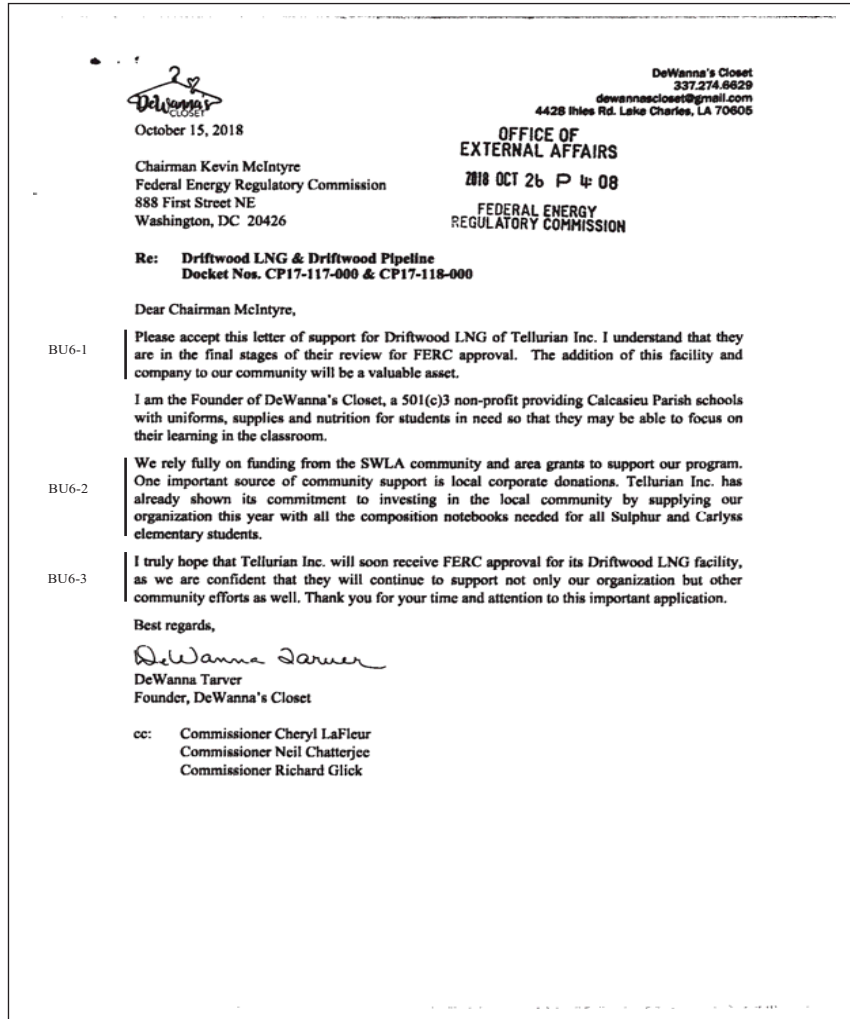
BU5 - Flavin Realty

F-71

 3221 Ryan Street PO Box 5027 Lake Charles, Louisiana 70606 Business: (337) 478-8530 Fax: (337) 477-7217 October 15, 2018	ORIGINAL	<p>SECRETARY OF THE CO: JSSJON</p> <p>ZIHB OCT 29 P 3: 2W</p> <p>REGULA) URI t:UM1,SSJON</p>
Chairman Kevin McIntyre Federal Energy Regulatory Commission 888 First Street NE Washington, DC 20426		
Re: Driftwood LNG & Driftwood Pipeline Docket Nos. CP17-117-000 & CP17-118-000		
Dear Chairman McIntyre,		
BU5-1	I write in support of Driftwood LNG in Calcasieu Parish, Louisiana. This project will be a catalyst for future work, jobs and prosperity for all of Southwest Louisiana. Furthermore, it is a key project for our country's energy and national security helping our country to become a global leader in energy for decades to come.	BU5-1 Thank you for your comment.
BU5-2	The Southwest Louisiana community is excited and anxious to start benefitting from the economic impact of this project from its \$15.2 billion-dollar facility investment to the 400 well-paid, permanent jobs it will support. All our citizens will reap benefits along the way. Some will work in the industry and others may work in associated businesses. Importantly, the economy will improve and tax revenue will increase everywhere. This will pay for important infrastructure and public service needs like roads, bridges, schools, etc.	BU5-2 Thank you for your comment.
BU5-3	Personally, my company has already been positively impacted by the company. Tellurian has partnered with Flavin Realty in their outreach to local landowners. As a real estate professional, I see additional benefits to the community in future increased property values.	BU5-3 Thank you for your comment.
BU5-4	I want the FERC to consider the importance of these improvements in Southwest Louisiana, but also the benefits for our country when it evaluates the Driftwood LNG project. I respectfully ask that FERC finish its review quickly so our communities and nation can see the benefits with construction able to commence in 2019. Thank you for your time and attention to this important application.	BU5-4 Thank you for your comment.
Best regards,  Dan Flavin Flavin Realty, Associate Broker & Member of the Board of Directors Former Louisiana State Representative for District 36 (Calcasieu and Cameron parishes)		
cc: Commissioner Cheryl Lafleur Commissioner Neil Chatterjee Commissioner Richard Glick		

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU6 - Tarver - DeWanna's Closet



BU6-1 Thank you for your comment.

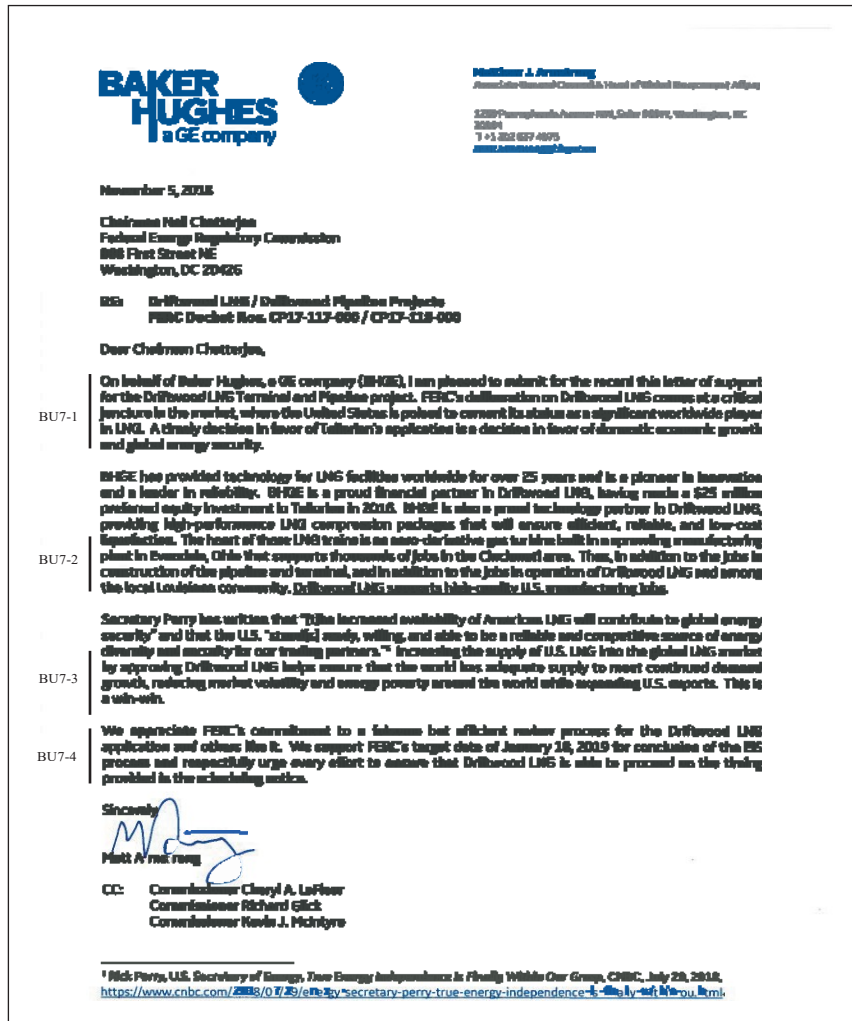
BU6-2 Thank you for your comment.

BU6-3 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU7 - Armstrong (Baker Hughes, a GE Company)

F-73



BU7-1 Thank you for your comment.

BU7-2 Thank you for your comment.


BU7-3 Thank you for your comment.

BU7-4 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

BU8 - John (Louisiana Mid-Continent Oil and Gas Association [LMOGA])

F-74

	<p>CP 17-117 CP 17-118</p> <p>LMOGA LOUISIANA MID-CONTINENT OIL AND GAS ASSOCIATION</p> <p>730 NORTH BOULEVARD, BATON ROUGE, LOUISIANA 70802 • TELEPHONE (225) 387-3205 FAX (225) 344-5502</p> <p>November 1, 2018</p> <p>The Honorable Neil Chatterjee Chairman Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426</p> <p>Dear Chairman Chatterjee:</p> <p>On behalf of the Louisiana Mid-Continent Oil and Gas Association (LMOGA), these comments are submitted in support of the development of Liquified Natural Gas (LNG) in Louisiana. As part of this needed development, LMOGA recommends that the Federal Energy Regulatory Commission (FERC) move as expeditiously as possible to finalize and approve permitting of projects such as the Driftwood LNG Project.</p> <p>LMOGA represents the oil and gas industry of Louisiana, one of the largest employers in the state. According to a recent study, the oil and gas sector provides over 250,000 jobs and contributes nearly \$74 billion in economic impacts to the Louisiana state economy each year. The oil and gas industry paid over \$5 billion in wages to Louisiana workers last year and contributed more than \$2 billion in taxes to the state treasury.</p> <p>A vibrant oil and gas industry generates thousands of jobs with direct and indirect benefits to investors, workers, royalty owners, and municipalities in Louisiana and across the gulf coast region. These benefits are critical to the Louisiana economy and LMOGA supports an expeditious review. We urge FERC to quickly review permits so Louisiana can begin to benefit from this investment.</p> <p>Sincerely,</p> <p> Chris John President, Louisiana Mid-Continent Oil and Gas Association</p>	<p>OFFICE OF EXTERNAL AFFAIRS 218 NOV 15 P 3 52 FEDERAL ENERGY REGULATORY COMMISSION</p>
BU8-1	Thank you for your comment.	
BU8-2	Thank you for your comment.	

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

STAKEHOLDERS

SH1 - Teague

F-75

20181004-5018 FERC PDF (Unofficial) 10/4/2018 9:19:16 AM

Kenneth Teague, Austin, TX.
October 3, 2018

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

OEP/DG2E/Gas Branch 3
Driftwood LNG LLC
Driftwood Pipeline, LLC
Driftwood LNG Project
Docket Nos. CP17-117-000 and
CP17-118-000

Dear Ms. Bose: Please find my comments on the subject docket, enclosed.
To summarize, the DEIS is inadequate for several reasons:
Alternatives were not adequately considered.
Avoidance and minimization of impacts to aquatic habitats were
insufficient.
Disclosure of environmental impacts was unacceptable.
Several significant impacts were not proposed to be mitigated and some
proposed mitigation was unacceptable (contaminated wetlands).
FERC's analysis clearly ignored some of these issues.

These comments represent an overview of my concerns for the DEIS. While
FERC and other agencies may expect reviewers to document specific
sections, pages, paragraphs, and sentences, that represent specific
concerns, the effort such a review and comment process would require
represents a poor use of my time. FERC staff and their contractors are
certainly capable of identifying sections, pages, paragraphs, and
sentences of the DEIS on which my more general comments are based. The
fact that I am not identifying such specific sections, pages, paragraphs,
and sentences in the document, should not detract from the validity of my
more general comments.

Sincerely,
Kenneth G. Teague, PWS, Certified Senior Ecologist
2918 Ranch Rd 620 N, #236
Austin, TX 78734
214-202-4988
Comments
Kenneth G. Teague, PWS, Certified Senior Ecologist
October 3, 2018

Driftwood LNG Project
Draft Environmental Impact Statement
Driftwood LNG, LLC and Driftwood Pipeline, LLC
Docket Nos. CP17-117-000 and CP17-118-000
FERC/DEIS-0284D
September, 2018

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

F-76

20181004-5018 FERC PDF (Unofficial) 10/4/2018 9:19:16 AM	
SH1-1	The DEIS does not adequately evaluate all the reasonable alternatives. The DEIS did not evaluate an obvious alternative to the proposed LNG facility, located 1-1.5 mi NE of the proposed site:
SH1-2	The alternative location is the undeveloped upland tract on the N side of the dredged artificial water body in the image above. It seems highly likely that this alternative would impact fewer wetlands, and may not contain contaminated soils.
SH1-3	The DEIS did not consider a pipeline alternative that would have avoided impacts to rare long leaf pine savannah. The proposed alternative only crosses this habitat a short distance, so it would seem likely that this could be avoided. Considering the rarity and high value of this habitat, a serious consideration of alternatives to avoid these impacts is warranted.
SH1-4	The DEIS does not appear to consider pipeline alternatives that are fully compliant with FERC's Plan and Procedures. Since Driftwood requested many deviations from FERC's Plan and Procedures, such alternatives clearly should have been considered. They would almost certainly result in fewer wetland and water body impacts.
SH1-5	The DEIS does not propose dredged material disposal alternatives that would avoid contaminating the aquatic environment.
SH1-6	The DEIS does not demonstrate adequate avoidance and minimization of impacts to aquatic habitats.
SH1-7	Driftwood did not consider the LNG site alternative discussed above. Driftwood LNG did not consider alternatives that more fully (or fully) implemented FERC's Plans and Procedures. Such alternatives would have resulted in fewer impacts to wetlands and waterbodies.
SH1-8	Driftwood did not correctly assess the suitability of dredged material for disposal in the aquatic environment.
SH1-9	Driftwood did not propose dredged material disposal alternatives that would avoid contaminating the aquatic environment.
SH1-10	The DEIS does not adequately disclose the likely environmental impacts of the proposed project.
SH1-11	The DEIS does not include appropriate dredged material testing data and analysis, for determination of suitability for disposal in the aquatic environment. The DEIS repeatedly acknowledges that there is an area of contaminated soils and sediments on the proposed site, some of which is proposed to be dredged and disposed of in the aquatic environment, for the purpose of creating marsh to be used as required compensatory mitigation for project impacts to similar habitats. The DEIS indicates that this dredged material was evaluated according to LDEQ's Risk Evaluation / Corrective Action Program (RECAP). While that may be appropriate for some risks, it is not the correct method for evaluating suitability for disposal in the aquatic environment. The Inland Testing Manual (ITM) details the correct procedures for evaluating the suitability of dredged material for disposal in the aquatic environment, other than in the ocean. The ITM may be downloaded here: https://www.epa.gov/cwa-404/inland-testing-manual
SH1-12	

SH1-1 FERC staff has addressed the alternatives analysis in accordance with NEPA and Commission policy in section 3.0.

SH1-2 Your recommended alternative facility site was assessed in the draft and final EIS as Alternative Site 6, as shown in figure 3.5-1. We found that development of the LNG Facility on this site would affect about 50 acres fewer wetlands than the proposed site, the wetlands in the northern portion of the site appear to have the pimple mounds characteristic of remnant coastal prairie habitat, an LDWF vegetation community of special concern, and the need for an access road through wetlands would also add to the wetland impact. Assuming that Driftwood would use the same pipeline route currently proposed, extended to reach Alternative Site 6, it would require about 2 miles of additional pipeline, including a crossing of the Calcasieu Ship Channel. In consideration of impacts on all resources, not just wetlands, we determined that this site did not provide a significant environmental advantage to Driftwood's proposed site, and we did not evaluate it further.

SH1-3 Please see section 3.6.2.5 of the final EIS, which presents an analysis of route variations between MPs 20.8 and 21.6 that would avoid and/or reduce impacts on longleaf pine savanna.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

- SH1-4 FERC's Plan and Procedures are available at <https://www.ferc.gov/industries/gas/enviro/guidelines.asp> and are designed to avoid and minimize impacts on wetlands, waterbodies, and other natural resources in typical habitats throughout the United States. Alternative measures are frequently required to adapt the Plan and Procedures to specific habitats. The southern Louisiana setting contains abundant wetland habitat, which makes identification of a route for a 96-mile, large-diameter pipeline that avoids the need for alternative measures unlikely. Please see section 3.6.1 for additional details on route alternatives.
- SH1-5 The draft EIS recognizes the potential for contamination, if contaminated sediment were encountered during dredging and discloses the potential impacts that could occur if contamination is present and contaminated material is dredged. Based on clarification from DWLNG (please see the response to comment PP1-4b), we have determined that no sediment unassessed for sediment contamination will be dredged.
- SH1-6 FERC staff has addressed impacts to aquatic habitats in accordance with NEPA and Commission policy. In addition, impacts and mitigation measures described were developed in consultation with the appropriate federal and state agencies. Please see section 4.4 for this discussion.
- SH1-7 Please see the response to comment SH1-2.
- SH1-8 Please see the response to comment SH1-4.
- SH1-9 Please see the response to comment PP1-4b.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

SH1-10 FERC staff has addressed impacts of the proposed project in accordance with NEPA and Commission policy.

SH1-11 Please see the response to comment PP1-4b.

SH1-12 Text was adjusted in section 4.2.6.1 in response to this comment.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

F-79

20181004-5018 FERC PDF (Unofficial) 10/4/2018 9:19:16 AM

While the DEIS cites data that cannot be used to determine suitability of the dredged material for disposal in the aquatic environment, the data indicate that the dredged material is contaminated, potentially too contaminated for disposal in the aquatic environment. These data clearly indicate a "reason to believe" that the dredged material is contaminated. Regardless, Driftwood still proposes to dispose of the dredged material in the aquatic environment, for the purpose of creating wetlands they intend to use to satisfy requirements for compensatory mitigation for impacts of the proposed project on similar wetlands. I assert that: This dredged material should not be permitted to be disposed of in the aquatic environment until it is properly tested according to the Inland Testing Manual, and the results provided to the public for review and comment.

A Final EIS must not be produced until the dredged material is properly tested using the Inland Testing Manual, and the results are provided to the public for review and comment.

Driftwood should not be allowed to claim any compensatory mitigation credit for wetlands created using this contaminated sediment, unless the latter is tested using the Inland Testing Manual procedures and is found to be acceptable for disposal in the aquatic environment.

Driftwood should not be allowed to "mix" and "dilute" contaminated sediments with relatively clean sediments, prior to disposal. Any soils or sediments found not to be unsuitable for disposal in the aquatic environment must be disposed of properly, including potentially, upland confined disposal, or disposal in a hazardous waste disposal facility. Sampling should be conducted in a manner that allows for mapping of the contaminated soils/sediments, so that appropriate decisions may be made regarding their disposal.

The DEIS does not disclose, with any meaningful detail, the impacts of the pipeline crossings through water bodies.

The DEIS does not disclose the impacts of fragmentation of forested wetlands, caused by the proposed pipeline routing.

The DEIS does not disclose the potential impacts of proposed dredging on dissolved oxygen concentrations in bottom waters. Dredged channels often experience lower DO concentrations in bottom waters than undredged water bodies. Low DO renders aquatic habitat unsuitable for aquatic life.

The DEIS does not propose adequate environmental mitigation for project impacts

Compensation for project impacts to wetlands by creating contaminated wetlands with contaminated dredged material does not constitute acceptable mitigation.

Due to the long time required for forested wetland restoration, the DEIS should have committed to provide mitigation for temporal impacts, which it does not.

Rather than requiring the environment to absorb the temporal impacts, Driftwood should be required to expedite restoration of herbaceous wetlands impacted by the proposed pipeline, by vegetative plantings

No mitigation is proposed for impacts to water bodies from pipeline crossings.

The DEIS does not propose the full cost of compensatory mitigation to be borne by Driftwood

SH1-13 Please see the responses to comments PP1-4b and SH1-12.

SH1-14 FERC staff has addressed the impacts of the proposed Pipeline crossings in accordance with NEPA and Commission policy.

SH1-15 Fragmentation of forested wetlands is discussed in section 4.5.2.2. Fragmentation of forests in general is discussed in section 4.6.2.2. The reduction of habitat fragmentation by collocation of the Pipeline with other linear features is discussed in section 4.14.2.5.

SH1-16 Text has been adjusted in section 4.3.3.2 in response to this comment.

SH1-17 Please see the response to comment PP1-4b.

SH1-18 Text has been adjusted in section 4.5.3 in response to this comment.

We agree that impacts on forested wetlands represent a temporal impact and concluded in the EIS that impacts on wetlands would be would temporary and permanent. Section 4.5.2.2 states that in forested wetlands, the impact of construction would be much longer due to the time needed to regenerate a forest community. Given the species that dominate the forested wetlands crossed by the Pipeline, regeneration to pre-construction conditions may take 30 years or longer.

It is the responsibility of the COE to determine the appropriate amount and type of mitigation for the various impacts to Waters of the U.S., including wetlands, from construction and operation of the LNG Facility and Pipeline. We received comments on the draft EIS requesting the final Driftwood Compensatory Mitigation Plan. Driftwood's Compensatory Mitigation Plan (FERC eLibrary accession

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

SH1-18 number 20170822-5131) includes creation and restoration of estuarine marsh.
(Cont'd)

FERC requires that Driftwood have all federal authorizations, including the COE permit, prior to construction. Driftwood's Compensatory Mitigation Plan will be developed during the COE's review process and approved prior to construction. Wetland mitigation requirements will be finalized during the COE's review process. Further, FERC will monitor the Pipeline construction right-of-way until restoration is successful, and DWPL will be required to file wetland monitoring reports and, if necessary, develop a remedial revegetation and monitoring plan if wetlands do not revegetate within three years of construction.

SH1-19 Please see the response to comment SH1-18.

SH1-20 Please see the response to comment SH1-18.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH1 - Teague (Cont'd)

20181004-5018 FERC PDF (Unofficial) 10/4/2018 9:19:16 AM

SH1-21

Apparently, the DEIS indicates that Driftwood's only contribution towards required compensatory mitigation for impacts to estuarine marshes, is to contribute dredged material, some of which is contaminated. It appears that all other costs of creating the proposed mitigation marshes will be borne by the State/Federal beneficial use of dredged material program. This represents an unacceptable Federal/State subsidy of mitigation costs that is not compliant with the Mitigation Rule.

These comments represent an overview of my concerns for the DEIS. While FERC and other agencies may expect reviewers to document specific sections, pages, paragraphs, and sentences, that represent specific concerns, the effort such a review and comment process would require represents a poor use of my time. FERC staff and their contractors are certainly capable of identifying sections, pages, paragraphs, and sentences of the DEIS on which my more general comments are based. The fact that I am not identifying such specific sections, pages, paragraphs, and sentences in the document, should not detract from the validity of my more general comments.

SH1-21 Please see the response to comment SH1-18.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH2 - Teague

20181004-5019 FERC PDF (Unofficial) 10/4/2018 9:38:01 AM

October 3, 2018

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

OEP/DG2E/Gas Branch 3
Driftwood LNG LLC
Driftwood Pipeline, LLC
Driftwood LNG Project
Docket Nos. CP17-117-000 and
CP17-118-000

Dear Ms. Bose: Please find my comments on the subject docket, enclosed. To summarize, the DEIS is inadequate for several reasons:

- Alternatives were not adequately considered.
- Avoidance and minimization of impacts to aquatic habitats were insufficient.
- Disclosure of environmental impacts was unacceptable.
- Several significant impacts were not proposed to be mitigated and some proposed mitigation was unacceptable (contaminated wetlands).
- FERC's analysis clearly ignored some of these issues.

These comments represent an overview of my concerns for the DEIS. While FERC and other agencies may expect reviewers to document specific sections, pages, paragraphs, and sentences, that represent specific concerns, the effort such a review and comment process would require represents a poor use of my time. FERC staff and their contractors are certainly capable of identifying sections, pages, paragraphs, and sentences of the DEIS on which my more general comments are based. The fact that I am not identifying such specific sections, pages, paragraphs, and sentences in the document, should not detract from the validity of my more general comments.

Sincerely,
Kenneth G. Teague, PWS, Certified Senior Ecologist
2918 Ranch Rd 620 N, #236
Austin, TX 78734
214-202-4988

F-83

20181004-5019 FERC PDF (Unofficial) 10/4/2018 9:38:01 AM	<div data-bbox="258 505 602 555"> <p>Comments Kenneth G. Teague, PWS, Certified Senior Ecologist October 3, 2018</p> </div> <div data-bbox="258 573 598 675"> <p>Driftwood LNG Project Draft Environmental Impact Statement Driftwood LNG, LLC and Driftwood Pipeline, LLC Docket Nos. CP17-117-000 and CP17-118-000 FERC/DEIS-0284D September, 2018</p> </div> <div data-bbox="258 711 919 764"> <p>SH2-1 • The DEIS does not adequately evaluate all the reasonable alternatives. SH2-2 ◦ The DEIS did not evaluate an obvious alternative to the proposed LNG facility, located 1-1.5 mi NE of the proposed site:</p> </div> <div data-bbox="340 764 858 1143"> <p>U.S. Fish and Wildlife Service National Wetlands Inventory</p> <p>Better Alternative</p> <p>September 25, 2018</p> <p>Wetlands</p> <ul style="list-style-type: none"> Estuarine and Marine Deepwater Estuarine and Marine Wetland Freshwater Emergent Wetland Freshwater Forested/Shrub Wetlands Freshwater Pond Lake Other Riverine <p>This map is for general reference only. The U.S. Fish and Wildlife Service does not warrant the accuracy or completeness of the data shown on this map. No warranty, express or implied, is made by the Service or any other agency of the Department of the Interior for any use of the data shown on this map.</p> </div> <div data-bbox="258 1151 926 1205"> <p>SH2-2 The alternative location is the undeveloped upland tract on the N side of the dredged artificial water body in the image above. It seems highly likely that this alternative would impact fewer wetlands, and may not contain contaminated soils.</p> </div> <div data-bbox="258 1222 919 1292"> <p>SH2-3 • The DEIS did not consider a pipeline alternative that would have avoided impacts to rare long leaf pine savannah. The proposed alternative only crosses this habitat a short distance, so it would seem likely that this could be avoided. Considering the rarity and high value of this habitat, a serious consideration of alternatives to avoid these impacts is warranted.</p> </div>
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Stakeholders

APPENDIX F RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH2 - Teague (Cont'd)

F-84

20181004-5019 FERC PDF (Unofficial) 10/4/2018 9:38:01 AM	
SH2-4	<ul style="list-style-type: none"> The DEIS does not appear to consider pipeline alternatives that are fully compliant with FERC's Plan and Procedures. Since Driftwood requested many deviations from FERC's Plan and Procedures, such alternatives clearly should have been considered. They would almost certainly result in fewer wetland and water body impacts.
SH2-5	<ul style="list-style-type: none"> The DEIS does not propose dredged material disposal alternatives that would avoid contaminating the aquatic environment.
SH2-6	<ul style="list-style-type: none"> The DEIS does not demonstrate adequate avoidance and minimization of impacts to aquatic habitats.
SH2-7	<ul style="list-style-type: none"> Driftwood did not consider the LNG site alternative discussed above.
SH2-8	<ul style="list-style-type: none"> Driftwood LNG did not consider alternatives that more fully (or fully) implemented FERC's Plans and Procedures. Such alternatives would have resulted in fewer impacts to wetlands and water bodies.
SH2-9	<ul style="list-style-type: none"> Driftwood did not correctly assess the suitability of dredged material for disposal in the aquatic environment. Driftwood did not propose dredged material disposal alternatives that would avoid contaminating the aquatic environment.
SH2-10	<ul style="list-style-type: none"> The DEIS does not adequately disclose the likely environmental impacts of the proposed project.
SH2-11	<ul style="list-style-type: none"> The DEIS does not include appropriate dredged material testing data and analysis, for determination of suitability for disposal in the aquatic environment.
SH2-12	<ul style="list-style-type: none"> The DEIS repeatedly acknowledges that there is an area of contaminated soils and sediments on the proposed site, some of which is proposed to be dredged and disposed of in the aquatic environment, for the purpose of creating marsh to be used as required compensatory mitigation for project impacts to similar habitats. The DEIS indicates that this dredged material was evaluated according to LDEQ's Risk Evaluation / Corrective Action Program (RECAP). While that may be appropriate for some risks, it is not the correct method for evaluating suitability for disposal in the aquatic environment. The Inland Testing Manual (ITM) details the correct procedures for evaluating the suitability of dredged material for disposal in the aquatic environment, other than in the ocean. The ITM may be downloaded here: https://www.epa.gov/cwa-404/inland-testing-manual While the DEIS cites data that cannot be used to determine suitability of the dredged material for disposal in the aquatic environment, the data indicate that the dredged material is contaminated, potentially too contaminated for disposal in the aquatic environment. These data clearly indicate a "reason to believe" that the dredged material is contaminated. Regardless, Driftwood still proposes to dispose of the dredged material in the aquatic environment, for the purpose of creating wetlands they intend to use to satisfy requirements for compensatory mitigation for impacts of the proposed project on similar wetlands. I assert that: <ul style="list-style-type: none"> This dredged material should not be permitted to be disposed of in the aquatic environment until it is properly tested according to the Inland Testing Manual, and the results provided to the public for review and comment. A Final EIS must not be produced until the dredged material is properly tested using the Inland Testing Manual, and the results are provided to the public for review and comment. Driftwood should not be allowed to claim any compensatory mitigation credit for wetlands created using this contaminated sediment, unless the latter is tested using the Inland Testing Manual procedures and is found to be acceptable for disposal in the aquatic environment.
SH2-13	

Duplicate Letter/Comments. please see the response to comments for SH1 above.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH2 - Teague (Cont'd)

F-85

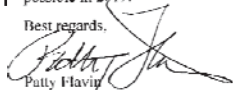
20181004-5019 FERC PDF (Unofficial) 10/4/2018 9:38:01 AM	
SH2-13	<ul style="list-style-type: none"> Driftwood should not be allowed to "mix" and "dilute" contaminated sediments with relatively clean sediments, prior to disposal. Any soils or sediments found not to be unsuitable for disposal in the aquatic environment must be disposed of properly, including potentially, upland confined disposal, or disposal in a hazardous waste disposal facility. Sampling should be conducted in a manner that allows for mapping of the contaminated soils/sediments, so that appropriate decisions may be made regarding their disposal.
SH2-14	<ul style="list-style-type: none"> The DEIS does not disclose, with any meaningful detail, the impacts of the pipeline crossings through water bodies.
SH2-15	<ul style="list-style-type: none"> The DEIS does not disclose the impacts of fragmentation of forested wetlands, caused by the proposed pipeline routing.
SH2-16	<ul style="list-style-type: none"> The DEIS does not disclose the potential impacts of proposed dredging on dissolved oxygen concentrations in bottom waters. Dredged channels often experience lower DO concentrations in bottom waters than undredged water bodies. Low DO renders aquatic habitat unsuitable for aquatic life.
SH2-17	<ul style="list-style-type: none"> The DEIS does not propose adequate environmental mitigation for project impacts <ul style="list-style-type: none"> Compensation for project impacts to wetlands by creating contaminated wetlands with contaminated dredged material does not constitute acceptable mitigation.
SH2-18	<ul style="list-style-type: none"> Due to the long time required for forested wetland restoration, the DEIS should have committed to provide mitigation for temporal impacts, which it does not.
SH2-19	<ul style="list-style-type: none"> Rather than requiring the environment to absorb the temporal impacts, Driftwood should be required to expedite restoration of herbaceous wetlands impacted by the proposed pipeline, by vegetative plantings.
SH2-20	<ul style="list-style-type: none"> No mitigation is proposed for impacts to water bodies from pipeline crossings.
SH2-21	<ul style="list-style-type: none"> The DEIS does not propose the full cost of compensatory mitigation to be borne by Driftwood <ul style="list-style-type: none"> Apparently, the DEIS indicates that Driftwood's only contribution towards required compensatory mitigation for impacts to estuarine marshes, is to contribute dredged material, some of which is contaminated. It appears that all other costs of creating the proposed mitigation marshes will be borne by the State/Federal beneficial use of dredged material program. This represents an unacceptable Federal/State subsidy of mitigation costs that is not compliant with the Mitigation Rule. <p>These comments represent an overview of my concerns for the DEIS. While FERC and other agencies may expect reviewers to document specific sections, pages, paragraphs, and sentences, that represent specific concerns, the effort such a review and comment process would require represents a poor use of my time. FERC staff and their contractors are certainly capable of identifying sections, pages, paragraphs, and sentences of the DEIS on which my more general comments are based. The fact that I am not identifying such specific sections, pages, paragraphs, and sentences in the document, should not detract from the validity of my more general comments.</p>

Duplicate Letter/Comments. please see the response to comments for SH1 above.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH3 - Flavin

F-86

	<p style="text-align: center;">ORIGINAL</p> <p>October 15, 2018</p> <p>Chairman Kevin McIntyre Federal Energy Regulatory Commission 888 First Street NE Washington, DC 20426</p> <p>Re: Driftwood LNG & Driftwood Pipeline Docket Nos. CP17-117-000 & CP17-118-000</p> <p>Dear Chairman McIntyre,</p> <p>Thank you to the FERC staff and Commissioners for its progress on reviewing the Driftwood LNG project and providing the community an opportunity to comment.</p> <p>SH3-1 The community of Southwest Louisiana is very supportive of this project as it will directly benefit from the massive investment of the \$15.2 billion-dollar facility and the projected 400 permanent, well-paid employee positions.</p> <p>SH3-2 I have had the opportunity to engage with the Tellurian team on several occasions. Most recently, I attended a reception hosted by the CEO of Tellurian in Lake Charles for nearly 100 local stakeholders and partners. I also know they proactively meet with SWLA residents through their Meet & Greet community events to keep everyone informed of their project impact and status and to receive feedback. Given these efforts, I believe they will continue to be responsible corporate citizens and make every effort to invest in and improve our community.</p> <p>SH3-3 We ask that FERC continues its timely progress on the review of this project. We hope to see Driftwood LNG be able to make its final investment decision and begin construction as soon as possible in 2019.</p> <p>Best regards,  Patty Flavin Resident of Lake Charles</p> <p>cc: Commissioner Cheryl LaFleur Commissioner Neil Chatterjee Commissioner Richard Glick</p>
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SH3-1 Thank you for your comment.

SH3-2 Thank you for your comment.

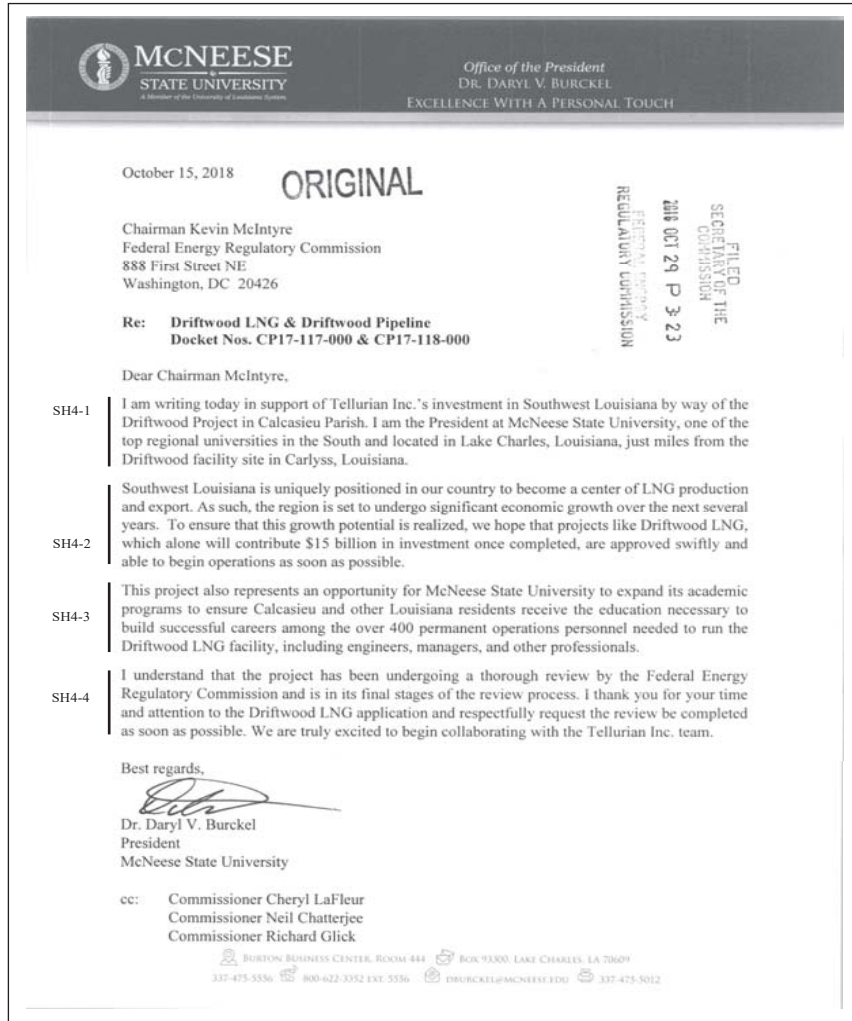
SH3-3 Thank you for your comment.

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH4 - Burckel (McNeese State University)

F-87



SH4-1 Thank you for your comment.

SH4-2 Thank you for your comment.

SH4-3 Thank you for your comment.

SH4-4 Thank you for your comment.

Stakeholders

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH5 - Clevenger

F-88

20181105-5052 FERC PDF (Unofficial) 11/5/2018 11:26:48 AM

Comments on Driftwood LNG Project Draft Environmental Impact Statement
Driftwood LNG, LLC and Driftwood Pipeline, LLC
Docket Nos. CP17-117-000 and CP17-118-000
FERC/DEIS-0284

My wife and I have lived at 7282 Olsen Road for thirty plus years and this is close to the Proposed Driftwood LNG facility and we will certainly be impacted by it. I have read the Draft Environmental Impact Statement and have several comments.

SH5-1 Noise Impact caused by pile driving. In the Executive Summary (page ES-9) it states about 48 thousand piles will be driven over a period of 20 months. Executive Summary page 18 states that pile driving will be limited to 7 am to 7 pm. It also states the impulsive noise would be clearly audible both inside and outside. Elsewhere in the Environmental impact statement it states the impact noise or hammer strike would be much greater than calculated average noise levels and would be most likely annoying to nearby residents. On Page ES-18 there is a recommendation to prepare a noise management plan with monitoring such that noise levels will not be greater than 60dBa at the nearest NSA (noisesensitive area). First; I recommend Driftwood LNG be required to develop a noise management plan before the Environmental Impact Statement can be considered complete and or approved. This plan should contain monitoring locations and noise levels which cannot be exceeded for an extended period and should also address noise spikes or impulsive noise. Noise levels above the limit for more than one hour should require the pile driving to stop and not restarted until further noise mitigation can be developed. Second the noise management plan should clearly locate the noise monitoring locations. The Executive summary on page 18 describes noise should be no greater than 60 dB at the nearest NSA (noise sensitive area) I have studied the entire document have not found these NSA locations described clearly. I did find one table which described them by bearing and distance, but this is difficult to interpret.

SH5-3 Visual Impact: The very first page acknowledges a significant visual impact to the Driftwood community. Executive Summary (ES-14) describes this in more detail and somehow makes this appear acceptable in that 'the LNG facility would be consistent with the visual character on the industrial developments along the Calcasieu ship channel. The proposed area does have some small industrial facilities but is mostly a beautiful mix of agricultural and forested land along with open bodies of water. The forested areas are a mix of very old live oaks and other native trees. To somehow deem the new facility would be visually acceptable by not being any less attractive than

SH5-1 We determined that a noise management plan prepared "before construction" would be more accurate than one prepared "before completion of the final EIS," because at that point Driftwood would have hired the contractors and determined the specific pieces of equipment to be used. This would result in more accurate estimates of noise impacts. Driftwood would be required to show that the specific pile driving equipment would not exceed the 60 dBA L_{max} . This schedule for a noise management plan would also give Driftwood opportunity to consider alternate construction methods (cast-in place piles, etc.) that would have less noise impact. We have also determined that our normal inspection procedures would be acceptable for daytime-only pile driving noise impacts.

SH5-2 As noted in the introduction to section 4.12.2, noise sensitive areas (NSAs) are locations such as residences, schools, or hospitals that are used to assess sound level increase from a project. The nearest NSAs to the LNG Facility include monitoring locations M1, M2, M3, M4, M4, and M6, and are shown on figures 4.12-1 through 4.12-5. Tables 4.12-15 and 4.12-16 provide modeled noise levels from construction activities at the LNG Facility, while tables 4.12-18 and 4.12-19 provide modeled noise levels during LNG Facility operation.

SH5-3 Construction and operation of the LNG Facility would result in a change in the visual landscape of the Project area by adding LNG facilities to a site that is currently occupied by a smaller industrial development and vegetation. However, this change in visual landscape would be consistent with the character of the surrounding area. There currently are two existing LNG facilities within three miles of the Driftwood LNG Facility, as well as several other industrial developments. In addition, the LNG Facility will be screened from view of the Driftwood Community by a 1,200-foot existing vegetated

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH5 - Clevenger (Cont'd)

F-89

20181105-5052 FERC PDF (Unofficial) 11/5/2018 11:26:48 AM

SH5-3 | other industrial facilities make no sense when it would certainly be very unattractive and visually intrusive as compared to beautiful Louisiana live oak, forests, wetlands and improved agricultural land.

SH5-4 | Executive Summary page ES-13 states the final Facility Lighting Plan for operation is under development. There comments about intentions to minimize light pollution but how can this impact be assessed when the plan is not written. I recommend a detailed lighting plan be developed for construction to final operation be developed before this Environmental Impact statement can be considered complete and or approved.

Best Regards
Gary Clevenger
7282 Olsen Road
Sulphur, LA 70602
337 513 1598

SH5-3 buffer that will be augmented where necessary in areas where the
(Cont'd) existing vegetation is thinner/lower. In addition, please see the response to comment PP1-1a.

SH5-4 The Facility Lighting Plan will include down-facing lights with shielding needed to meet regulatory standards and minimize illumination specifications. LNG Facility lighting would be chosen to minimize the horizontal emission of light away from intended areas, and shielding would help minimize impacts while providing the illumination needed to ensure safe operation. Although the plan is not finalized, based on these mitigation measures that Driftwood has committed to implementing, we conclude that impacts would be less than significant.

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH6 - Delpapa

F-90

20181030-0019 FERC PDF (Unofficial) 10/29/2018

October 23, 2018

ORIGINAL

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000


Dear Chairman McIntyre,

I am thankful for the opportunity to comment on the Driftwood LNG Project and to the FERC Staff and Commissioners and its progress on reviewing the Driftwood LNG project.

My wife and I are retired former business owners and residents of Sulphur, La. for over 40 years. We have children and grandchildren and are always interested in what is happening in our area. We have a large circle of friends, who are also now retired. About 30 years ago we established a Supper Club and we have faithfully continued since that time. We are interested, educated, voters and active in the community. We are mostly social but over the years we have invited numerous political figures and candidates to our group so that we could exchange ideas and express our thoughts. Those who have visited are State Senators and Representatives, judges, Mayors, council members and a few National candidates.

Several months ago we hosted a Tellurian Meet and Greet with 26 of our members in attendance. We were interested in how our community, schools, roads and traffic would be effected. We ended the meeting agreeing that the project would have a positive impact for us and for the future of our families. We agreed that Tellurian would be a very welcome corporate citizen to our area and over the past few months they have proven that to be correct by their generous investments in our schools and non-profit organizations.

We ask that FERC continues it timely review of this project and we hope to see construction begin soon.

Sincerely,

Jack Delpapa

cc: Commissioner Cheryl LaFleur
Commissioner Neil Chatterjee
Commissioner Richard Glick

SH6-1

SH6-1 Thank you for your comment.


Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

SH7 - Aspinwall (SOWELA Technical Community College)

F-91

20181106-0012 FERC PDF (Unofficial) 11/05/2018



OFFICE OF THE CHANCELLOR

October 15, 2018

ORIGINAL

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000


Dear Chairman McIntyre,

SH7-1 I am writing to express our continued support for Tellurian Inc.'s Driftwood LNG project in Southwest Louisiana, currently under the final stages of its environmental review at FERC. I am the Chancellor at SOWELA Technical Community College, which is one of the twelve institutions that comprise the Louisiana Community and Technical College System (LCTCS).


SH7-2 Southwest Louisiana is uniquely positioned in our state to undergo significant economic growth over the next several years. To ensure that this growth potential is realized, we hope that projects like Driftwood LNG, which alone will contribute \$15 billion in investment once completed, are approved swiftly and able to begin operations as soon as possible.

SH7-3 Driftwood LNG will be a powerful economic driver in our community, stimulating the workforce with an estimated 6,000 construction jobs and over 400 permanent operating positions. For a technical community college with quality programming for highly skilled labor tailored to the needs of local industrial projects, this type of workforce catalyst is crucial to ensure a growing academic program and successful post-education career success.

SH7-4 It is important for our local communities and organizations, like SOWELA, to realize the benefits that investments such as those that the Driftwood LNG project will bring. We respectfully request the review be thorough and completed as soon as possible. We are truly excited as we continue to collaborate with the Tellurian Inc. team. Thank you for your time and attention to the Driftwood LNG application.

Best regards,

Dr. Neil Aspinwall, Chancellor
SOWELA Technical Community College

cc: Commissioner Cheryl LaFleur
Commissioner Neil Chatterjee
Commissioner Richard Glick



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SH7-1 Thank you for your comment.

SH7-2 Thank you for your comment.

SH7-3 Thank you for your comment.

SH7-4 Thank you for your comment.

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

**SH8 - McMurry (Moss Lake Area Homeowner & Retired
Calcasieu Parish Jury Administrator)**

F-92

20181106-0011 FERC PDF (Unofficial) 11/05/2018

ORIGINAL

October 15, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre,


Thank you to the FERC staff and Commissioners for their progress on reviewing Tellurian Inc.'s Driftwood LNG project in Southwest Louisiana and accepting public comment. I am a homeowner with lakefront property on Moss Lake just north of the proposed facility site and am also retired from my position as Calcasieu Parish Police Jury Administrator. I am writing to express my support for the project and to respectfully request the Federal Energy Regulatory Commission's (FERC) prompt completion and approval.

I have had the opportunity to engage with the Tellurian team directly on several occasions through local receptions and meetings. They are proactively engaging with local residents, including the Driftwood area residents, to provide project updates and importantly to receive feedback and answer our questions. Given these efforts, I believe they are committed to being responsible corporate citizens and to making every effort to invest in and improve our community.

I believe that this project enjoys a large base of support throughout Southwest Louisiana. We view it as a cornerstone to helping our region become a center for the global LNG industry, enhancing our nation's energy security, and significantly improving the economy. Our entire region across Southwest Louisiana and Southeast Texas will directly benefit from the massive investment of the \$15.2 billion-dollar facility and the projected 400 permanent, well-paid employee positions.

It is important for our local communities and businesses to begin to realize the benefits that the Driftwood LNG project will bring. I kindly ask FERC to continue its good work and publish as scheduled a final EIS in January 2019, or even sooner if possible.

Best regards,



S. Mark McMurry
Moss Lake Area Homeowner &
Retired Calcasieu Parish Police Jury Administrator

cc: Commissioner Cheryl LaFleur
Commissioner Neil Chatterjee
Commissioner Richard Glick

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SH8-1 Thank you for your comment.

SH8-2 Thank you for your comment.

SH8-3 Thank you for your comment.

SH8-4 Thank you for your comment.

Stakeholders

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PROJECT PROPONENT
PP1 - DRIFTWOOD LNG



October 19, 2018

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

Re: Driftwood LNG LLC and Driftwood Pipeline LLC
Docket Nos. CP17-117-000 and CP17-118-000
Comments on Draft Environmental Impact Statement

Dear Ms. Bose:

On March 31, 2017, Driftwood LNG LLC ("DWLNG") and Driftwood Pipeline LLC ("DWPL") collectively, "Driftwood") filed an Application for Authorizations pursuant to Sections 3(a) and 7(c) of the Natural Gas Act with the Federal Energy Regulatory Commission ("FERC" or "Commission"). DWLNG requested authorization to site, construct, and operate liquefied natural gas export facilities on the west bank of the Calcasieu River near Carlyss, Calcasieu Parish, Louisiana. DWPL requested authorization to construct, own, operate, and maintain a new approximately 96-mile-long interstate natural gas pipeline, compression, and related facilities.

On September 14, 2018, the FERC issued the *Driftwood LNG Project Draft Environmental Impact Statement* ("DEIS") and requested comments on or before November 5, 2018. The text and table in **Attachment A** detail Driftwood's comments to the DEIS. Supporting materials related to Driftwood's comments are provided in additional attachments to this letter.

Should you have any questions about this filing, please feel free to contact me at (832) 962-4000.

Thank you,

/s/ Eryn Pullin

Eryn Pullin
Driftwood LNG LLC
Driftwood Pipeline LLC

cc: Ms. Kelley Munoz – Federal Energy Regulatory Commission
Mr. Keith Suderman – TRC Solutions
Ms. Lisa Tonery – Orrick, Herrington & Sutcliffe, LLC

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-94

<p style="text-align: center;">Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018</p>	
<p>Comment 1: Visual Impacts</p>	
PP1-1a	<p>Section 4.9.2.10 (page 4-122), the DEIS states:</p> <p><i>"Although flares located at nearby facilities range in height from 100 to 400 feet and the additional 4 flares of this height at the LNG Facility would be consistent with the existing visual landscape to the general population, the flares would be highly visible, especially at night, to nearby residences as depicted in figures 4.9-2 and 4.9-3."</i></p> <p>and</p> <p><i>"Although the visual buffers would reduce the impact on visual resources and the LNG Facility would be consistent with the visual character of the industrial developments along the Calcasieu Ship Channel, the LNG Facility would be a significant visual impact on the nearby Driftwood Community."</i></p> <p>Driftwood disagrees with the Commission's conclusion that visual impacts would be significant.</p>
	<p><u>"Artistic" vs. "Technical" Rendering</u></p> <p>The visualizations that are shown on page 4-120 (Figure 4.9-2) of the DEIS were developed in August 2017 as "artistic" renderings intended to depict how the Driftwood LNG facility generally might look during the day and night from the Driftwood Community. In these artistic visualizations, which were not technical renderings, the facility was slightly enlarged and offset to the north and east from its actual location. The artistic renderings were never intended to simulate the precise view of the LNG Facility from the northern vantage point.</p> <p>In October 2018, technical renderings were created to show the facility in the correct location and to accurately depict the community views. These accurate technical renderings of the Driftwood LNG Facility are presented in Attachment 1-1, along with a detailed explanation from the consultant who prepared the renderings of the differences between the August 2017 and October 2018 visualizations. The technical renderings show that the view of the LNG Facility from the Driftwood Community will be very limited, with the emergency flare stacks being the primary visible components. Most of the LNG Facility will not be visible from the northern vantage point, especially considering mitigation measures that will be implemented.</p> <p>The visualizations that are shown on page 4-121 (Figure 4.9-3) of the DEIS depict the facility in the proper location.</p>
	<p><u>Nighttime Visibility</u></p> <p>Driftwood disagrees that the flares "would be highly visible, especially at night, to nearby residences." The emergency flare stacks will be visible during the daytime, but at night, will not normally have any visual impacts. The only flame from the emergency flares that would be visible at night would occur during</p>

PP1-1a Based on updated renderings, which show that the LNG Facility will be effectively screened from view of the Driftwood Community by the 1,200-foot vegetated buffer, and proposed mitigation (vegetation screening to further minimize visual impact where the natural buffer where is thinner/lower) filed by Driftwood as part of this comment, we have determined that the Project will not result in a significant visual impact to the Driftwood Community. Language in sections 4.9.2.10, 5.1.9.3, and figure 4.9.2a in the final EIS has been adjusted to reflect this determination.

PP1-1b Please see the response to comment PP1-1a.

Project Proponent

APPENDIX F **RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)**

PP1 - DRIFTWOOD LNG (Cont'd)

F-95

<p style="text-align: center;">Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018</p>	
PP1-1b	<p>commissioning and emergency situations, which will be episodic and of relatively short duration. Aircraft warning lighting will be present on the flares, as required by the Federal Aviation Administration, and this type of lighting is not normally treated as a "significant impact" in NEPA analyses.¹ The nighttime lighting of the Facility is created by "downlighting," which is directing lights downward (rather than outward). The Commission notes that downlighting mitigates the nighttime impacts of the lighting at the compressor stations, but did not reach the same conclusion about downlighting at the LNG facility. The nighttime visibility impacts are significantly overstated as described in the DEIS.</p>
PP1-1c	<p><u>Consistency with Existing Viewscapes</u> The DEIS accurately concludes that the Project, including the flares, is consistent with the industrial aesthetic of the area, which includes existing industrial developments along the Calcasieu Ship Channel such as Cameron LNG and Lake Charles LNG facilities. By definition, if the impacts are consistent with existing "background" impacts, the impacts cannot also be "significant."</p>
PP1-1d	<p><u>Additional Vegetative Screening</u> Driftwood will plant trees to the south of the Driftwood Community to provide for additional screening between the LNG facility and the residences. The location of this tree planting is shown on a figure in Attachment 1-2. Renderings depicting the view from the Driftwood Community with the additional tree screening are also provided in Attachment 1-3.</p>
PP1-1e	<p><u>Inconsistency with Prior Project Evaluations</u> The Commission staff's determination that the visual impacts of the Driftwood Project are significant is inconsistent with previous significance determinations made for visual impacts for similar projects. In the final EIS for the Cameron LNG facility, the Commission concluded that the visual impact of that project would be consistent with the visual character of the industrial facilities and activities in the Calcasieu Ship Channel. The Commission therefore concluded that the Cameron LNG facility would not have a significant visual impact (Final Environmental Impact Statement on Cameron LNG, LLC's and Cameron Interstate Pipeline, LLC's Liquefaction Project, Docket Nos. CP13-25-000 and CP13-27-000, at 4-221). Similarly, the Commission concluded that the Lake Charles LNG facility would have minor to moderate (but not significant) visual impacts because the Lake Charles LNG facility is "consistent with the viewshed presented by other industrial features" (Final Environmental Impact Statement on Magnolia LNG and Lake Charles Expansion Projects, Nos. CP14-347-000 and CP14-511-000, at ES-9).</p> <p>In reviewing the Driftwood LNG facility, the Commission reached the same general conclusion, <i>i.e.</i>, that the proposed LNG facility would have visual impacts that are consistent with the existing viewshed and industrial nature of development in the area. The Commission should therefore make a finding for the Driftwood Project regarding visual impacts that is consistent with its findings related to very similar projects, such as the Cameron LNG facility and the Lake Charles LNG facility, each of which is located in the same area, the Calcasieu Ship Channel area. The visual impacts of the Cameron LNG facility are</p>

¹ Lighting requirements imposed on projects by the FAA do not trigger environmental review under NEPA as "major federal actions."

PP1-1c Please see the response to comment PP1-1a.

PP1-1d Please see the response to comment PP1-1a.

PP1-1e Please see the response to comment PP1-1a.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-96

Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018	
PP1-1e	virtually indistinguishable from the visual impacts of the proposed Driftwood LNG facility from the vantage point of residential areas to the west of the Driftwood LNG facility.
PP1-1f	Moreover, courts have reached decisions that would support the Commission's determination in the EIS for the Cameron LNG facility, that projects consistent with existing visual character of a location do not have a significant visual impact. For example, in <i>League to Save Lake Tahoe v. Tahoe Regional Planning Agency</i> , the U.S. District Court for the Eastern District of California agreed with the Tahoe Regional Planning Agency's conclusion that the addition of piers would not significantly alter the viewscape because piers and boats were part of the aesthetic character of the location. 739 F.Supp. 2d 1260 (E.D. Cal. 2010). Similarly, in <i>Vermonters for a Clean Environment, Inc. v. Madrid</i> , the U.S. District Court for Vermont concluded that the visual impacts of additional wind project on a wilderness would be limited because other windfarms were already visible from the wilderness area (73 F.Supp. 3d 417 (D. Vt. 2014)). In the case of Driftwood, the project will be located in an industrial area and industrial features already exist in the viewscape.
PP1-1g	Moreover, there is already precedent in the viewscape for the tallest visual feature of the Project: the four flares. Existing LNG facilities near the Project have similar flare stacks. In the final EIS for the Lake Charles LNG facility, FERC noted that the flares from the Lake Charles LNG facility would be visible from residences to the south and southeast of the LNG terminal—and still found that the visual impacts of the project were, at most, moderate impacts (Final Environmental Impact Statement on Magnolia LNG and Lake Charles Expansion Projects, Nos. CP14-347-000 and CP14-511-000, at ES-9). As the Commission notes in connection with the Driftwood LNG facility, the addition of four more flares will have a limited impact on the viewscape because flares are already visible.
PP1-1h	Another reason that the visual impact of the Project does not rise to the significance threshold is that the Project will not impede the view of any major historic or cultural resources. Though the Project is located on the Calcasieu River, it is located along the Calcasieu Ship Channel, which is an industrial rather than naturally scenic area. The nearby Dutch Cove and Creole Nature Trail are cultural resources that could be impacted by the Project. But the Project's impact on these resources would be minor because of the vegetative screening. The Lake Charles LNG project was similarly in close proximity to the Creole Nature Trail. In the final EIS for the Lake Charles LNG project, the Commission determined that vegetative screening and visual buffers would minimize the visual impact of the project (Final Environmental Impact Statement on Magnolia LNG and Lake Charles Expansion Projects, Nos. CP14-347-000 and CP14-511-000, at 4-98). Accordingly, the Commission should similarly conclude that the Driftwood Project's visual impacts on the Creole Nature Trail are minimal and would not diminish the quality of the viewsched.
PP1-1i	<u>Conclusion</u> The Commission's determination that visual impacts of the LNG facility are "significant" is not supported by the technical renderings and reasonable objective and consistent analysis. The impacts are consistent with the existing viewsheds and industrial use of the area, and are not materially different from the impacts of nearby projects of similar types. Driftwood believes that the visual impact on the nearby Driftwood Community is not significant because it does not alter the character of the viewscape. In

PP1-1f Please see the response to comment PP1-1a.

PP1-1g Please see the response to comment PP1-1a.

PP1-1h Please see the response to comment PP1-1a.

PP1-1i Please see the response to comment PP1-1a.

Project Proponent

APPENDIX F RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-97

<p style="text-align: center;">Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018</p>	
PP1-1i	<p>addition, however, there is nothing in the record or discussed in the DEIS to suggest that the LNG facility would impact the view of a historic of cultural resource in any significant way. And because the LNG facility is not expected to materially change the existing viewsheds or industrial use of the area, there is no reason to believe that the visual impacts would result in a diminution in the property value of nearby residences. Moreover, Driftwood's proposed vegetative screening will render any residual visual impacts less than significant.</p> <p>Comment 2: Heights of LNG Carriers</p> <p>Recommendation 31 in Section 5.2 (page 5-24) of the DEIS states:</p> <p><i>"Prior to the end of the draft EIS comment period, DWLNG shall determine if the heights of the LNG carriers will be higher than other objects that traverse the waterway and if applicable, file documentation demonstrating it has filed for an Aeronautical Study under 14 CFR Part 77 for mobile object that exceed the height requirements in 14 CFR 77.9."</i></p>
PP1-2	<p>Driftwood evaluated the maximum heights of LNG carriers that may call on the Facility and determined that the maximum height would be 193 feet above sea level. Driftwood also evaluated the route to/from the Gulf of Mexico and found no airfields, other than Southland Field, that would require notification under 14 CFR Part 77. The closest locations that an LNG carrier would come to Southland Field would be the three berth locations at the Driftwood LNG Facility. Therefore, Driftwood filed three notifications, one for each berth location, with the Federal Aviation Administration ("FAA") for an LNG carrier with a maximum height of 193 feet. Documentation of the notifications to the FAA are provided in Attachment 2. Driftwood will file the responses from the FAA when received.</p> <p>Comment 3: Pile Driving Noise</p> <p>Section 4.12.2.3 (page 4-180) of the DEIS states:</p> <p><i>"The impulsive noise of pile driving would be clearly audible outside of residences, and potentially indoors in the numerous homes near the LNG Facility. The World Health Organization has set noise goals for nighttime L_{max} noise levels of 60 dBA (World Health Organization 1999). Therefore, to ensure that impacts due to maximum pile driving noise levels at the LNG Facility would be minimized, we recommend that:</i></p> <p><i>Prior to construction, DWLNG should file with the Secretary, for review and written approval by the Director of OEP, a Pile Driving Noise Management Plan. The plan should outline a monitoring plan for sound levels (L_{eq} and L_{max}) during pile driving, and evaluation and use of noise mitigation to reduce pile driving L_{max} levels to no greater than 60 dBA at any NSAs."</i></p>
PP1-3	

PP1-2 We received the responses from FAA, as described (FERC eLibrary accession number 20181023-5263). Based on receipt of these responses, we have adjusted the language in the final EIS in sections 4.13.1.6 and 5.2, and recommendations 31 and 37 from the draft EIS have been removed.

PP1-3 We disagree. The APTA criterion was developed for intermittent Transit noise such as trolleys, trains, etc. Pile driving noise is both more impulsive in nature, and at a much higher frequency (occurrence). Therefore, we determined that 60 dBA L_{max} is more protective and would keep pile driving impacts on residents from being significant, as stated in section 4.12.2.3.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-98

	<p style="text-align: center;">Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018</p>
PP1-3	<p>Pile driving activities will be conducted from 7:00 am to 7:00 pm. The World Health Organization 60 dBA L_{max} guideline is meant to be protective of people sleeping with windows open. This guideline is not appropriate to apply to a daytime construction activity. A more appropriate guideline would be the American Public Transit Association's ("APTA's") L_{max} criterion of 70 dBA for single family homes in low density areas. The APTA's criterion was meant to be protective of annoyance due to airborne noise from train operations occurring during the daytime.</p> <p>Comment 4: Migration of Contaminated Groundwater</p> <p>The DEIS has the following text regarding contamination (page ES-7):</p> <p><i>"An area of known groundwater, soils, and sediment contamination was identified adjacent to the LNG Facility along the northern shore of the existing North Slip. It is possible that dredging activities would result in a short-duration migration of contaminated groundwater known to be present in the 20-foot and 38-foot water-bearing zones in the area along the northern shore of the existing North Slip into the Calcasieu River, where dredging operations would occur during construction of the Marine Facility berths."</i></p>
PP1-4a	<p>First, with respect to the likelihood of short-duration migration, Driftwood performed a seepage analysis to evaluate the potential impacts of dredging activities on the potential migration of groundwater contamination identified in an area north of the existing barge slip (Geosyntec Consultants, 2017, submitted by Driftwood to FERC August 22, 2017, Attachment 7-4c). The analysis consisted of a two-dimensional (2D) model of the excavation and barge slip basin to represent groundwater flow. The model shows that the barge slip basin cuts through a Silty/Clayey Sand layer and provides a hydraulic barrier to flow from the North Barge Slip. The total head remains equal to the static groundwater level resulting in seepage velocities equal to zero. These conditions indicate that a seepage gradient will not occur and that the groundwater contamination north of the barge slip is not anticipated to migrate during barge slip excavation.</p>
PP1-4b	<p>Second, known contamination does not exist off-shore in the area to be dredged. Driftwood requests the FERC clarify that areas of known contamination and area of dredging operations do not intersect. As noted in Attachment 7-4 of Driftwood's August 22, 2017, filing with FERC, the area south of sample points B-1, B-2, and MW-01 (i.e., sample points with "known contamination") and sample points below applicable criteria such as SB-08, SB-6A, and SB-1A will not be dredged. Further, the 20-Foot Zone in most areas of the North Barge Slip is no longer present as it was dredged during the initial dredging of the North Barge Slip.</p> <p>Driftwood's dredging plans near the shore are designed specifically to minimize the potential disturbance or migration of contamination. Given recent comments on our docket, this is a critical clarification consistent with data reviewed by FERC in the drafting of the EIS and are consistent with FERC's conclusion in the same paragraph of "We therefore conclude the Project would not result in unacceptable risk of an exceedance of state water quality standards."</p>

PP1-4a Text has been adjusted in section 4.3.2.1 in response to this comment.

PP1-4b We acknowledge Driftwood's clarification that the area north of sample points SB-08, SB-6A, and SB-1A will not be dredged. We recognize Driftwood's statement as a commitment they will not conduct dredging within this entire area. Text has been adjusted in the executive summary and in section 4.2.6.1, to reflect this clarification. We also have adjusted figure 4.2-3 to define the area unassessed for sediment contamination as the irregular polygon within sampling locations B1, B2, SB-9B, B17-1, SB-V2, SB-V1, SB-1A, SB06A, and SB08.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-99

Driftwood LNG Project
FERC Docket Nos. CP17-117-000 and CP17-118-000
Comments on the Draft Environmental Impact Statement
dated September 14, 2018

PP1-4c	<p>Based on the above information, Driftwood recommends that the text in the DEIS be revised to:</p> <p><i>"An area of known groundwater, soils, and sediment contamination was identified along the northern shore of the existing North Slip. It is unlikely that dredging activities may result in a short-duration migration of contaminated groundwater known to be present on-shore in the 20-foot and 38-foot water-bearing zones in the area along the northern shore of the existing North Slip into the Calcasieu River."</i></p> <p>Comment 5: Potential Contamination in Dredging Area</p> <p>Driftwood disagrees with the FERC's characterization of contamination in the planned dredging area in Section 4.2.6.1 (pages 4-18 and 4-20), which states:</p> <p><i>"It should be noted, however, that there is a small portion of the planned dredging area between onshore sampling locations (B1, B2, SB9B/9A, B17-1, and B17-2) where VOC concentrations in soils/sediments are above the limiting RECAP Soil Screening Standard and the offshore sampling locations where VOCs in soils/sediment were not detected above RECAP soil standards (SB-08, SB-6A, SB-5A, SB- 1A and SB-V1)."</i></p>	PP1-4c Please see the response to commentPP1-4a.
PP1-5a	<p>The first portion of the statement, "... a small portion of the planned dredging area between onshore sampling locations where VOC concentrations in soils/sediments are above the limiting RECAP Soil Screening Standard" is unclear. This statement seems to imply that there are VOC concentrations in the planned dredging area that are above RECAP standards. No portion of the dredging area has shown any RECAP exceedances.</p> <p>The concluding statement needs to clarify, as noted in Attachment 7-4 of Driftwood's August 22, 2017, filing with FERC, that the area south of sample points B-1, B-2, and MW-01 (i.e., sample points with "known contamination") and the area north of sample points below applicable criteria such as SB-08, SB-6A, and SB-1A will not be dredged. Therefore, known contamination does not exist off-shore in the area to be dredged.</p> <p>Clarifying these points is critical to accurately describe the extent of known contamination and Driftwood's plans to avoid dredging near these areas.</p>	PP1-5a Please see the response to commentPP1-4b.
PP1-5b	<p>Based on the above information, Driftwood recommends that the text in the DEIS be revised to:</p> <p><i>"It should be noted, however, that there is a small area between onshore sampling locations (B1, B2, SB9B/9A, B17-1, and B17-2) and the offshore sampling locations (SB-08, SB-6A, SB-5A, SB- 1A and SB-V1) where concentrations on the north side of the small area are above the limiting RECAP standard and concentrations on the south side are less than the limiting RECAP standards. Soils/sediments in this area have not been assessed, due to an existing riprap revetment, which for Project purposes, would be used as the northern sideslope of the proposed LNG berth. The area south of sample points B-1, B-2, and MW-01 (i.e., sample points with "known</i></p>	PP1-5b Please see the response to commentPP1-4b.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-100

<p style="text-align: center;">Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000 Comments on the Draft Environmental Impact Statement dated September 14, 2018</p>	
PP1_5b	<p>contamination”) and the area north of sample points below applicable criteria such as SB-08, SB-6A, and SB-1A will not be dredged.”</p> <p>Comment 6: Mobilization of Contaminated Soils/Sediments</p> <p>Driftwood disagrees with the following statements in DEIS Section 4.2.6.1 (page 4-20):</p> <p><i>“Soils and sediment affected with VOCs above RECAP standards could be transported with the dredge slurry and deposited within the BUDM. As discussed above, there is a small area of potentially affected sediment between onshore and offshore sample locations. This area of planned dredging, located immediately adjacent to the North Slip revetment, measures approximately 650 feet in length by 20 feet in width. An estimated volume of less than 2,000 cubic yards of potentially affected soils and sediment would be removed from this area. If contaminated soils and sediment is encountered during dredging (e.g., between sample locations B1, B2, SB9B/9A, B17-1, and B17-2 and sample locations SB-08, SB06A, SB05A, SB1A, or SB-V1 shown on figure 4.2-3) and transported in a slurry form to the BUDM sites, these materials would be distributed across the marsh restoration area and could potentially affect sediment quality, water quality, fisheries, wildlife, and other resources within the BUDM sites and downstream of these areas.”</i></p> <p>Consistent with the suggested revisions and reasoning in Comment 5, this language should be deleted. No areas with known contamination will be dredged. Dredging will also be avoided in areas of the sampling grid between an east-west line connecting the southernmost RECAP exceedances and an east-west line connecting the northernmost sampling locations without RECAP exceedances. Therefore, based on the sampling performed to-date, the estimated volume of potentially contaminated dredge material is zero.</p> <p>Comment 7: Groundwater Assessment in the Barge Slip</p> <p>Driftwood disagrees with the characterization in Figure 4.2-3 that much of the barge slip area is unassessed with respect to groundwater (i.e., the blue-shaded area).</p> <p>As noted by the FERC, collecting groundwater samples from underwater borings advanced within both the North Slip and the Calcasieu River presents logistical challenges. The challenges are not only logistical but are also technical. The logistical and technical challenges require the use of a more suitable method for assessing the potential for contamination in these areas.</p> <p>Driftwood undertook an appropriate sampling activity given the conditions to assess contamination migration into the dredge area. On-shore contamination was not detected in the soil/groundwater aquifer matrix material sampled in the North Slip and in the river. The samples were composite samples that included both soil and groundwater present in the targeted groundwater zone. Therefore, if contamination had migrated, it would have been detected given the detection limits for these samples.</p>

PP1-6 Please see the response to comment PP1-4b.

PP1-7 Text was adjusted in sections 4.2.6.1, 4.3.1.4, 4.3.2.1, and figure 4.2-3 was adjusted in response to this comment.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-101

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PP1-7

The investigation of the sediments and the soils/aquifer matrix within the North Slip and adjacent Calcasieu River utilized a targeted sampling approach designed to identify the off-shore locations of the soil/aquifer matrix associated with the on-shore 20-, 38-, and 50-foot groundwater zones. First, soil/aquifer samples were collected from depth intervals corresponding to the 20-Foot Zone, 38-Foot Shell Hash Zone, and the approximate top of the 50-Foot Zone. The samples analyzed were comprised of all solids and water present in the sample container. These target intervals correspond to the on-shore aquifer matrix which contains the permeable solids (e.g., sand) and groundwater contained within those permeable solids.

Reporting limits for trichloroethene and tetrachloroethene in soil/aquifer samples from offshore areas were 0.001 to 0.0059 mg/kg (ppm), which are comparable to the reporting limits of 0.001 to 0.1 mg/L (ppm) obtained from groundwater samples from onshore borings B17-1 and B17-2. Therefore, the sensitivity of the analyses for the groundwater aquifer matrix samples taken beneath the North Slip would have detected VOCs at similar or lower levels than from on-shore groundwater sampling. Further supporting the use of soil/aquifer matrix sampling to assess groundwater contamination in known groundwater bearing zones.

We request FERC remove the blue-shaded classification on Figure 4.2-3 "Area to be Dredged with Unassessed groundwater" since the groundwater has been assessed via available methods for assessing contamination in the soil/sediment/groundwater aquifer matrix.

Comment 8: Unassessed Area in the Barge Slip

PP1-8

Driftwood disagrees with the characterization in Figure 4.2-3 that a small portion of the area to be dredged has unassessed soil and groundwater.

Instead of simply connecting the dots between the results less than RECAP on the south, the southern boundary of the area should be defined by drawing a line between the northernmost results less than RECAP (SB-1A and SB-06A). In addition, the portion of the yellow area shown north of SB-V1 will not be dredged. Therefore, Figure 4.2-3 should not have any areas listed as "Areas to be Dredged with Unassessed Soil/Sediment/Groundwater" since, as stated in previous comments, Driftwood does not plan to dredge north of areas shown to be less than RECAP.

Comment 9: Construction Coordination Plan

PP1-9

Recommendation 17 in Section 5.2 (page 5-21) of the DEIS states:

"Prior to construction, DWPL shall file with the Secretary, for review and written approval by the Director of OEP, a construction coordination plan that identifies the specific construction measures (such as re-use of equipment bridges, coordinated installation of erosion control devices, or restoration commitments) that DWPL and Port Arthur Pipeline Louisiana Connector have agreed

PP1-8 We disagree with the Driftwood statement. RECAP standards for soil (allowing higher concentrations of contaminants) have been applied to groundwater samples in this area, and therefore do not provide the level of confidence indicated by Driftwood. No adjustment was made as a result of this comment. In addition, see the response to comment PP1-4b.

PP1-9 Port Arthur states that it will coordinate with Driftwood along the parallel portions of the respective projects, should construction activities take place at the same time. The recommendation has been removed from section 3.6.2.4.

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APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

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Driftwood LNG Project
FERC Docket Nos. CP17-117-000 and CP17-118-000

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to implement in the construction of the parallel portions of their respective projects between MP 5.6 and MP 16.2 in the non-exclusive easement."

PP1-9

DWPL has a number of concerns with respect to Condition 17. First, DWPL notes that the DEIS for the Port Arthur Liquefaction Project, Texas Connector Project and Louisiana Connector Project that issued September 28, 2018 (Docket Nos. CP17-20-000, et. seq.) ("Port Arthur DEIS") **does not** include a parallel provision. In this regard, [DWPL] cannot coordinate with itself and accordingly, a parallel provision must be included in the Port Arthur final EIS ("FEIS") or, in the alternative, Condition 17 should be omitted from the Driftwood FEIS. Second, Condition 17 should be amended to clarify that "Prior to construction" means prior to construction of the parallel portion of the respective projects (between MP 5.6 and MP 16.2). This would ensure that the coordination plan is developed in closer proximity to actual construction which should provide greater clarity as to the construction schedules of both projects (including whether both projects are moving forward) and the feasibility and practicality of sharing construction measures such as re-use of equipment bridges, coordinated installation of erosion control devices, or restoration commitments. Third, Condition 17 should be revised to require that any construction coordination plan include a cost-sharing provision to ensure that one party (such as DWPL) not be required to bear all the costs associated with shared construction measures, but rather that costs be fairly divided between the two companies.

Comment 10: U.S. Fish and Wildlife Service Consultation

Recommendation 20 in Section 5.2 (page 5-22) states:

"Driftwood shall not begin construction activities until:

PP1-10

- a. The FERC staff receives comments from the USFWS regarding the proposed action;*
- b. The FERC staff completes any necessary ESA section 7 consultation with the FWS; and*
- c. Driftwood has received written notification from the Director of OEP that construction or use of mitigation may begin. (section 4.8.5)"*

Driftwood completed ESA section 7 consultation with the USFWS on September 19, 2017. A copy of the letter from the USFWS is included in **Attachment 10**. Driftwood recommends deleting this recommendation.

PP1-10 We have received documentation of USFWS ESA Section 7 Clearance (FERC eLibrary accession numbers 20181019-5180 and 20181105-5080). We have not received confirmation directly from USFWS or from NMFS; therefore, consultation is ongoing.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)



Driftwood LNG LLC and Driftwood Pipeline LLC
Driftwood Project

Docket Nos. CP17-117-000 and CP17-118-000

Attachment A
Comments on Draft Environmental Impact Statement

Submitted to FERC – October 19, 2018

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				DriftwoodLNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000		
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DEIS/LNG/DPWPC Comment	
PP1-11	11	ES	ES-6	Stormwater Permit	"Land disturbing activities at the LNG Facility would be conducted according to the state's Louisiana Pollutant Discharge Elimination System construction stormwater general permit..."	LNG liquefaction facilities and transmission pipelines, such as the Driftwood LNG Facility and Driftwood Pipeline facilities, are exempt from both Federal and State stormwater permitting requirements. This exemption is detailed in the Federal Clean Water Act Section 402(b)(2) and Louisiana Administrative Code (LAC) 33:IX.2511.A.
					The cited text should be removed. Table 3.5-1 of the DEIS correctly identifies the permit exemption.	
PP1-12	12	ES	ES-6, ES-9	Dredging Mechanisms	"Driftwood would use a cutterhead suction dredge, which minimizes turbidity as the dredging site compared to mechanical dredging methods, such as (cutterhead and dragline dredges.)"	While this statement is true for the main dredge pocket, the MOF and Pioneer docks will be dredged using mechanical methods, such as a backhoe dredge or mechanical bucket dredge.
PP1-13	13	ES	ES-6, ES-9	Monitoring for turbidity	To further minimize these impacts, Driftwood has proposed monitoring of turbidity and implementation of mitigation measures if monitoring indicates that turbidity exceed the limits established by the CDE or EPA permit requirements."	Clarification: Driftwood will perform all monitoring required by permit(s).
PP1-14	14	ES	ES-6	Monitoring for turbidity	All discharged waters exiting the BUDM areas would be monitored for turbidity ensuring regulatory requirements are achieved."	Clarification: Driftwood will all perform monitoring required by permit(s).
PP1-15	15	ES	ES-7	Water quality certification	"Final monitoring and mitigation requirements for mobilization of contaminated groundwater would be subject to review and approval by LDEQ under the Clean Water Act Section 401 Water Quality Certification process, which is part of the Clean Water Act Section 404/401 permit process. Driftwood submitted a Section 404/401 Joint Permit Application in March 2017, which is currently being evaluated by the CDE and LDEQ."	The LDEQ CWA Section 401 Water Quality Certification for the Driftwood Project on September 7, 2018.
	16	ES	ES-7	Contaminated groundwater migration	"An area of known groundwater, soils, and sediment contamination was identified adjacent to the LNG Facility along the northern shore of the existing North Slip. It is possible that dredging activities would result in a short duration migration of contaminated groundwater known to be present in the 20-foot and 38-foot water-bearing zones in the area along the northern shore of the existing North Slip into the Calcasieu River, where dredging operations would occur during construction of the Marine Facility berths."	See Comment 4.
PP1-16						
PP1-17	17	ES	ES-7	BUDM Locations	"BUDM areas located between 1.75 to 5.5 miles southwest of the LNG Facility site along the north shore of the CDE."	BUDM areas are located on both (north and south) sides of the ICW.
PP1-18	18	ES	ES-11	LNNR review	"Driftwood submitted a Joint Permit Application to the CDE and LNNR in March 2017, which is currently being evaluated by the CDE and LNNR."	The LNNR issued the Coastal Use Permit for the Driftwood Project on May 20, 2018. Review by the CDE is still ongoing.
PP1-19	19	ES	ES-13	DPWVS consultation	"Because consultation with the DPWVS is ongoing, no Project construction occurs until FERC completes any necessary consultation."	See Comment 10 and Attachment 10. Consultation has been completed.

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PP1-11 We acknowledge that Driftwood asserts (in this comment and in the filing at FERC eLibrary accession number 20171109-5176) that the Amendments to the National Pollutant Discharge Elimination System (NPDES) Regulations for Storm Water Discharges Associated With Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities (40 CFR 122) and Louisiana Administrative Code (LAC) 33:IX.2511.A.2.b. provide an exemption for the liquefaction terminal from federal and state stormwater permitting requirements. We have removed reference to the NPDES and Louisiana Pollutant Discharge Elimination System (LPDES) permits for storm water discharges from the final EIS.

PP1-12 Driftwood comments reduce the proposed depth of the MOF from 30 feet to 20 feet and note that the MOF would be dredged using mechanical methods. Text was modified in the executive summary and sections 1.5.6, 2.5.2.6, 2.5.2.4, 2.5.2.6, and 4.3.3.2 to reflect this change in dredging depth and in sections 2.1.1.3, 2.5.1.4, 2.5.2.6, and 4.3.3.2 to reflect the change in dredging method. This change also affects the applicability of the turbidity modeling conducted for the cutterhead suction dredging of the marine berth; however, based on the smaller amount of material to be dredged at the MOF and the greater distance to sensitive receptors, the conclusions of the turbidity modeling in section 4.3.3.2 were not affected.

PP1-13 Text was adjusted in sections 4.3.3.2, 4.4.3.1 in response to this comment.

PP1-14 Text was adjusted in in section 2.5.2.6 in response to this comment.

PP1-15 Text was adjusted in sections 1.5.4, 4.2.6.1, 4.5.3, 5.1.3.1, 5.1.3.2, 5.1.5 and table 1.5-1 in response to this comment.

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APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-105

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000		
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DWNLG/DWPL Comment	
PP1-20	20	ES	ES-15	Recreation	"Users of the RWBs, recreational areas adjacent to the channel, and boat slips associated with the Driftwood community would be subject to channel closure during passage of the LNG carrier (approximately 20-25 minutes at a typical speed of 8 knots) and during maneuvering in the turning basin (approximately one hour). Based on one LNG carrier per day, the impact on recreational boating would be minor to moderate."	Turning and maneuvering the LNG carrier with the use of four tugs will take approximately 20 minutes to clear the channel. Therefore, the language should be revised to: "...and during maneuvering in the turning basin (approximately twenty minutes)."
						Driftwood believes that the impact on recreational boating will be minor (not minor to moderate) and that the last sentence should be revised to state, "Based on one LNG carrier per day, the impact on recreational boating would be minor."
PP1-21	21	ES	ES-15	Flare visibility	"Although flares located at nearby facilities range in height from 150 to 400 feet and the additional four flares would be consistent with the existing visual landscape to the general population, the flares would be highly visible at night to nearby residences."	Driftwood disagrees that the flares "would be highly visible at night to nearby residences." The flares are emergency use only and will have only a pilot light, which will not likely be visible to residences. The FAA required lighting on the flare stacks may be visible but will be consistent with lighting on other tall structures in the area.
PP1-22	22	ES	ES-17	Socioeconomics	"Driftwood has committed to coordinating improvements to Burton Shipyard Road... and extending Shive Road to connect directly to Olsen Road to allow traffic to avoid Burton Shipyard Road."	Driftwood evaluated the potential to connect Shive Road to Olsen Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olsen Road at a location to the south of Shive Road.
PP1-23	23	ES	ES-18	NAAQS	"During the three years of concurrent commissioning, construction and operation of the LNG facility, emissions levels may result in exceedances of the National Ambient Air Quality Standards, which could result in a potential significant impact on air quality in the immediate vicinity of the LNG facility."	According to FERC's estimates shown in Table 4.12-7, emissions during this timeframe will only be 10-15% higher than total operational emissions for two of the years 2024-2025, which is small with respect to facility emissions and negligible with respect to the total emissions in the Lake Charles area. Given the margin of compliance with respect to NAAQS standards in the Lake Charles area, this additional quantity beyond normal operating emissions is negligible and is unlikely to result in DWNLG causing or significantly contributing to a NAAQS violation.
						Further, this statement appears to contradict the following statement on page ES-21: "Therefore, the cumulative impacts from the Driftwood LNG Project on air quality, when considered in conjunction with the impacts from the projects listed above, would not be significant."
PP1-24	24	ES	ES-18, ES-19	Noise	"HDDs are proposed at 11 locations (two of the 12 HDD crossings would be installed at a single location where the mainline and a lateral pipeline run parallel), seven of which have NDAs within 0.5 mile. Driftwood has proposed sound mitigation measures at these sites, including compensation for temporary relocation of nearby residents during planned nighttime work. We have recommended that DWPL prepare and follow a noise mitigation plan for HDD entry and exit locations at six of those seven HDDs."	If residents incur temporary relocation or compensation, DWPL would not necessarily construct noise barriers as well.
PP1-25	25	ES	ES-20	Safety and Reliability	"On April 25, 2017, the USCG issued a Letter of Recommendation (LOR) to the USCG staff indicating the Calcasieu Ship Channel would be considered suitable for accommodating the type and frequency of LNG marine traffic associated with the Project, based on the USGA and in accordance with the guidance in the USCG's Navigation and Vessel Inspection Circular (NVIC) 1-11."	The correct reference for the the USCG's Navigation and Vessel Inspection Circular is (NVIC) ES-20C.
PP1-26	26	A-2	A-4	Introduction	"A 3.5-mile-long, 24-inch-diameter, seven-pipe..."	"A 3.5-mile-long, 24-inch-diameter, seven-pipe..."

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PP1-16 Please see the responses to comments PP1-4b and PP1-4c.

PP1-17 Text was adjusted in section 4.2.6.1 in response to this comment.

PP1-18 Text was adjusted in sections 1.5.1, 4.2.6.1, 4.5.3, 5.1.3.1, 5.1.3.2, and 5.1.5 in response to this comment.

PP1-19 Please see the response to comment PP1-10.

PP1-20 Text was adjusted in sections 4.9.2.9 and 5.1.9 in response to this comment.

PP1-21 Please see the response to comment PP1-1a.

PP1-22 The change in access road location for the Driftwood Community has been incorporated into the final EIS text in the executive summary and sections 1.4.1.5, 2.5.2.17, 4.10.7.1, 5.1.10, and table 4.14-2 in appendix A.

PP1-23 The EIS refers to a potential temporary and localized exceedance of the National Ambient Air Quality Standards in the immediate vicinity of the LNG Facility; however, these emissions would not be persistent at any one time during these years due to the dynamic and fluctuating nature of construction activities. As indicated, construction and especially commissioning emissions are very large. Construction emissions tend to be very low to the ground and thus have higher impacts near the construction site. Commissioning emissions, it's assumed, would be primarily flaring emissions from the flares and would be elevated, but are also very large. While operational emissions would not exceed the NAAQS, operational emissions, when

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)					Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DES Section	DES Page(s)	Topic	Statement/Information in the DES	DW/NG/DWPL Comment	
PP1-20	20	ES	ES-13	Recreation	"Users of the NWB, recreational areas adjacent to the channel, and boat slips associated with the Driftwood community would be subject to channel closures during passage of the LNG carrier (approximately 20-25 minutes at a typical speed of 8 knots) and during maneuvering in the turning basin (approximately one hour). Based on one LNG carrier per day, the impact on recreational boating would be minor to moderate."	Turning and maneuvering the LNG carrier with the use of four tugs will take approximately 20 minutes to clear the channel. Therefore, the language should be revised to "... and during maneuvering in the turning basin (approximately twenty minutes)." Driftwood believes that the impact on recreational boating will be minor (not minor to moderate) and that the last sentence should be revised to state, "Based on one LNG carrier per day, the impact on recreational boating would be minor."
PP1-21	21	ES	ES-15	View visibility	"Although flares located at nearby facilities range in height from 120 to 400 feet and the additional four flares would be consistent with the existing visual landscape to the general population, the flares would be highly visible at night to nearby residences."	Driftwood disagrees that the flares "would be highly visible at night to nearby residences." The flares are emergency use only and will have only a pilot light, which will not likely be visible to residences. The FAA-required lighting on the flare stacks may be visible but will be consistent with lighting on other tall structures in the area.
PP1-22	22	ES	ES-17	Socioeconomics	"Driftwood has committed to coordinating improvements to Burton Sheppard Road... and extending Slone Road to connect directly to Olsen Road to allow traffic to avoid Burton Sheppard Road."	Driftwood evaluated the potential to connect Slone Road to Olsen Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olsen Road at a location to the south of Slone Road.
PP1-23	23	ES	ES-18	NAAQS	"During the three years of construction, construction and operation of the LNG facility, emissions levels may result in exceedances of the National Ambient Air Quality Standards, which could result in a potential significant impact on air quality in the immediate vicinity of the LNG Facility."	According to FERC's estimates shown in Table 4.12-7, emissions during this timeframe will only be 10-15% higher than total operational emissions for two of the years 2024-2025, which is small with respect to facility emissions and negligible with respect to the total emissions in the Lake Charles area. Given the margin of compliance with respect to NAAQS standards in the Lake Charles area, the additional quantity beyond normal operating emissions is negligible and is unlikely to result in Driftwood causing or significantly contributing to a NAAQS violation.
					Further, this statement appears to contradict the following statement on page ES-21: "Therefore, the cumulative impacts from the Driftwood LNG Project on air quality, when considered in conjunction with the impacts from the projects listed above, would not be significant."	
PP1-24	24	ES	ES-18, ES-19	Noise	"HDBs are proposed at 11 locations (two of the 12 HDB drawings would be installed at a single location where the mainline and a lateral pipeline run parallel), seven of which have HDBs within 0.5 mile. Driftwood has proposed sound mitigation measures at these sites, including compensation for temporary relocation of nearby residents during planned nighttime work. We have recommended that DWPL prepare and follow a noise mitigation plan for HDB entry and exit locations at six of those seven HDBs."	If residents accept temporary inconvenience or compensation, DWPL would not necessarily construct noise barriers as well.
PP1-25	25	ES	ES-20	Safety and Reliability	"On April 25, 2017, the USCG issued a Letter of Recommendation (LOR) to CEC staff indicating the Catecau Ship Channel would be considered suitable for accommodating the type and frequency of LNG marine traffic associated with the Project, based on the USCG and in accordance with the equipment in the USCG's Navigation and Vessel Inspection Circular (NVIC) ES-201."	The correct reference for the the USCG's Navigation and Vessel Inspection Circular is (NVIC) ES-201.
PP1-26	26	4.0	4.4	Interconnection	"A 3.3-mile long six-inch-diameter lateral pipeline..."	"This should be corrected to indicate that the lateral pipeline is 3.4 miles long."
Page 2 of 14						
Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)					Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
PP1-27						
PP1-28	27	1.0	1.3	Schedule	"Subject to the receipt of FERC authorization and other applicable permits, authorizations, and approvals, Driftwood anticipates they would commence construction of the LNG Facility in 2022 and begin service of the first liquefaction plant in 2023. The first third liquefaction plant would be placed into service in 2025 or 2026. Construction of the Pipeline would commence in 2025, and the Pipeline would be placed into service in 2027."	Revise this paragraph to match the schedule outlined in Section 2.3 (page 2-26).
PP1-29						
PP1-30	28	1.4.1.1	1.11	Water Supply	"... including an existing 8-inch connection with the LNG facility property."	The existing line is 10 inches in diameter.
PP1-31	29	1.4.1.2	1.11	Power	"An estimated 200 MW of electrical power would be required for LNG Facility operations."	The updated electrical power estimate for LNG Facility operations is 167 MW.
PP1-32	30	1.4.1.3	1.11	Power	"The new 12-mile, 230 kilovolt (KV) transmission line would connect the switchyard via the existing Patton 230 KV substation and Mud Lake 230 KV substation (both are located south of the LNG Facility in Calcasieu and Cameron parishes, respectively)."	Enterpris plans have been revised and should be reflected in the following revised statement: "Transmission lines would connect the switchyard via the existing Mud Lake 230 KV substation and the planned Lake 230 KV substation. The transmission lines from those substations would be approximately 5.6 and 5.5 miles long, respectively."
PP1-33	31	1.4.1.5	1.12	Slone Road extension	"These upgrades include... extending Slone Road, thereby connecting Olsen Road to Highway 27 to provide alternative access to Highway 27 for area residents."	Driftwood evaluated the potential to connect Slone Road to Olsen Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olsen Road at a location to the south of Slone Road.
PP1-33	32	1.4.1.5	1.12	Slone Road extension	"Similarly, the Slone Road extension has been discussed in the Parish for numerous years, but funding has not been available."	Recommend revising the text to, "Similarly, an extension of Slone Road or similar alternative to connect Highway 27 with Olsen Road has been discussed in the Parish for numerous years, but funding has not been available."
PP1-34	33	1.4.1.5	1.12	Slone Road extension	"Slone Road extension... Driftwood proposes to extend Slone Road westward to Olsen Road. The extension would be about 0.31 mile and would provide residents a direct route to access Highway 27. Additional surface improvements would likely be necessary at the intersection of Slone Road and Highway 27, namely resurfacing the grade of Slone Road as it approaches Highway 27."	Driftwood evaluated the potential to connect Slone Road to Olsen Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olsen Road at a location to the south of Slone Road. The new connector road will be approximately 0.5 mile long and will be located approximately 0.4 mile north of Burton Sheppard Road. The new connector road will serve the same purpose as the originally planned Slone Road extension.
PP1-35						
PP1-36	34	1.4.1.5	1.12	Improvements to Burton Sheppard Road	"... but project coordination will be handled by the Parish and industrial users of the facility."	Parish will provide funding and perform project coordination to ensure roadway modifications are designed and constructed to provide connectivity.
PP1-37	35	1.5.4	1.10	Coastal Use Permit from LDBH	"Driftwood submitted a joint Permit Application to the COE and LDBH in March 2017. Review is ongoing."	LDBH issued the Coastal Use Permit on May 26, 2018. Review by the COE under Section 404 and Section 101 is ongoing.
PP1-37	36	1.5.7	1.20	Air Permits	"As noted in table 1.5-3 (Appendix A), LDBH has not yet issued a Title V Permit and a PSD Permit to Driftwood for the LNG Facility, and issued a record of decision permit for CS-01 on October 1, 2017."	USCG issued the PSD and Title V Air Construction/Operating Permits on July 30, 2018. The Title V Air Operating permit, which also serves as the construction authorization, for CS-01 was issued on October 1, 2017.
1.0 Proposed Action						
PP1-38	37	1.5.8	1.20	FAA requirements for wet and dry flares	"FAA determined the flares would not be hazardous to air navigation provided Driftwood follows the conditions that the Stack Wet Flares and Stack Dry Flares would be lighted according to the FAA Advisory Circular (AC) 707400-1, Chapter 1, sections 4, 8, and 12."	The Determinations of No Hazard to Air Navigation for the four flare stacks issued by the FAA on March 7, 2018, stipulate that the structures are to be marked/lighted in accordance with FAA Advisory Circular 707400-1.1 Chapter 1, Obstruction Marking and Lighting, not lights. Chapters 4, 5 (b)(4), and 12.

PP1-23 (Cont'd) considered in combination with construction and commissioning emissions, have the potential to exceed the NAAQS. When considered in the context of the larger geographic scope for cumulative impacts, this localized and temporary impact would not contribute to a significant impact on air quality. Text was adjusted in section 4.12.1 in response to this comment.

PP1-24 Therefore, we maintain our recommendation that Driftwood propose mitigation to ensure that the noise impacts are below our thresholds. If noise mitigation is not feasible, then relocation or equivalent compensation are options for consideration. Text was adjusted in section 4.12.2.3 in response to this comment.

PP1-25 Text was adjusted in sections 4.13.1.4, 4.13.1.6, and 5.1.13 in response to this comment.

PP1-26 Text was adjusted in section 1.0 response to this comment.

PP1-27 Text was adjusted in sections 1.0, 2.3, 4.10, and at additional locations of the document to provide a schedule relative to Driftwood's receipt of the FERC Order.

PP1-28 Text was adjusted in sections 1.4.1 and 2.1.1.4 in response to this comment.

PP1-29 Text was adjusted in section 1.4.1.2 in response to this comment.

PP1-30 Text was adjusted in sections 1.4.1.2, 4.14.1.3, and table 4.14-2 in appendix A in response to this comment.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

PP1-27	27	1.0	F-1	Schedule	Subject to the receipt of FERC authorization and all other applicable permits, authorizations, and approvals, Driftwood anticipates they would commence construction of the LNG Facility in 2018 and begin service of the first liquefaction plant in 2023. The fifth (final) liquefaction plant would be placed into service in 2025 or 2026. Construction of the Pipeline would commence in 2015, and the Pipeline would be placed into service in 2023.	Revises this paragraph to match the schedule outlined in Section 2.3 (page 2-20).
PP1-28	28	1.4.1.1	1-11	Water Supply	"... including an existing 8-inch connection with the LNG Facility property."	The existing line is 10 inches in diameter.
PP1-29	29	1.4.1.2	1-11	Power	"An estimated 205 MW of electrical power would be required for LNG facility operations."	The updated electrical power estimate for LNG Facility operations is 107 MW.
PP1-30	30	1.4.1.2	1-11	Power	"The new 22-mile, 230 kilovolt (KV) transmission line would connect the switchyard via the existing Patton 230 KV substation and Mud Lake 230 KV substation (which are located south of the LNG Facility in Calumet and Cameron parishes, respectively)."	Driftwood's plans have been revised and should be reflected in the following revised statement: "Transmission lines would connect the switchyard via the existing Mud Lake 230 KV substation and the planned Big Lake 230KV substation. The transmission lines from these substations would be approximately 5.6 and 5.0 miles long, respectively."
PP1-31	31	1.4.1.5	1-17	Slime Road extension	"These upgrades include... extending Slime Road, thereby connecting Clear Road to Highway 27 to provide alternative access to Highway 27 for area residents."	Driftwood evaluated the potential to connect Slime Road to Clear Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Clear Road at a location to the south of Slime Road.
PP1-32	32	1.4.1.5	1-17	Slime Road extension	"Similarly, the Slime Road extension has been discussed in the Parish for numerous years, but funding has not been available."	Recommend revising the text to, "Similarly, an extension of Slime Road or similar alternative to connect Highway 27 with Clear Road has been discussed in the Parish for numerous years, but funding has not been available."
PP1-33	33	1.4.1.5	1-17	Slime Road extension	"Slime Road extension... Driftwood proposes to extend Slime Road eastward to Clear Road. The extension would be about 0.36 mile and would provide residents a direct route to access Highway 27. Additional surface improvements would likely be necessary at the intersection of Slime Road and Highway 27, namely, resurfacing the grade of Slime Road on 8 approaches Highway 27."	Driftwood evaluated the potential to connect Slime Road to Clear Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Clear Road at a location to the south of Slime Road. The new connector road will be approximately 0.3 mile long and will be located approximately 0.4 mile north of Burton Shipyard Road. The new connector road will serve the same purpose as the originally planned Slime Road extension.
PP1-34	34	1.4.1.5	1-17	Improvements to Burton Shipyard Road	"... but project coordination will be handled by the Parish and industrial users of the roadway."	Calumet will provide funding and perform project coordination to ensure roadway modifications are designed and constructed to Parish standards.
PP1-35	35	1.5.4	1-19	Coastal Use Permit from LDEM	"Driftwood submitted a joint Permit Application to the COE and LDEM in March 2017; review is ongoing."	LDEM issued the Coastal Use Permit on May 29, 2018. Review by the COE under Section 404 and Section 10 is ongoing.
PP1-36	36	1.5.7	1-20	Air Permits	"As noted in table 1.5.1 (Appendix A), LDEQ has not yet issued a Title V permit and a PSD permit to Driftwood for the LNG facility, and issued a general construction permit for CS-01 on October 2, 2017."	LDEQ issued the PSD and Title V Air Construction/Operating Permits on July 10, 2018. The Title V Air Operating permit, which also serves as the construction authorization, for CS-01 was issued on October 2, 2017.
PP1-37	37	1.5.8	1-20	PAA requirements for wet and dry flares	"PAA determined the flares would not be hazards to air navigation provided Driftwood follows the conditions that the State Wet Piers and Stack Dry Piers would be lighted according to the FIA Advisory Circular '507460-1.1, Chapter 1, chapters 4, 6, and 12."	The Determinations of No Hazard to Air Navigation for the four flare stacks issued by the FAA on March 7, 2018, stipulate that the structures are to be marked/lighted in accordance with FIA Advisory Circular '507460-1.1, Chapter 1, Obstruction Marking and Lighting, red lights. Chapters 4, 6, and 12.

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Comments on the Driftwood LNG Project
Draft Environmental Impact Statement (Issued September 14, 2018)

Driftwood, L.L.C. and Driftwood Pipeline, LLC
CP17-117-000 and CP17-118-000

Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	Driftwood/DPWS Comment	
PP1-38	38	2.1.1.3	2-4	Heavy Hydrocarbon Removal Units	The heavier removal columns separate the hydrocarbon components and the other heavier hydrocarbon constituents as a liquid stream, which is recirculated to the condensate stabilization unit.	Missing the word "heavier" before "hydrocarbon components..."
PP1-39	39	2.1.1.3	2-5	Truck Transport	Replacement refrigerants would also be required on a periodic basis to make up refrigerant losses from the process units. On average, two tanker trucks per day would be required for the delivery of replacement refrigerants."	Refrigerant truck traffic has decreased with revised design. The current estimated average is 1-2 trucks per month.
PP1-40	40	2.1.1.3	2-6	Marine Facilities	"At each berth, a vapor management system, including a vapor arm, would be installed to transfer BOG from the LNG carrier to the BOG handling system."	Please correct to read: "At each berth, a vapor management system, including a vapor arm, would be installed to transfer BOG from the LNG carrier to the storage tanks, which in turn would go to the BOG handling system."
PP1-41	41	2.1.1.3	2-6	Materials Offloading Facilities	"The MOF would be designed to a maximum depth of 30 feet NAVD83 and would receive both Roll-On/Roll-Off and Load-On/Load-Off vessels, as well as barges."	Please correct to read: "The MOF would be designed to a maximum depth of 30 feet NAVD83, which includes 2 feet advanced maintenance dredging, and would receive both Roll-On/Roll-Off and Load-On/Load-Off barges."
PP1-42	42	2.1.1.4	2-7	Water and Waste	"Upon this 10-inch water line, there is an existing 8-inch connection to the site."	There is an existing 8-inch connection to the site.
PP1-43	43	2.1.2	2-8	Pipeline Facilities	The document consistently describes the collocation percentage as 75%.	As stated Resource Report 1 describes the collocation as 70%.
PP1-44	44	2.2.2.3	2-22	Pipeline Segments	"Following construction, a 50-foot permanent easement would be retained during operation of the Pipeline. The easement would be maintained following DOT requirements (49 CFR 192) to allow for routine pipeline inspection and maintenance."	As stated in Resource Report 1: "The permanent ROW for the Pipeline will be 50-foot wide with the exception of the area between MP 36.5 and 38.3 where a lateral will be installed and the ROW will be 65 feet wide to accommodate an expanded easement."
PP1-45	45	2.5.2.4	2-35	Dredging of the Marine Facilities and MOF	"The marine berth would be designed to a water depth of 46 feet below NAVD83, with an additional 2 feet of advance maintenance dredging plus 2 feet of over-dredge accommodation."	Please correct to read: "The marine berth would be designed to a water depth of 46 feet below NAVD83, with an additional 2 feet of advance maintenance dredging giving a total depth of 48 feet below NAVD83 in the marine berth area plus approximately 2 feet of over-dredge accommodation."
PP1-46	46	2.5.2.4	2-35	Dredging of the Marine Facilities and MOF	"The MOF would be located in a dredged slip with direct access from the Calcasieu Ship Channel. The MOF would be designed to a water depth of up to 38 feet below NAVD83, with an additional 2 feet of advance maintenance dredging plus 2 feet of over-dredge accommodation."	Please correct to read: "The MOF would be located in a dredged slip with direct access from the Calcasieu Ship Channel. The MOF would be designed to a water depth of up to 38 feet below NAVD83, with an additional 2 feet of advance maintenance dredging giving a total depth of 30 feet below NAVD83 at the MOF area plus approximately 2 feet of over-dredge accommodation."
PP1-47	47	2.5.2.6	2-36	Management of Dredged material	"With the exception of the material from the Pioneer Docks, Driftwood has elected to contribute the remaining 5.4 million yd ³ (12.2 million yd ³) of dredge material to off-site areas designated for Beneficial Use of Dredged Material (BUDM)..."	This should read: "With the exception of the material from the Pioneer Docks and MOF..."
PP1-48	48	2.5.2.6	2-36	Management of Dredged material	"Dredge material from the cutterhead section dredging of the marine berth and MOF would be pumped in a slurry form..."	The MOF will be mechanically excavated, not dredged from cutterhead section dredging. Therefore, the MOF should be removed from this statement so that it reads, "Dredged material from the cutterhead section dredging of the marine berth would be pumped in a slurry form..."

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PP1-31 Please see the response to comment PP1-22.

PP1-32 Please see the response to comment PP1-22.

PP1-33 Please see the response to comment PP1-22.

PP1-34 Text was adjusted in section 1.4.1 in response to this comment.

PP1-35 Please see the response to comment PP1-18.

PP1-36 Text was adjusted in section 1.5.7 in response to this comment.

PP1-37 Text was adjusted in section 1.5.8 in response to this comment.

PP1-38 Text was adjusted in section 2.1.1 in response to this comment.

PP1-39 Text was adjusted in section 2.1.1 in response to this comment.

PP1-40 Text was adjusted in section 2.1.1.3 in response to this comment.

PP1-41 Please see the response to comment PP1-12.

PP1-42 Text was adjusted in section 2.1.1.4 in response to this comment.

PP1-43 Text was adjusted in sections 2.1.2, 2.1.2.1, 2.2.2.3, 4.9.1.2, 4.9.2.2, 4.9.2.5, 4.9.2.10, 4.10.1.3, 4.14.2.10, and 5.1.9.3 in response to this comment.

Project Proponent

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

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Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DWNL/DWPL Comment
PP1-49	2.5.2.11	2-18	Materials and Equipment Delivery	Driftwood estimates that beginning in the third quarter of 2018 and continuing through the third quarter of 2019, about two barges per day would make deliveries at this dock and from third quarter 2018 through the second quarter of 2023, fewer deliveries would occur; between one to five barges per week.	These dates should be updated to reflect the current anticipated schedule for the project. Driftwood anticipates that barge deliveries would start in the second quarter of 2019.
	2.5.2.11	2-19	Materials and Equipment Delivery	Driftwood estimates that during the third quarter of 2018, about three to six barge deliveries would occur each week; from the fourth quarter of 2018 through the end of the second quarter of 2023, about six to eight barge deliveries would occur each week. From the third quarter of 2023 through the end of the fourth quarter of 2023, about one to two barge deliveries would occur each week.	These dates should be updated to reflect the current anticipated schedule for the project. Driftwood anticipates that barge deliveries would start in the second quarter of 2019.
PP1-50	2.5.2.17	2-41	Roadway traffic	Extending Slive Road to connect directly to Olsen Road to allow local traffic to avoid Burton Shipyard Road.	Driftwood evaluated the potential to connect Slive Road to Olsen Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olsen Road at a location to the south of Slive Road.
PP1-51	2.5.3.1	2-48	Fiber Optic	A Fiber Optic Cable (FOC) would be installed in the same ditch as the pipeline.	Should read, "A Fiber Optic Cable (FOC) may be installed in the same ditch as the pipeline."
PP1-52	2.7	2-63	Safety and Security Procedures	DWPL will develop an ERP for the LNG Facility in cooperation with federal, state, and local agencies according to DOT.	The statement incorrectly identifies DWPL as the entity to develop an ERP for the LNG Facility. The statement should read, "DWNL will develop an ERP for the LNG Facility in cooperation with federal, state, and local agencies according to DOT."
PP1-53	3.4	3-5	System Alternatives	Status and Target In-Service dates do not all reflect current information	Update table with current status of some of the listed projects.
PP1-54	4.2.1	4-2	LNG Facility	Bulkheads for the north and south berths would be constructed using a combined sheet pile wall system that uses intermediate sheet piles and bracing piles.	This type of bulkhead construction should refer to the MCH.
PP1-55	4.2.6.1	4-18, 4-20	Soil/Groundwater Drilling	It should be noted, however, that there is a small portion of the planned dredging area between sections sampling locations B1, B2, SB8A, B17-1, and B17-2 where VOC concentrations in soils/sediments are above the limiting RECAP Soil Screening Standard and the offshore sampling locations where VOCs in soils/sediment were not detected above RECAP soil standards (SB-08, SB-04, SB-5A, SB-1A and SB-1C).	See Comment 5.
PP1-56	4.2.6.1	4-18	On-shore Soil/Groundwater Assessment	Soil samples collected from borings B17-1 and B17-2 showed chlorinated VOC concentrations and benzene above limiting RECAP Soil Screening Standards to a depth of 20 feet bgs.	The language here should be revised to state, "at a depth of approximately 20 feet bgs."
PP1-57	4.2.6.1	4-19	Soil/Groundwater Assessment in Slip and River	Figure 4.2-3 Classifies much of the large pile areas as being unassessed with respect to groundwater.	See Comment 7.
PP1-58	4.2.6.1	4-19	Unassessed Areas in Barge Slip	Figure 4.2-3 Classifies small areas of potential dredging near-shore as being unassessed with respect to soil and groundwater contamination.	See Comment 8.
PP1-59	4.2.6.1	4-20	BLDM Areas	The dredged material would be pumped into shallow open water areas within the river BLDM areas, as described in section 3.2.2.4.	There are ten BLDM areas.
PP1-60	4.2.6.1	4-20	BLDM Areas	The dredged material would be pumped into shallow open water areas within the river BLDM areas, as described in section 3.2.2.4.	There are ten BLDM areas.
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Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DWNL/DWPL Comment
PP1-61	4.2.6.1	4-20	Water quality certification	Final monitoring and mitigation requirements for mobilization of contaminated sediments would be subject to review and approval by LDCQ under the CWA Section 402 Water Quality Certification process, which is part of the Section 404/403 permit process.	The LDCQ issued CWA Section 402 Water Quality Certification for the Driftwood Project on September 7, 2018.
PP1-62	4.2.6.1	4-20	Potentially Impacted Sediment	The estimated volume of less than 2,000 cubic yards of potentially affected sediment (i.e., less than one-tenth of one percent of the total volume of dredged material) would be removed from this area.	Sediments in the impacted SB-8, SB-9, and SB-10 water-bearing areas will not be dredged north of the line connecting samples SB8A and SB-1A. Therefore, the estimated volume of potentially affected sediment is zero. The goal of the dredging program is to dredge in areas shown by the study to not be impacted by on-shore contamination.
PP1-63	4.2.6.1	4-20	Potentially Impacted Sediment	Soils and sediment affected with VOCs above RECAP standards could be transported with the dredge slurry and deposited within the BLDM. As discussed above, there is a small area of potentially affected sediment between onshore and offshore sample locations. This area of planned dredging, located immediately adjacent to the North Slip mooring, measures approximately 650 feet in length by 20 feet in width. An estimated volume of less than 2,000 cubic yards of potentially affected soils and sediment would be removed from this area. If contaminated soils and sediment is encountered during dredging (i.e., between sample locations B1, B2, SB8A, B17-1, and B17-2 and sample locations SB-08, SB8A, SB8A, SB8A, SB8A, or SB-1C shown on Figure 4.2-3) and transported in a slurry form to the BLDM sites, these materials would be distributed across the near-shore restoration area and could potentially affect sediment quality, water quality, fisheries, wildlife, and other resources within the BLDM sites and downstream of these areas.	See Comment 6.
PP1-64	4.3.1.4	4-26	Potentially Impacted Sediment	It is possible, although not confirmed, that groundwater affected by chlorinated VOCs above RECAP groundwater screening standards extends into the adjacent shoreline area of the Calcasieu River and the North Slip. Both of these areas would be dredged for construction of the Marine Facility berths. Although groundwater discharging to these offshore areas may exceed the RECAP groundwater screening standards for VOCs, contaminants levels are not of sufficient concentration to have affected offshore sediments above the limiting RECAP Soil Screening Standards as shown by the analytical results of soil/sediment samples collected from borings obtained in the slide area and offshore in the river.	As stated previously, the areas to be dredged have been evaluated and have shown no evidence of migration.
PP1-65	4.3.2.1	4-27	Potential Migration of Groundwater Contamination	It is possible that dredging activities would result in a short-duration migration of contaminated groundwater resources to be present in the 20-foot and 18-foot water-bearing areas in the area along the northern shore of the North Slip into the Calcasieu River.	See Comment 4.
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PP1-56 Please see the response to comment PP1-5.

PP1-57 Text was adjusted in section 4.2.6.1 in response to this comment.

PP1-58 Please see the response to comment PP1-7.

PP1-59 Please see the response to comment PP1-8.

PP1-60 Text was adjusted in sections 4.2.6.1 and 4.3.2.1 in response to this comment.

PP1-61 Please see the response to comment PP1-15.

PP1-62 Please see the response to comment PP1-4b.

PP1-63 Please see the response to comment PP1-6.

PP1-64 Please see the response to comment PP1-4a.

PP1-65 Please see the responses to comments PP1-4a and PP1-4b.

Project Proponent

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				DriftwoodLNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Figure	Topic	Statement/Information in the DEIS	DEIS/US/DMPL Comment
PP1-66	4.3.2.1	4-36	DNAPL	"Driftwood would evaluate if sediment and soil to be designed is affected by dense non-aqueous phase liquid observed in the well screened in the 38-foot shell hash layer is below applicable criteria. The plan would be designed to sample subsurface soil at appropriate depths along the descending slope of the river within the area extending from the shore to the extent of proposed dredging within the river."	Please note that Driftwood completed this evaluation in 2018 and found no indications of DNAPL in the 38-foot shell hash.
PP1-67	4.3.3.2	4-36	Stormwater Permit	"Land disturbing activities at the LNG Facility would be conducted according to the state's Louisiana Pollutant Discharge Elimination System construction stormwater general permit..."	LNG liquefaction facilities and transmission pipelines, such as the Driftwood LNG Facility and Driftwood Pipeline facilities, are exempt from both Federal and State stormwater permitting requirements. This exemption is detailed in the Federal Clean Water Act Section 402(j)(2) and Louisiana Administrative Code [LAC] 33:IX.2011.A. The cited text should be removed. Table 1.5-1 of the DEIS correctly identifies the permit exemption.
PP1-68	4.4.3.1	4-55	Stormwater Permit	"Land disturbing activities at the LNG Facility would be conducted according to the state's Louisiana Pollutant Discharge Elimination System construction stormwater general permit..."	LNG liquefaction facilities and transmission pipelines, such as the Driftwood LNG Facility and Driftwood Pipeline facilities, are exempt from both Federal and State stormwater permitting requirements. This exemption is detailed in the Federal Clean Water Act Section 402(j)(2) and Louisiana Administrative Code [LAC] 33:IX.2011.A. The cited text should be removed. Table 1.5-1 of the DEIS correctly identifies the permit exemption.
PP1-69	4.4.3.1	4-55	Stormwater Permit	"Detailed stormwater control plans would be developed in support of the LPDES General Permit for stormwater discharges, prior to construction."	Since the facilities are exempt from stormwater permitting requirements, detailed stormwater control plans would not be developed in support of the permit.
PP1-70	4.5	4-64	Coastal Use Permit from LDNR	"Coastal wetlands are under the jurisdiction of the LDNR OCM, and impacts on coastal wetlands would require a CUP in addition to the CDE's Section 404 permit."	The LDNR OCM issued the Coastal Use Permit for the Driftwood Project on May 29, 2018.
PP1-71	4.5.2.2	4-70	Coastal Use Permit from LDNR	"Driftwood submitted a Joint Permit Application to the CDE and LDNR in March 2017; review is ongoing."	LDNR issued the Coastal Use Permit on May 29, 2018. Review under Section 404 and Section 104 is ongoing by the CDE.
PP1-72	4.7.3.1	4-88	Migratory Birds	"If preconstruction clearing does not occur and construction activities must take place during the nesting season, Driftwood would conduct..."	The U.S. Department of Interior, in a memorandum dated December 22, 2017 (M-17020), clarified incidental take under the Migratory Bird Treaty Act (MBTA). In light of this clarification, please replace the word "would" with "will attempt to."
PP1-73	4.7.3.1	4-88	Migratory Birds	"Preconstruction clearing work, if and when nesting activity is tolerated..."	See Comment 10.
PP1-74	4.8.5	4-104	USFWS consultation	"Consultation with the NMFS is complete; however, because consultation with the USFWS is ongoing, we recommend that Driftwood should not begin construction until: 1. the FERC staff receives comments from the USFWS regarding the proposed action; 2. the FERC staff completes any necessary ESA section 7 consultation with the FWS; and 3. Driftwood has received written notification from the Director of OSP that construction or use of mitigation may begin."	

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PP1-66 The referenced evaluation (FERC eLibrary Accession Number 20180305-5138) confirms that dense non-aqueous phase liquid was not identified in the 38-foot shell hash or other soil layers during the 2018 sampling effort. Text was adjusted in sections 4.3.1.4 and 4.3.2.1 in response to this comment.

PP1-67 Please see the response to comment PP1-11.

PP1-68 Please see the response to comment PP1-11.

PP1-69 Text was adjusted in section 4.4.3.1 in response to this comment. In addition, please see the response to comment PP1-11.

PP1-70 Please see the response to comment PP1-18.

PP1-71 Please see the response to comment PP1-18.

PP1-72 Section 4.3.7.1 of the EIS describes the conservation and mitigation measures for migratory birds that Driftwood presented to FERC and analyzed as part of the impact statement. We recognize the change in regulatory interpretation of the MBTA to not prohibit incidental take but maintain that prudent measures to minimize impacts on migratory birds should be employed. Section 4.3.7.1 includes a recommendation regarding mitigation measures for migratory birds.

PP1-73 Please see the response to comment PP1-72.

PP1-74 Please see the response to comment PP1-10.

Project Proponent

APPENDIX F RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	EIS Section	EIS Page(s)	Topic	Statement/Information in the EIS	DWNLNG/DWPL Comment
PP1-75	4.9.2.5	4-113	Residential Land	“...the two residences to be owned by DWPL would be demolished prior to construction.”	Please revise this sentence to: “...the two residences to be owned by DWPL would likely be demolished prior to construction.” If not demolished, Driftwood will take necessary steps to ensure that the structures can not become residences in the future.
				“Although the visual buffers would reduce the impact on visual resources and the LNG Facility would be consistent with the visual character of the industrial developments along the Calcasieu Ship Channel, the LNG Facility would be a significant visual impact on land nearby Driftwood Community.”	See Comment 1.
PP1-76	4.9.2.10	4-122	Visual Impacts	“Driftwood anticipates pre-mobilization of Pipeline construction activities to begin in mid-2019, with construction to begin in the fourth quarter of 2019.”	Driftwood's current schedule is to start pre-mobilization in early 2020, with construction to begin in the second quarter of 2020.
				“... Driftwood has committed to coordinating improvements to Burton Shipyard Road... and constructing a new connector road between Highway 27 and Olsen Road to allow traffic to avoid Burton Shipyard Road.”	Recommended revising to: “... Driftwood has committed to coordinating improvements to Burton Shipyard Road... and constructing a new connector road between Highway 27 and Olsen Road to allow local traffic to avoid Burton Shipyard Road.”
PP1-77	4.10.1.2	4-126	Pipeline	“Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2020 at an average of about one trip per three days, increasing to two trips per three days in 2021 and one trip per day in 2022.”	The dates should be corrected to match the Driftwood's latest anticipated schedule. “Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2021 at an average of about one trip per three days, increasing to two trips per three days in 2024 and one trip per day in 2025-2026.”
				“Driftwood should not begin construction activities until DWNLNG and DWPL complete survey reports and complete consultations for cultural resources.”	This statement should be split between the two applicant entities: DWNLNG and DWPL. Pending survey reports and consultations on the pipeline, which may be a result of a lack of landowner permission to complete surveys, should not delay construction of the LNG Facility. The statement should be revised to read: “DWNLNG should not begin construction until consultation for the relevant APE is complete. DWPL should not begin construction until survey reports are complete and BHPD concurrence obtained.”
PP1-78	4.10.1.1	4-133	Roads	“... Driftwood has committed to coordinating improvements to Burton Shipyard Road... and constructing a new connector road between Highway 27 and Olsen Road to allow traffic to avoid Burton Shipyard Road.”	Recommended revising to: “... Driftwood has committed to coordinating improvements to Burton Shipyard Road... and constructing a new connector road between Highway 27 and Olsen Road to allow local traffic to avoid Burton Shipyard Road.”
				“Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2020 at an average of about one trip per three days, increasing to two trips per three days in 2021 and one trip per day in 2022.”	The dates should be corrected to match the Driftwood's latest anticipated schedule. “Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2021 at an average of about one trip per three days, increasing to two trips per three days in 2024 and one trip per day in 2025-2026.”
PP1-79	4.10.1.1	4-134	Marine Traffic Impacts	“Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2020 at an average of about one trip per three days, increasing to two trips per three days in 2021 and one trip per day in 2022.”	The dates should be corrected to match the Driftwood's latest anticipated schedule. “Driftwood anticipates that Driftwood's LNG carrier traffic would begin with facility operations in 2021 at an average of about one trip per three days, increasing to two trips per three days in 2024 and one trip per day in 2025-2026.”
				“Driftwood should not begin construction activities until DWNLNG and DWPL complete survey reports and complete consultations for cultural resources.”	This statement should be split between the two applicant entities: DWNLNG and DWPL. Pending survey reports and consultations on the pipeline, which may be a result of a lack of landowner permission to complete surveys, should not delay construction of the LNG Facility. The statement should be revised to read: “DWNLNG should not begin construction until consultation for the relevant APE is complete. DWPL should not begin construction until survey reports are complete and BHPD concurrence obtained.”
PP1-80	4.11.3	4-141	Pending Surveys	“Driftwood should not begin construction activities until DWNLNG and DWPL complete survey reports and complete consultations for cultural resources.”	This statement should be split between the two applicant entities: DWNLNG and DWPL. Pending survey reports and consultations on the pipeline, which may be a result of a lack of landowner permission to complete surveys, should not delay construction of the LNG Facility. The statement should be revised to read: “DWNLNG should not begin construction until consultation for the relevant APE is complete. DWPL should not begin construction until survey reports are complete and BHPD concurrence obtained.”
				“Driftwood should not begin construction activities until DWNLNG and DWPL complete survey reports and complete consultations for cultural resources.”	This statement should be split between the two applicant entities: DWNLNG and DWPL. Pending survey reports and consultations on the pipeline, which may be a result of a lack of landowner permission to complete surveys, should not delay construction of the LNG Facility. The statement should be revised to read: “DWNLNG should not begin construction until consultation for the relevant APE is complete. DWPL should not begin construction until survey reports are complete and BHPD concurrence obtained.”

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Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	EIS Section	EIS Page(s)	Topic	Statement/Information in the EIS	DWNLNG/DWPL Comment
PP1-81	4.11.6	4-142	Compliance with National Historical Preservation Act	To ensure that FERC's responsibilities under the NHPA and to implementing regulations are met, we recommend that Driftwood should not begin construction of facilities or use of staging, storage, or temporary work areas and new or to-be-improved access roads until: a. Driftwood files with the Secretary: i. remaining cultural resources survey report(s); ii. site evaluation report(s) and avoidance/treatment plan(s), as required; and iii. comments on the cultural resources reports and plans from the Louisiana State Historic Preservation Office (and interested Indian Tribes). b. The Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties would be adversely affected. c. The FERC staff reviews and the Director of CEP approves the cultural resources reports and plans, and notifies Driftwood in writing that treatment plans/mitigation measures (including archaeological data recovery) may be implemented and/or construction may proceed. All materials filed with the Secretary containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “CUI/PROV - DO NOT RELEASE.”	This has been completed for the LNG Facility. Therefore, “Driftwood” should be changed to “DWPL”.
				“HAPs are also emitted during fossil fuel combustion and are suspected or known to cause cancer or other serious health effects such as reproductive effects or birth defects, or adverse environmental effects.”	“HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. HAP emissions are regulated by the U.S. EPA under 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, air emission limits, and work practice standards. In addition, LDEC regulates toxic air pollutants (TAPs) under Chapter 51 of LAC 33, which includes air standards (AS) for each TAP. Driftwood will comply with the applicable regulations for these pollutants.”
PP1-82	4.12.1.2	4-144	HAP Clarification	“HAPs are also emitted during fossil fuel combustion and are suspected or known to cause cancer or other serious health effects such as reproductive effects or birth defects, or adverse environmental effects.”	“HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. HAP emissions are regulated by the U.S. EPA under 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, air emission limits, and work practice standards. In addition, LDEC regulates toxic air pollutants (TAPs) under Chapter 51 of LAC 33, which includes air standards (AS) for each TAP. Driftwood will comply with the applicable regulations for these pollutants.”
				“GHGs are non-toxic and non-hazardous at normal ambient concentrations and there are no applicable ambient standards or emission limits for GHG under the CAA.”	The wording of this sentence could lead one to conclude, if taken out of context, that GHG are unregulated. Please add the following language after this sentence: “GHG are currently regulated via NHPA, GDOGA and BACT requirements provided by EPA's PSD program.”
PP1-83	4.12.1.2	4-144	GHG Clarification	“GHGs are non-toxic and non-hazardous at normal ambient concentrations and there are no applicable ambient standards or emission limits for GHG under the CAA.”	The wording of this sentence could lead one to conclude, if taken out of context, that GHG are unregulated. Please add the following language after this sentence: “GHG are currently regulated via NHPA, GDOGA and BACT requirements provided by EPA's PSD program.”
				“Nevertheless, DWNLNG has not provided information to indicate that the these emissions and the proposed emission mitigation measures are compatible with EPA's Climate Action Program.”	EPA's Climate Action Program is not a prescriptive emissions control program. The program is implemented through local governments and trade organizations. In the case of Lake Charles, the Imperial Calcasieu Regional Planning & Development Committee requested acceptance into the EPA Advance Program. BICAL works proactively with business and community leaders to identify and implement community outreach and programs that result in cleaner air. The Southwest Louisiana Air Quality Task Force developed and maintains an action plan for reducing ozone in the Lake Charles MSA. Driftwood will participate in the Southwest Louisiana Air Quality Task Force and support community efforts as appropriate.
PP1-84	4.12.1.2	4-145, 4-146	EPA's Climate Action Program	“Nevertheless, DWNLNG has not provided information to indicate that the these emissions and the proposed emission mitigation measures are compatible with EPA's Climate Action Program.”	EPA's Climate Action Program is not a prescriptive emissions control program. The program is implemented through local governments and trade organizations. In the case of Lake Charles, the Imperial Calcasieu Regional Planning & Development Committee requested acceptance into the EPA Advance Program. BICAL works proactively with business and community leaders to identify and implement community outreach and programs that result in cleaner air. The Southwest Louisiana Air Quality Task Force developed and maintains an action plan for reducing ozone in the Lake Charles MSA. Driftwood will participate in the Southwest Louisiana Air Quality Task Force and support community efforts as appropriate.
				“Nevertheless, DWNLNG has not provided information to indicate that the these emissions and the proposed emission mitigation measures are compatible with EPA's Climate Action Program.”	EPA's Climate Action Program is not a prescriptive emissions control program. The program is implemented through local governments and trade organizations. In the case of Lake Charles, the Imperial Calcasieu Regional Planning & Development Committee requested acceptance into the EPA Advance Program. BICAL works proactively with business and community leaders to identify and implement community outreach and programs that result in cleaner air. The Southwest Louisiana Air Quality Task Force developed and maintains an action plan for reducing ozone in the Lake Charles MSA. Driftwood will participate in the Southwest Louisiana Air Quality Task Force and support community efforts as appropriate.

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PP1-75 Text was adjusted in section 4.9.2.5 in response to this comment.

PP1-76 Please see the response to comment PP1-1.

PP1-77 Please see the response to comment PP1-

PP1-78 27. Please see the response to comment

PP1-79 PP1-22. Please see the response to comment

PP1-80 PP1-27.

Although the LNG Facility and Pipeline are managed by separate business entities, for purposes of NEPA analysis and compliance with section 106 of the NHPA, they are considered a single undertaking.

PP1-81

PP1-82 Please see the response to comment PP1-80

PP1-83 Thank you for your comment.

PP1-84 We have updated the language in section 4.12.1.2 of the final EIS to better explain the regulatory status of GHG emissions.

Thank you for your comment.

Project Proponent

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-112

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)					Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	EIS Section	EIS Page(s)	Topic	Statement/Information in the EIS	DWNLG/DWPL Comment	
PP1-85	4.12.1.3	4-148	NRPS ODOOR Certification	"Compliance with Subpart ODOOR would be achieved by conducting prescribed LDAR testing of compressors, equipment, and pneumatic controllers at all three compressor stations (CS-01, 02, and 03)."	We propose the following language together clearly actual rate requirements: "Compliance with Subpart ODOOR would be achieved by conducting prescribed LDAR testing of fugitive emission components, installing low or no-leakage blowdown controllers, and maintaining storage tank emissions below regulatory thresholds at all three compressor stations (CS-01, 02, and 03)."	
	4.12.1.3	4-150	PSD Meeting Clarification	"PSD is intended to prevent new air emission sources from causing the existing air quality to deteriorate beyond acceptable levels."	The statement included here would be clearer with respect to the purpose of the PSD program if revised to state: "PSD is intended to ensure that economic growth will occur in a manner consistent with the preservation of existing clean air and other clean air related resources (e.g., visibility)."	
PP1-86					According to the USFPA, "The PSD program does not prevent sources from increasing emissions; instead, PSD is designed to (1) protect public health and welfare; (2) preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value; (3) ensure that economic growth will occur in a manner consistent with the preservation of existing clean air resources; and (4) ensure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decision making process."	
PP1-87	4.12.1.3	4-151	Air Permit	"It is expected that the LERQ would include permit conditions in the respective permits to ensure compliance with these regulations."	LERQ has included permit conditions or confirmed exemption status for the above listed regulations.	
PP1-88	4.12.1.3	4-151	Correction	"If screening air dispersion modeling predicted impacts beyond source's property line are less than 7.5 percent of the applicable NER, the sources deemed comply with the TAP rules. If the predicted impact exceeds the NER, further analysis is required."	The air dispersion modeling results from the TAP analysis are compared to ambient air standards (AAS) not the NER as implied here. Please update to "If screening air dispersion modeling predicted impacts beyond source's property line are less than 7.5 percent of the applicable AAS, the sources is deemed comply with the TAP rules. If the predicted impact exceeds the AAS, further analysis is required."	
PP1-89	4.12.1.3	4-151	Correction	"Screening analysis results beyond the LNG Facility's property line was less than 7.5 percent of the applicable NER for each TAP."	For the same reasons given in the previous comment, the language should be updated as follows: "Screening analysis results beyond the LNG Facility's property line was less than 7.5 percent of the applicable AAS for each TAP."	
PP1-90	4.12.1.4	4-156	NAQS/Construction Emissions	"During the three years of concurrent commissioning, construction, and operation of the LNG Facility, emissions levels may result in exceedances of the NAQS, which could result in a potential significant impact on air quality in the immediate vicinity of the LNG Facility."	According to FERC's estimates shown in Table 4.12-7, emissions during this timeframe will only be 10-15% higher than total operational emissions for two of the years 2024-2025, which is small with respect to facility emissions and negligible with respect to the total emissions in the Lake Charles area. Given the margin of compliance with respect to NAQS standards in the Lake Charles area, this additional quantity beyond normal operating emissions is negligible and is unlikely to result in DWNLG causing or significantly contributing to a NAQS violation. Further, this statement appears to contradict the following statement on page E5-22: "Therefore, the cumulative impacts from the Driftwood LNG Project on air quality, when considered in conjunction with the impacts from the projects listed above, would not be significant."	

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Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)					Driftwood LNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	EIS Section	EIS Page(s)	Topic	Statement/Information in the EIS	DWNLG/DWPL Comment	
PP1-91	4.12.1.5	4-155, 4-157	Source name corrections	Several sources that are planned for emergency use are not noted as such in the Operating Air Emissions source table.	<ul style="list-style-type: none">one essential generator (emergency use)two wet flares (emergency use)two dry flares (emergency use)one main generator (emergency use)control room generator (emergency use)boiling condenser generator (emergency use)	
	4.12.1.5	4-156	Operating Air Emissions	"The emission sources associated with the five liquefaction plants within the LNG Facility are expected to operate continuously. Each of the liquefaction plants would include the following emission sources: ... NR compressor gas turbines; ... one hot oil heater; ... one essential generator; and ... one thermal oxidizer."	The wording states that these sources will operate continuously but the hot oil heater and essential generator do not. Suggested Revision: "The emission sources associated with the five liquefaction plants within the LNG Facility are expected to operate continuously. Each of the liquefaction plants would include the following emission sources: ... NR compressor gas turbines; ... one hot oil heater (Start-up); ... one essential generator (Emergency); and ... one thermal oxidizer."	
PP1-92						
PP1-93	4.12.1.5	4-156	Source name corrections	"one condensate vapor flare"	The condensate vapor flare device will be a thermal oxidizer. As proposed to an open flare. Please update the name to: "one condensate thermal oxidizer."	
PP1-94	4.12.1.2	4-144	NAQS	"Louisiana has adopted the NAQS and does not have state-level ambient air quality standards"	Please revise as follows: "While Louisiana does have state-level ambient air quality standards for toxic air pollutants, Louisiana has adopted the NAQS and does not have state-level ambient air quality standards for ozone pollution."	
PP1-95	4.12.1.5	4-157	Tier 4 Engines	"DWNLG has stated that that the tug boats would be utilize Tier 4 engines equipped with SCR."	"The tug boats will meet Tier 4 engine emission limits using SCR or other technology providing Tier 4 emissions levels."	
PP1-96	4.12.1.4	4-155	Use of Tier 4 Engines	"DWPL stated that its contractors and construction management team would ensure the diesel equipment is properly maintained and operated so as to minimize exhaust emissions, but have not committed to using only construction equipment with Tier 4 engines."	When practical, Tier 4 engines will be used. Given the timing of the project, Tier 4 engines are more likely to be used. However, committing to use only Tier 4 engines would be impractical due to uncertainty with equipment availability.	
PP1-97	4.12.1.5	4-160	NAQS Results Table	Table 4.12-6 - Screening Model Concentration (µg/m ³) 1-hour NO ₂ - PB-7	The correct Screening Model Concentration for 1-hour NO ₂ in the LNG Facility and Vessel Dispersion modeling is 37.4 µg/m ³ .	
PP1-98	4.12.1.5	4-161	NAQS/Construction Emissions	"During the three years of concurrent commissioning, construction, and operation of the LNG Facility, emissions levels may result in exceedances of the NAQS, which could result in a potential significant impact on air quality in the immediate vicinity of the LNG Facility."	According to FERC's estimates shown in Table 4.12-7, emissions during this timeframe will only be 10-15% higher than total operational emissions for two of the years 2024-2025, which is small with respect to facility emissions and negligible with respect to the total emissions in the Lake Charles area. Given the margin of compliance with respect to NAQS standards in the Lake Charles area, this additional quantity beyond normal operating emissions is negligible and is unlikely to result in DWNLG causing or significantly contributing to a NAQS violation. Further, this statement appears to contradict the following statement on page E5-21: "Therefore, the cumulative impacts from the Driftwood LNG Project on air quality, when considered in conjunction with the impacts from the projects listed above, would not be significant."	

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PP1-85 Thank you for your comment.

PP1-86 Thank you for your comment.

PP1-87 Thank you for your comment.

PP1-88 Text was adjusted in section 4.12.1.3 in response to this comment.

PP1-89 Text was adjusted in section 4.12.1.3 in response to this comment.

PP1-90 Please see the response to comment PP1-23.

PP1-91 Text was adjusted in section 4.12.1.5 in response to this comment.

PP1-92 Text was adjusted in section 4.12.1.5 in response to this comment.

PP1-93 Text was adjusted in section 4.12.1.5 in response to this comment.

PP1-94 Text was adjusted in section 4.12.1.2 in response to this comment.

PP1-95 Text was adjusted in table 4.12-4 in response to this comment.

PP1-96 Thank you for your comment.

PP1-97 We have updated the language in table 4.12-6 of the final EIS to reflect this clarification.

PP1-98 Please see the response to comment PP1-23.

Project Proponent

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

F-113

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				DriftwoodLNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DW/LNG/DWPL Comment
PP1-99	4.12.2.3	4-180	Pile Driving Noise	"The impulsive noise of pile driving would be clearly audible outside of residences, and potentially indoors in the numerous homes near the LNG Facility. The World Health Organization has set noise goals for nighttime Lmax noise levels of 60 dBA (World Health Organization 1999). Therefore, to ensure that impacts due to maximum pile driving noise levels at the LNG Facility would be minimized, we recommend that: Prior to construction, DW/LNG should file with the Secretary, for review and written approval by the Director of CDP, a Pile Driving Noise Management Plan. The plan should outline a monitoring plan for sound levels (Leq and Lmax) during pile driving, and evaluation and use of noise mitigation to reduce pile driving Lmax levels to no greater than 55 dBA at any NSAs."	See Comment 3.
	4.12.2.3	4-181	Construction Noise Impacts and Mitigation - HDD Pipeline Installation	"Driftwood proposed installing sound barriers at HDD A1, A2 and A4 to reduce noise levels. The sound barrier heights would range from 12 feet to 20 feet; however, even though implementation of the sound barriers, noise levels would not be reduced to below 55 dBA Ldn for 24-hour HDD activity at these HDD sites. For these HDDs, Driftwood has proposed, in addition to the sound barriers, to offer compensation for temporary relocation for planned nighttime work to residents of NSAs where predicted sound levels exceed 55 dBA Ldn. For HDD2 and HDD3, Driftwood has also proposed utilizing sound barriers but did not specify barrier heights. Mitigated HDD noise levels at HDD2 and HDD3 were shown to meet our criteria. No mitigation was proposed for HDD A6."	If residents accept temporary relocation or compensation, DWPL would not necessarily construct noise barriers as well.
PP1-100	4.12.2.3	4-183	Construction Noise Impacts and Mitigation - HDD Pipeline Installation	"To ensure that HDD noise levels are reduced to the extent practical, Driftwood has committed to use the following noise mitigation measures at HDD sites: HDD A1 Entry Site - 20-foot tall sound barriers HDD A2 Entry Site - 12-foot tall sound barriers HDD A4 Entry Site - 16-foot tall sound barriers HDD2 - sound barriers HDD3 - sound barriers Limit, to the extent possible, HDD activities to a single 12-hour daytime shift. If nighttime work is unavoidable, such as during pile/buck, offer temporary compensation or relocation for the night work period to the residents of those NSAs at which predicted sound levels exceed 55 dBA Ldn."	If residents accept temporary relocation or compensation, DWPL would not necessarily construct noise barriers as well.
PP1-101	4.12.2.3	4-183	Construction Noise Impacts and Mitigation - HDD Pipeline Installation	"To ensure that HDD noise levels are reduced to the extent practical, Driftwood has committed to use the following noise mitigation measures at HDD sites: HDD A1 Entry Site - 20-foot tall sound barriers HDD A2 Entry Site - 12-foot tall sound barriers HDD A4 Entry Site - 16-foot tall sound barriers HDD2 - sound barriers HDD3 - sound barriers Limit, to the extent possible, HDD activities to a single 12-hour daytime shift. If nighttime work is unavoidable, such as during pile/buck, offer temporary compensation or relocation for the night work period to the residents of those NSAs at which predicted sound levels exceed 55 dBA Ldn."	If residents accept temporary relocation or compensation, DWPL would not necessarily construct noise barriers as well.
PP1-102	4.13.1.4	4-199	LNG Carrier Routes and Hazardous Analysis	"The LNG carrier then would travel northward approximately 12 nautical miles toward the Cameron Jetty, which marks the mouth of the Calcasieu River."	Travel distance is 27.8 nautical miles from pilot boarding station to Cameron Jetty or 32 statute miles.
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Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				DriftwoodLNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DW/LNG/DWPL Comment
PP1-103	4.13.1.5	4-211	Engineering Review	"Once the design has been subjected to a HACOP review, the design development team leads changes in the facility design, operations, documentation, and personnel. DW/LNG would evaluate these changes to ensure that the safety, health, and environmental risks arising from these changes are addressed and controlled based on its change management procedures. If adopted into the order, resolutions of the recommendations generated by the HACOP review would be monitored by the EDC staff."	These sentences are repeated with slight differences. One set of sentences should be removed.
PP1-104	4.13.1.5	4-222	Refrigerant Tracking	"DW/LNG states on a periodic basis, two tanker trucks per week may be required for replacement of refrigerants."	The current estimate is for 3-2 tanker trucks per month to replace refrigerants.
PP1-105	4.13.1.5	4-223	Process Design Review	"For example, aqueous ammonia at 19 percent by volume would be used as part of the emission control system associated with the process."	Aqueous ammonia is 10% by weight, not volume.
PP1-106	4.13.1.5	4-227	Clarification needed	"In addition, we generally recommend that companies provide additional information on final design of the impoundment systems where details."	The sentence is unclear and appears unfinished.
PP1-107	4.14.2.8	4-280	USFWS consultation	"Consultation has been received by the NMFS; however, consultation with USFWS is ongoing."	See Comment 10.
PP1-108	5.1.3.1	5-3	Water quality certification	"Also as noted for such resources, final monitoring and mitigation requirements for modification of contaminated groundwater would be subject to review and approval by USFWS under the Section 401 Water Quality Certification process. As required by Federal law, Driftwood submitted a Section 404/401 Joint Permit Application in March 2017, which is under review."	The LMDC CWA Section 401 Water Quality Certification for the Driftwood Project on September 7, 2018.
PP1-109	5.1.3.2	5-3	Coastal Use Permit from LONR	"Driftwood submitted a Joint Permit Application to the CDE and LONR in March 2017, which is currently under review."	While review under Section 404 and Section 10 is ongoing by the CDE, LONR issued their Coastal Use Permit on May 29, 2018.
PP1-110	5.1.3.2	5-3	Stormwater Permit	"Undisturbing activities would be conducted according to the state's LUPON Construction Stormwater General Permit."	LNG liquefaction facilities and transmission pipelines, such as the Driftwood LNG Facility and Driftwood Pipeline facilities, are exempt from both Federal and State stormwater permitting requirements. This exemption is detailed in the Federal Clean Water Act Section 402(b)(2) and California Administrative Code (CAC) 10.15.232.1.A.
PP1-110					The cited text should be removed. Table 1.5-1 of the DEIS correctly identifies the permit exemption.
PP1-111	5.1.5	5-6	Coastal Use Permit from LONR	"Driftwood submitted a Joint Permit Application to the CDE and LONR, which is currently under review."	LONR issued the Coastal Use Permit on May 29, 2018. Review under Section 404 and Section 10 is ongoing by the CDE.
PP1-112	5.1.8	5-8	USFWS consultation	"Because consultation with the USFWS is ongoing, we are recommending that the EDC staff complete any necessary consultation prior to construction."	See Comment 10.
PP1-113	5.1.9.3	5-16	Visual Resources	"DW/LNG would maintain vegetation and trees at a height of 25 to 30 feet north of the Driftwood community, as well as vegetation and trees near Dutch Cove cemetery adjacent to the LNG Facility as natural screening."	Note that the vegetation and trees to be maintained are at the Dutch Cove cemetery.
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PP1-99 Please see the response to comment PP1-3.

PP1-100 Please see the response to comment PP1-24.

PP1-101 Please see the response to comment PP1-24.

PP1-102 Text was adjusted in section 4.13.1.4 in response to this comment.

PP1-103 Text was adjusted in section 4.13.1.5 in response to this comment.

PP1-104 Please see the response to comment PP1-39.

PP1-105 Text was adjusted in section 1.13.1.5 in response to this comment.

PP1-106 Text was adjusted in section 4.13.1.5 in response to this comment.

PP1-107 Please see the response to comment PP1-10.

PP1-108 Please see the response to comment PP1-15.

PP1-109 Please see the response to comment PP1-18.

PP1-110 Please see the response to comment PP1-11.

PP1-111 Please see the response to comment PP1-18.

PP1-112 Please see the response to comment PP1-10.

PP1-113 Text was adjusted in sections 4.9.2.10, 4.14.2.9, and 5.1.9.3 in response to this comment.

Project Proponent

APPENDIX F RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Comments on the Driftwood LNG Project Draft Environmental Impact Statement (Issued September 14, 2018)				DriftwoodLNG, LLC and Driftwood Pipeline, LLC CP17-117-000 and CP17-118-000	
Comment No.	DEIS Section	DEIS Page(s)	Topic	Statement/Information in the DEIS	DEIS/NOI/DEAP Comment
PP1-114	5.1.10	5-11	Socioeconomics	"...and extending Stone Road to connect directly to Olson Road to allow local traffic to avoid Burton Shipyard Road."	Driftwood evaluated the potential to connect Stone Road to Olson Road but found that it was not a viable option. An alternative has been developed to connect Highway 27 directly to Olson Road at a location to the south of Stone Road.
	5.1.14	5-15	Grammar correction	"As discussed in detail in section 5.14, the potential for the LNG facility and Pipeline to significantly contribute to cumulative impacts from the is not anticipated for the following environmental resources:..."	The words "from the" should be removed from the sentence so that the sentence reads correctly.
PP1-115	5.2	5-21	Recommendations 17	"Prior to construction, DWPPL shall file with the Secretary, for review and written approval by the Director of DEP, a construction coordination plan that identifies the specific construction measures (such as re-use of equipment bridges, coordinated installation of erosion control devices, or restoration commitments) that DWPPL and Port Arthur Pipeline Louisiana Connector have agreed to implement in the construction of the parallel portions of their respective projects between MAP 5.6 and MAP 56.2 in the non-exclusive easement." (section 5.6.2.4)	See Comment 9.
	5.2	5-22	Recommendation 20	"Driftwood should not begin construction until: 1. the FERC staff receives comments from the DEP/DEP regarding the proposed action; 2. the FERC staff completes any necessary ESA section 7 consultation with the FWS; and 3. Driftwood has received written notification from the Director of DEP that construction or use of mitigation may begin."	See Comment 10.
PP1-116	5.2	5-24	Recommendation 31	"Prior to the end of the draft EIS comment period, Driftwood shall determine the heights of the LNG carriers will be higher than other objects that traverse the waterway and if applicable, the documentation demonstrating it has filed for an Aeronautical Study under 14 CFR Part 77 for mobile objects that exceed the height requirements in 14 CFR 77.9."	See Comment 2.
	110	Table 13-1	A-5 Permits and Consultations	The table indicates that Water Quality Certification from the LDEQ is expected to be received in December 2018.	Water Quality Certification was received on September 7, 2018.

PP1-114 Please see the response to comment PP1-22.

PP1-115 Text was adjusted in section 5.1.14 in response to this comment.

PP1-116 Please see the response to comment PP1-9.

PP1-117 Please see the response to comment PP1-10.

PP1-118 Please see the response to comment PP1-2.

PP1-119 Text was adjusted in sections 1.5.1, 4.2.6.1, 4.5.3, 5.1.3.1, 5.1.3.2, and 5.1.5 in response to this comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP1 - DRIFTWOOD LNG (Cont'd)

Certificate of Service

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

Dated at Houston, Texas this 19th day of October 2018.

Thank you,

/s/ Eryn Pullin

Eryn Pullin
Driftwood LNG LLC
Driftwood Pipeline LLC

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP2 - DRIFTWOOD LNG

F-116

	<p>Driftwood LNG Project FERC Docket Nos. CP17-117-000 and CP17-118-000</p> <p>Supplemental Comments on the Draft Environmental Impact Statement dated September 14, 2018</p> <p>Comment 120: Comment from National Marine Fisheries Service</p> <p>Mr. Brandon Howard with the National Marine Fisheries Service ("NMFS") filed comments on the Draft Environmental Impact Statement ("EIS") on October 15, 2018. The comments included recommendations to provide a mitigation plan, to provide a description and drawing of what will be located in fill areas, and to provide a conclusion regarding Essential Fish Habitat ("EFH") impacts.</p> <p>PP2-1 Driftwood coordinated with Mr. Howard and provided him with a summary of Driftwood's previous coordination with the NMFS and a copy of the NMFS letter from October 3, 2017, concurring with the determination that construction of the Driftwood LNG Project would not result in significant adverse impacts on EFH. Mr. Howard responded to Driftwood and acknowledged that the mitigation plan had been reviewed previously by the NMFS and that no further consultation on EFH was necessary unless there were substantial project changes.</p> <p>A copy of the e-mail correspondence with Mr. Brandon Howard is provided in Attachment 120.</p> <p>Comment 121: Construction Noise</p> <p>Section 2.3.1 (Page 2-29) states the following:</p> <p><i>"Except for dredging and pile driving activities, construction activities at the LNG Facility site would primarily be conducted between 7:00 a.m. and 5:30 p.m. Dredging would be conducted 24 hours a day. Pile driving with an impact driver be conducted only during daytime hours, between 7:00 a.m. and 7:00 p.m."</i></p> <p>While it is true that construction activities at the LNG Facility site would primarily be conducted between 7:00 am and 5:30 pm, Driftwood wishes to make clear that there will be periods when construction activities will extend into the evening hours and there will likely be periods when certain construction activities will need to be conducted during nighttime hours.</p> <p>PP2-2 Driftwood conducted an analysis of nighttime noise impacts on nearby noise sensitive areas (NSAs) by developing a list of potential nighttime work construction activities and locations of those activities during the peak month of construction, when the greatest number of workers and activities are forecasted to occur. The analysis is presented in Attachment 121 and shows that peak nighttime construction activities will contribute less than 48.6 dBA L_{eq} (equivalent to 55 dBA L_{dn} for a continuous noise source) at all nearby NSAs. Therefore, Driftwood recommends that the FERC clarify the Environmental Impact Statement to indicate that construction activities may occur 24 hours per day and that Driftwood's noise analysis has shown that nighttime construction noise is not predicted to exceed the FERC's noise threshold at nearby NSAs.</p> <p>Comment 122: Recommendation 84</p>
--	--

PP2-1 Status of this consultation is correctly reflected in table 1.5-1, appendix A, of the EIS.

PP2-2 Driftwood has filed a construction noise analysis (FERC eLibrary accession number 20181105-5080) showing that, after the berm is constructed, with peak workers and equipment on site, noise impacts at the NSAs would be below 55 dBA L_{dn}. This analysis shows primarily construction using small equipment work and may not be indicative of noise for other phases of construction (earth moving, grading, etc.) with different or larger equipment types. The analysis also included the berm, which would mitigate noise impacts. However, the analysis does not consider noise impacts at other phases of construction such as during grading/filling/site preparation. Consequently, we cannot determine that these activities are acceptable for night construction.

If Driftwood would construct into later hours, we are recommending they file additional information to ensure that the many residents in the NSAs are not exposed to excessive noise outside of the previously indicated timeframe. Thus, to ensure that the noise impacts remain below 55 dBA during construction after 5:30 p.m. and during nighttime hours for all construction activities including grading/filling/site preparation, we have added a recommendation to the document in Section 4.12.2.3 that at least 30 days prior to starting any construction activities at the LNG Facility between 5:30 p.m. and 7 a.m., Driftwood should prepare and file a Night Time Noise Mitigation and Monitoring Plan that details the noise mitigation that it would install (such as the berm, equipment limitations, low-noise back-up alarms, etc.). The Plan should also provide for notification to nearby NSAs/residents of pending night time construction and indicate noise monitoring measure to ensure compliance.

Project Proponent

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

PP2 - DRIFTWOOD LNG (Cont'd)

F-117

Driftwood LNG Project
FERC Docket Nos. CP17-117-000 and CP17-118-000

Supplemental Comments on the Draft Environmental Impact Statement
dated September 14, 2018

Recommendation 84 in Section 5.2 (Page 5-30) states:

"Prior to construction of final design, DWLNG shall file a detailed quantitative analysis to demonstrate that adequate thermal mitigation would be provided for each significant component within the 4,000 BTU/ft²-hr zone from an impoundment, or provide an analysis that assess the consequence of pressure vessel bursts and boiling liquid expanding vapor explosions. Trucks at the truck transfer station shall be included in the analysis. Passive mitigation shall be supported by calculations for the thickness limiting temperature rise and active mitigation shall be justified with calculations demonstrating flow rates and durations of any cooling water will mitigate the heat absorbed by the vessel."

On May 31, 2018, DWLNG submitted a response to the FERC's May 4, 2018 data request for additional thermal radiation analysis evaluating the 4,000 Btu/ft²-hr impact of impoundment pool fires. While there is no code requirement for completing such studies, DWLNG performed additional modeling and analysis work to evaluate the consequences of worse-case PVBs and BLEVEs. The submitted analysis demonstrated that in all cases there were no offsite impacts. Any future changes to the design and/or layout of the facility would require a thermal radiation review as part of the internal management of change process, and that information would be provided to the FERC. As such, DWLNG believes that this recommendation has already been adequately answered for the current design and layout and requests that the recommendation be removed from the EIS.

PP2-3 On May 31, 2018, DWLNG filed an initial analysis that evaluated potential BLEVE and pressure vessel burst (PVB) impacts. The analysis did not provide adequate justification to dismiss certain scenarios and lacked comprehensive calculations for assertions provided in Driftwood's May 31, 2018 (FERC eLibrary accession no. 20180531-5325). FERC staff considers BLEVE and PVB mitigation and impacts to be an important aspect of the facility's layers of protection and requires a more detailed quantified analysis. Therefore, the recommendation remains in the final EIS document.

Project Proponent


APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

ELECTED OFFICIAL

EL1 - Barras (LA house of Representatives)

20181026-0022 FERC PDF (Unofficial) 10/26/2018
CP 17-117, CP 17-118

TAYLOR F. BARRAS
SPEAKER



POST OFFICE BOX 94062
BATON ROUGE, LOUISIANA 70804
PHONE 225-342-7263
FAX 225-342-8336

STATE OF LOUISIANA
HOUSE OF REPRESENTATIVES

October 19, 2018

The Honorable Kevin McIntyre
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

OFFICE OF
EXTERNAL AFFAIRS
MAY OCT 25 P 3 45
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Chairman McIntyre:


EL1-1 On September 14, 2018, the Federal Energy Regulatory Commission (FERC) issued a Notice of Availability of the Draft Environmental Impact Statement (DEIS) for the Driftwood LNG Project. I am submitting these comments in support of this significant project that will benefit the State of Louisiana.

EL1-2 According to Tellurian, construction at the Driftwood site near Lake Charles will require a capital investment of \$15 billion and directly employ 6,500 workers over five years. Once built, Driftwood would create 400 permanent good-paying jobs over decades of operations. These represent major opportunities to expand economic activity and job growth in southwestern Louisiana.

EL1-3 In addition, Driftwood LNG will make Louisiana and the U.S. economies more competitive. Exports will expand markets for our surplus natural gas resources, generating new wealth and investment across the country. In Louisiana alone, a study found that the Driftwood project will create 4,000 long-term jobs.

EL1-4 The issuance of the DEIS is a critical milestone in the FERC permitting process. The FERC staff has been thorough in its assessment of the potential impacts of the Driftwood Project, and at several community meetings FERC staff has witnessed the strong local support for the jobs and opportunity this project promises.

EL1-5 I urge the FERC to complete its final review of the Driftwood LNG Project in a timely manner, and consistent with all applicable laws and regulations, so that project stakeholders can move forward.

Sincerely,

Taylor F. Barras

TFB:esm

EL1-1 Thank you for your comment.

EL1-2 Thank you for your comment.

EL1-4 Thank you for your comment. Section 4.10.2 notes that the LNG Facility and Pipeline will create approximately 539 long-term positions. The economic study noted annual creation of 3,934 direct and indirect jobs associated with construction spending, not operations.

EL1-5 Thank you for your comment.


Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL2 - Danahay (Sulphur Mayor)

F-119

20181030-0020 FERC PDF (Unofficial) 10/29/2018



ORIGINAL

P.O. Box 1309
Sulphur, LA 70664-1309
(337) 527-4500
Fax: (337) 527-4529
Email: mayor@office@sulphur.org
Website: www.sulphur.org

Mike Danahay, Mayor

October 22, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

**Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000**

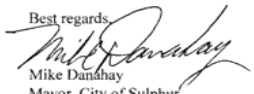
Dear Chairman McIntyre,

EL2-1 Thank you to the FERC staff and Commissioners for the progress on reviewing Tellurian's Driftwood LNG project in Southwest Louisiana and please accept this letter in support for the project.

EL2-2 As the closest city to the proposed site in Carlyss, Louisiana, the City of Sulphur is anticipating to greatly benefit from the \$15 billion facility investment and the significant tax revenue the project will generate. In addition, the thousands of temporary and hundreds of permanent positions anticipated to construct and operate the facility will create significant opportunities for our local workforce.

Tellurian has demonstrated its commitment to positively impact this community. The company has already begun to invest in the Sulphur partnering closely with our local high school, business chamber, and historical museum. Over the last year, the team has also hosted numerous receptions and meetings to allow residents opportunities to receive project updates and to have their questions answered.

EL2-3 I understand that FERC has conducted a thorough and detailed review and that the Driftwood LNG Project is designed to meet or exceed all federal, state, and local rules and regulations for safety, construction, and operation. Given this and the economic impact it will provide to the local communities, I respectfully encourage the Federal Energy Regulatory Commissions (FERC) for a timely approval of the project.

Best regards,

Mike Danahay
Mayor, City of Sulphur

FAITH ✦ FAMILY ✦ COMMUNITY

EL2-1 Thank you for your comment.

EL2-2 Thank you for your comment.


EL2-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL3 - Hunter (Lake Charles Mayor)

20181030-0018 FERC PDF (Unofficial) 10/29/2018


CITY OF LAKE CHARLES
326 Pujot Street • P.O. Box 900
Lake Charles, LA 70602-0900
(337) 491-1201 • FAX (337) 491-1206

NICHOLAS E. HUNTER
MAYOR

OFFICE OF THE MAYOR

October 22, 2018

ORIGINAL

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: **Driftwood LNG & Driftwood Pipeline**
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre,


EL3-1 I am writing in support for Tellurian Inc.'s Driftwood LNG proposed project near Lake Charles, Louisiana and to respectfully encourage the Federal Energy Regulatory Commissions (FERC) timely approval of the project.

Southwest Louisiana is undergoing an unprecedented period of economic growth with over \$100 billion in circa 40 projects currently under construction or announced. As a result, Lake Charles is one of the fastest growing areas in the nation. A significant portion of these projects and growth is being driven by the LNG industry, positioning SWLA to become one of the Clean Energy Capitols of the world.

EL3-2 Driftwood LNG represents one of the cornerstone LNG projects with an estimated \$15 billion in investment. The region and Lake Charles will further benefit from the over 6,000 temporary and 400 permanent positions the facility will create in addition to the significant tax revenue it will generate. Already the region is experiencing positive impact from Tellurian community investments. The City of Lake Charles is working closely with the Tellurian team to fund a major city improvement project. In addition, Tellurian regularly contributes to area non-profits and local chambers proving it will be an excellent corporate citizen and addition to SWLA.

EL3-3 We appreciate the thorough, hard work of the FERC staff on these very important projects. Considering the benefits to the Louisiana economy and the robust application and review process to date, I urge the Commission to move forward with final permitting for the Driftwood Project.

Best regards,


Nicholas E. Hunter
MAYOR
City of Lake Charles

United for Progress and Prosperity

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SECRETARY OF THE
COMMISSION
2018 OCT 29 P 3:24
REGULATORY COMMISSION

EL3-1 Thank you for your comment.

EL3-2 Thank you for your comment.

EL3-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL4 - Abraham (U.S. Representative)

20181031-0010 FERC PDF (Updated 10/30/2018) **CP 17-117, CP 17-118**

RALPH LEE ABRAHAM, M.D.
U.S. Representative, Louisiana

COMMITTEE ON ARMED SERVICES
COMMITTEE ON AGRICULTURE
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

OFFICE OF THE CLERK
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-1805

October 29, 2018


The Honorable Neil Chatterjee
Chairman
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Chairman Chatterjee,

EL4-1 I am writing to express my support for the Driftwood LNG Project currently under environmental review at FERC. This multibillion dollar project is projected to create thousands of new jobs and provide critical economic benefits to the State of Louisiana. The project will also support the economic, energy and national security goals of the United States. I am also requesting that FERC completes its review in a timely manner in order for the local communities, the United States and our allies purchasing the LNG to realize the benefits of this critical project.

EL4-2

Thank you for attention to this important application and for your consideration of these requests.

Sincerely,

Ralph Abraham, M.D.
Member of Congress

2018-00107

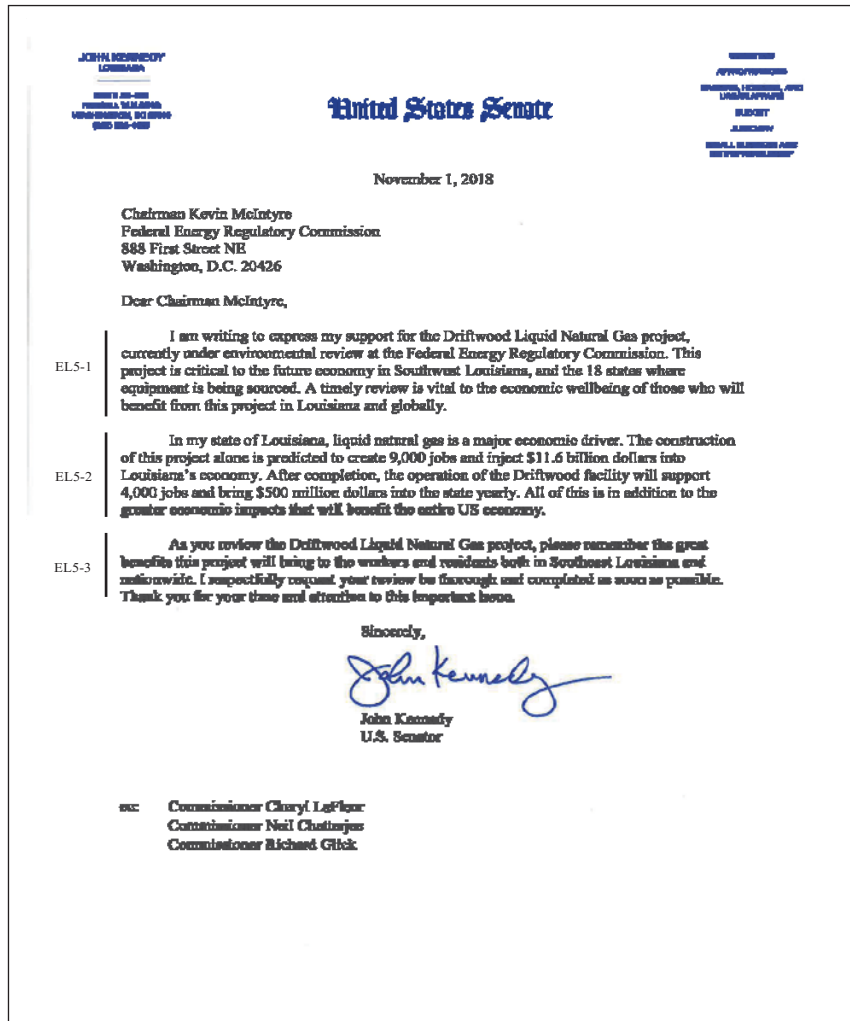
EL4-1 Thank you for your comment.

EL4-2 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL5 - Kennedy (U.S. Senator)



EL5-1 Thank you for your comment.

EL5-2 Thank you for your comment. Section 4.10.2 notes a peak construction workforce of 6,420 combined for the LNG Facility and Pipeline. A project economic study indicated the creation of an annual 3,934 direct and indirect jobs from construction spending. Total LNG Facility and Pipeline construction spending will be approximately \$15.2 billion. Long-term operations will employ 539 workers for both the LNG Facility and Pipeline. Tax revenue impacts from the Project are detailed in section 4.10.3.

EL5-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL6 - Higgins (U.S. Representative)

Congress of the United States
Washington, D.C. 20515

November 1, 2018

Chairman Neil Chatterjee
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman Chatterjee,

EL6-1 We are writing today in support of Tellurian Inc.'s Driftwood LNG Terminal and Pipeline Project (Driftwood) in Calcasieu Parish, and to request the Federal Energy Regulatory Commission's (FERC) prompt review of their application. Driftwood's application was filed in March 2017 and the project has made significant progress including contracting for a lump sum turnkey Engineering, Procurement and Construction contract with Bechtel Oil and Gas. Driftwood has substantial local and state support and is an uncontested application.

The estimated construction cost of the LNG facility is expected to be approximately \$16 billion and the pipeline is \$2 billion. Construction is expected to begin in 2019 with the first plant becoming operational in 2023. All five planned LNG plants should be operational by 2025. The construction of the facilities would directly employ approximately 8,000 workers for the pipeline and 5,750 for the LNG facility.

EL6-2 The economic rewards of the project will benefit not only to Southwest Louisiana where the construction is occurring, but also the rest of the state and nation. For the Driftwood LNG terminal alone, spending in the state over the 8-year construction window has been estimated at \$11.6 billion and creates 9,000 additional jobs. During operations, Driftwood LNG will support over \$500 million per year in spending in the state and close to 4,000 jobs. Equipment for the project is slated to be purchased in 18 states and will significantly improve the balance of trade for the nation along with providing our allies with clean burning natural gas.

EL6-3 We applaud the issuance of the FERC scheduling notice that identifies a final Environmental Impact Statement (EIS) on January 18, 2019. Considering the benefits to the Louisiana economy and the country as a whole and the uncontested nature of the application along with the local and state support, we request that the FERC review the application in an

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EL6-1 Thank you for your comment.

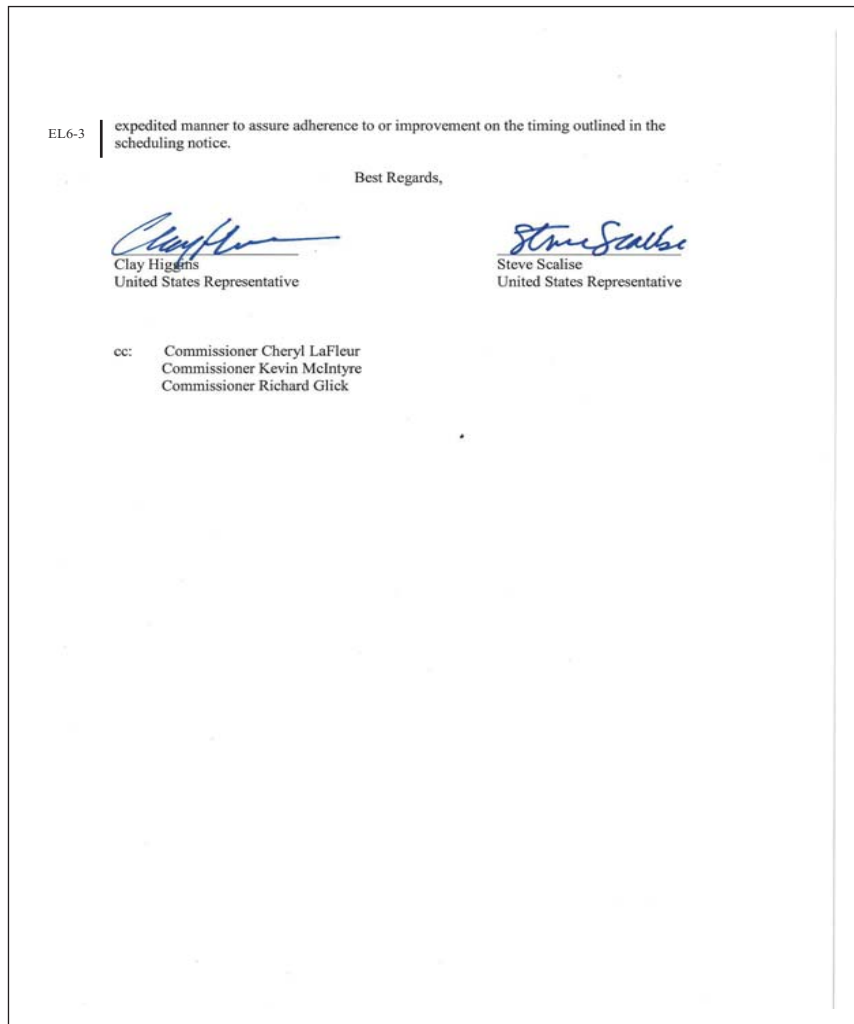
EL6-2 Thank you for your comment. The EIS notes an estimated \$14.5 billion will be spent to construct the LNG Facility and will directly require approximately 5,400 construction jobs. Please see sections 4.10.2 and 4.10.3 of the EIS for more precise estimates on the LNG Facility construction costs and employment estimates, as well as anticipated annual fiscal and employment impacts of the Project.

EL6-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL6 - Higgins (U.S. Representative) (Cont'd)



APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL7 - Wenstrup (U.S. Congress)

Congressman Brad Wenstrup, Washington, DC.
November 5, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre,

EL7-1

Thank you for leading the Federal Energy Regulatory Commission to review and permit natural gas infrastructure across the country.

I am writing in support of Tellurian Inc.'s Driftwood LNG (liquefied natural gas) project (CP17-117, CP17-118). Natural gas is an important part of our economic wellbeing and the future of energy. I am proud to support thoughtful permitting of this new energy infrastructure that allows Ohio natural gas to reach new export markets.

This particular project will benefit our entire community by increasing economic development and creating new jobs at the regional GE turbine manufacturing center in Evandale, Ohio. More broadly, this is part of Ohio's thriving shale-gas industry that employs 12,000 Ohioans directly and supports more than 100,000 total jobs. Opening new export markets for Ohio produced gas is dependent on adequate liquefaction capacity. This new capacity will support advanced manufacturing in Southwest Ohio.

EL7-2

Thank you for your consideration.

Sincerely,

Brad Wenstrup
U.S. Representative

EL7-1 Thank you for your comment.

EL7-2 Thank you for your comment.

F-125

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Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL8 - Green-Gonzales (U.S. Congress)

20181105-0011 FERC PDF (Unofficial) 11/01/2018

Congress of the United States
Washington, DC 20515

November 1, 2018

Chairman Neil Chatterjee
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

OFFICE OF
EXTERNAL AFFAIRS
210 NOV -1 P 5 44
FEDERAL ENERGY
REGULATORY COMMISSION

Dear Chairman Chatterjee,


EL8-1 We are writing to express our support for Tellurian's energy infrastructure investment in southwest Louisiana – the Driftwood LNG project – currently under environmental review at FERC. This project is critical to the future of the economy in the Gulf region, provides an economic boom to the 18 states where this specialized equipment is sourced, and is important to the country's energy and national security.

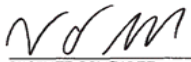
EL8-2 We understand the estimated construction cost of the LNG facility is expected to be approximately \$16 billion and the pipeline is \$2 billion. Construction is expected to begin in 2019 with the first plant becoming operational in 2023. All five LNG plants should be operational by 2025. The construction of the facilities would directly employ approximately 8,000 workers for the pipeline and 5,750 for the LNG facility.

EL8-3 In addition to the economic impact, this project will significantly improve the balance of trade for the nation along with providing our allies with clean burning natural gas. Expanding markets for U.S. natural gas is consistent with U.S. trade and national security interests.

EL8-4 We applaud the issuance of the FERC scheduling notice that identifies a final Environmental Impact Statement (EIS) on January 18, 2019. Considering the benefits to the economy, the uncontested nature of the application, and the significant local support for this project, we encourage an expeditious and timely review.

Sincerely,


GENE GREEN
Member of Congress


VICENTE GONZALEZ
Member of Congress

PRINTED ON RECYCLED PAPER
2018-00110

EL8-1 Thank you for your comment.

EL8-2 Thank you for your comment. Sections 4.10.2 and 4.10.3 detail total LNG Facility and Pipeline construction costs at approximately \$15.2 billion. Peak LNG Facility construction workforce and Pipeline workforce will be 5,400 and 1,020 workers, respectively.

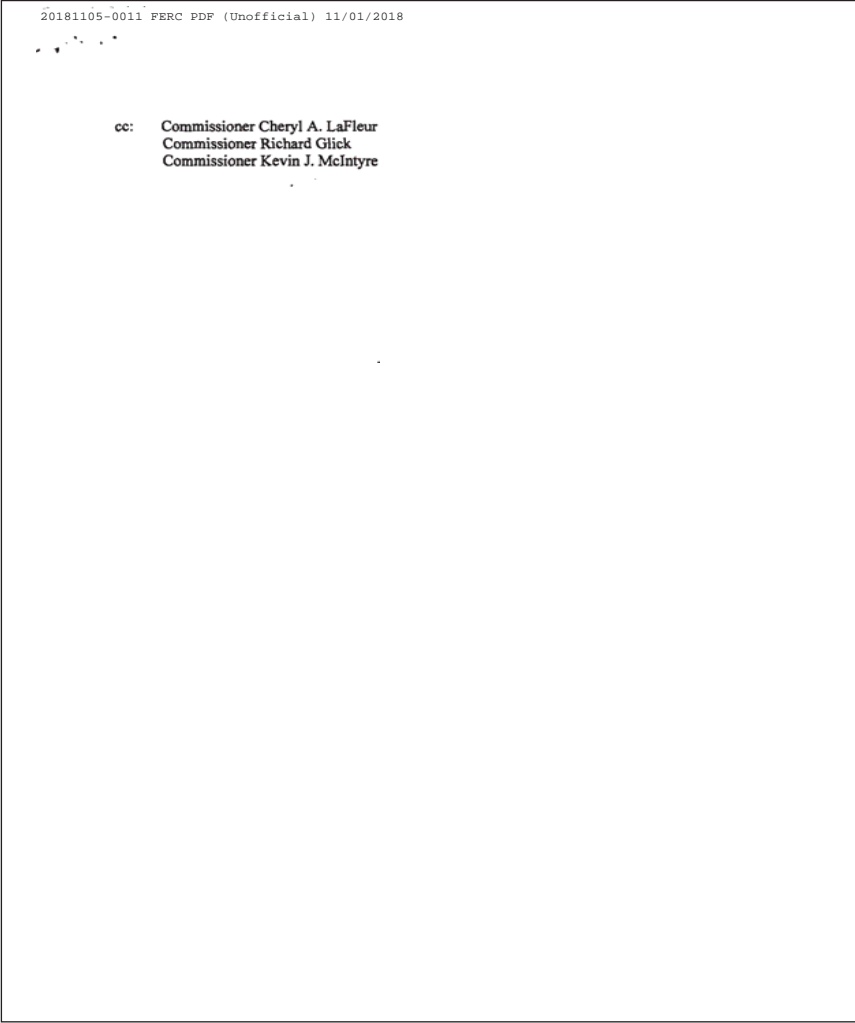
EL8-3 Thank you for your comment.

EL8-4 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL8 - Green-Gonzales (U.S. Congress) (Cont'd)



APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL9 - Cassidy (U.S. Senate)

20181105-0012 FERC PDF (Unofficial) 11/01/2018

BILL CASSIDY, M.D.
LOUISIANA

WASHINGTON, DC OFFICE:
Suite 5H-520
Hart Senate Office Building
Washington, DC 20510
(202) 274-8854

United States Senate

November 1, 2018

COMMITTEES:
FINANCE
HEALTH, EDUCATION, LABOR,
AND PENSIONS
ENERGY AND NATURAL
RESOURCES
VETERANS' AFFAIRS
JOINT ECONOMIC COMMITTEE

OFFICE OF
EXTERNAL AFFAIRS
2018 NOV - 1 P 5 44
FEDERAL ENERGY
REGULATORY COMMISSION

The Honorable Neil Chatterjee
Chairman
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman Chatterjee:

Thank you for your leadership in the issuance of the FERC's recent scheduling notice for various liquefied natural gas (LNG) projects around the country. Increasing America's supply of LNG available for export is good for the economy, good for the environment, and good international trade.

I want to express my continued support for Tellurian Inc.'s Driftwood LNG terminal and Driftwood Pipeline projects. Combined, these projects represent a planned investment of more than \$30 billion. Southwest Louisiana is experiencing significant economic growth thanks to billions already invested in industrial projects in early developmental stages, under construction or recently opened. An investment of this magnitude will provide thousands of highly-skilled construction jobs, more than 400 permanent jobs, and represents a significant economic opportunity for the surrounding communities and state. In fact, it is my understanding that the projects also enjoy substantial community and state support.

As you know, the United States is positioned to have an important role in serving worldwide LNG demand in the coming years in a way that serves America's national security and economic interests. I look forward to working with you and the FERC to help meet those interests.

Thank you again for your leadership on these issues. Please do not hesitate to reach out if I can be further assistance.

Sincerely,

2018-00109

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ALABAMA, LA 70301
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BAYTOWN, LA 77020
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101 LA RUE FRANCE
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1 LANTIERNE DRIVE
SUITE 1100
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3471 N. CAUSEWAY BRIDGEWAY
SUITE 202
ALABAMA, LA 70307
(504) 828-0130

1651 EDENHILL AVENUE
SUITE 122
MOBILE, LA 36681
(218) 324-2111

6425 YOUNG DRIVE
SUITE 415
SHREVEPORT, LA 71115
(318) 752-3210

EL9-1 Thank you for your comment.

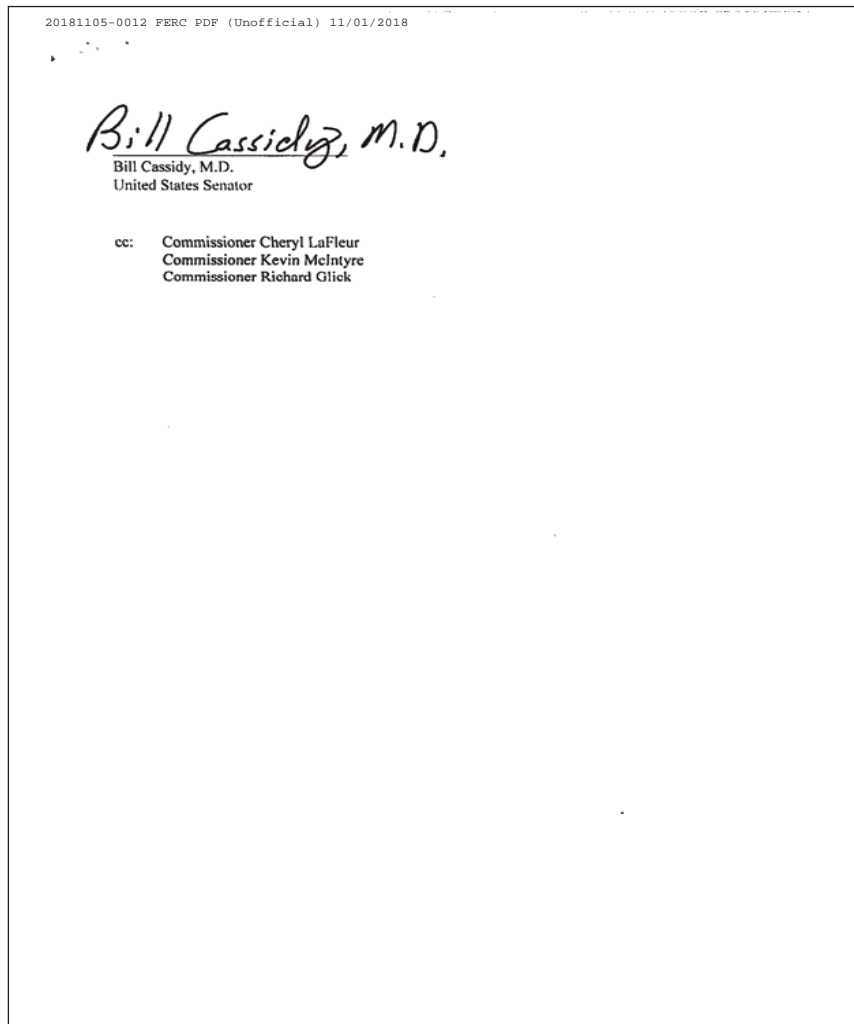
EL9-2 Thank you for your comment. Section 4.10.3 of the EIS notes a total direct project investment of approximately \$15.2 billion.

EL9-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL9 - Cassidy (U.S. Senate) (Cont'd)



APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL10 - Gibbs (U.S. Congress)

20181105-0010 FERC PDF (Unofficial) 11/01/2018

BOB GIBBS
7TH DISTRICT, OHIO

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WASHINGTON, DC 20515
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115 CORTAGE STREET
ASHLAND, OH 44805
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110 CENTRAL PLAZA SOUTH
CANTON, OH 44703
(330) 737-1831

Congress of the United States
House of Representatives
Washington, DC 20515-3507

TRANSPORTATION AND
INFRASTRUCTURE COMMITTEE
SUBCOMMITTEES
WATER RESOURCES AND ENVIRONMENT
HIGHWAYS AND TRANSPORTATION
AVIATION

AGRICULTURE COMMITTEE
SUBCOMMITTEES
GENERAL FARM COMMODITIES AND
RISK MANAGEMENT
BIOTECHNOLOGY, HORTICULTURE,
AND RESEARCH

October 17th, 2018

Chairman Kevin McIntyre
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman McIntyre,


EL10-1 I write in support of Driftwood LNG near Carlyss, Calcasieu Parish, Louisiana. This project will be a catalyst for future work, jobs and prosperity for the 18 states, including my home state of Ohio, where equipment is sourced.

EL10-2 The United States is producing more oil and gas every year. Projects like Driftwood LNG mean our country can be a global leader in energy for decades to come. This project will create thousands of construction jobs in addition to long-term jobs to run the plant in Louisiana and the 18 states where the equipment is sourced. Upon FERC's approval, this project will significantly increase exports to boost our economy and strengthen American trade.

All our citizens will reap benefits along the way. Some will work in the industry and others may see money from oil leases, but the economy will improve and tax revenue will increase everywhere. This will pay for roads, bridges, schools, etc.

EL10-3 For this reason, FERC should consider the importance of these improvements in southwest Louisiana, but also the benefits for our country when it evaluates the Driftwood LNG project. I respectfully request that FERC finish its review quickly so our communities and nation can see the benefits.

Best Regards,



Bob Gibbs
Member of Congress

OFFICE OF
EXTERNAL AFFAIRS
2018 NOV - 1 P 5 44
FEDERAL ENERGY
REGULATORY COMMISSION

PRINTED ON RECYCLED PAPER

2018-00111

EL10-1 Thank you for your comment.

EL10-2 Thank you for your comment.

EL10-3 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL10 - Gibbs (U.S. Congress) (Cont'd)

20181105-0010 FERC PDF (Unofficial) 11/01/2018

cc:

Commissioner Cheryl LaFleur
Commissioner Neil Chatterjee
Commissioner Richard Glick


APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL11 - Edwards (U.S. Governor)

20181107-0009 FERC PDF (Unofficial) 11/06/2018
CP 17-117, CP 17-118

Office of the Governor
State of Louisiana

JOHN BEL EDWARDS
GOVERNOR

 OFFICE OF
EXTERNAL AFFAIRS
2018 NOV -6 P 5 03
FEDERAL ENERGY
REGULATORY COMMISSION
October 29, 2018
P.O. Box 94004
Baton Rouge, Louisiana 70804-9004
(225) 342-7015
GOV.LA.GOV

The Honorable Kevin McIntyre
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Chairman McIntyre:

EL11-1 I am writing to request that the Commission move forward with approval of the Driftwood LNG project proposed by Tellurian Inc. in southwestern Louisiana.

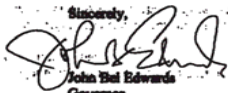
EL11-2 Louisiana has a proud legacy of providing the energy resources and infrastructure necessary to build and strengthen America's economy. New investments like the Driftwood LNG Project will help boost the competitiveness of our nation's oil and gas industry and ensure that Louisiana continues to be a leader in energy markets.

EL11-3 Driftwood LNG represents a tremendous opportunity for Louisiana. Tellurian plans to spend an estimated \$15 billion and employ 6,500 workers during construction. Operations at the Driftwood facility will create 400 permanent jobs in southwestern Louisiana and support thousands more jobs in the oil and gas sector through new access to global markets.

EL11-4 On September 14, 2018, the Federal Energy Regulatory Commission released a Draft Environmental Impact Statement (DEIS) after a thorough review of the Driftwood LNG Project, finding no significant impacts from construction and operation of the project with appropriate mitigation measures. Tellurian has worked cooperatively with several state regulatory agencies, including the Louisiana Department of Natural Resources and the Louisiana Department of Environmental Quality, to contribute to the DEIS while proactively engaging with nearby communities regarding the project's impacts.

EL11-5 I strongly support investments like Driftwood LNG that expand Louisiana's economy and benefit our workforce. I respectfully request the Commission expeditiously complete review and permitting of the Driftwood LNG project.

Thank you for your consideration and for your continued work to ensure reliable and efficient energy infrastructure for Louisiana and our nation.

Sincerely,

John Bel Edwards
Governor

EL11-1 Thank you for your comment.

EL11-2 Thank you for your comment.

EL11-3 Thank you for your comment.

EL10-4 Thank you for your comment.

EL11-5 Thank you for your comment.

Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)


EL12 - Olson (U.S. Congress)

20181108-0011 PERC PDF (Unofficial) 11/08/2018
CP17-118, CP17-117

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**OFFICE OF
EXTERNAL AFFAIRS**
Congress of the United States
House of Representatives
**FEDERAL ENERGY
REGULATORY COMMISSION**
Washington, DC 20426

COMMITTEE ON
ENERGY AND COMMERCE
VICE CHAIR
SUBCOMMITTEE ON ENERGY
SUBCOMMITTEE ON ENVIRONMENT
SUBCOMMITTEE ON
COMMUNICATIONS AND TECHNOLOGY

October 31, 2018


The Honorable Neil Chatterjee
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Dear Chairman Chatterjee,

EL12-1 As you know, I have long been a supporter of exporting liquefied natural gas (LNG) from the United States. Given this, I write to both thank you for the work the Commission has done to expedite review of these projects and also to call your attention to the Driftwood LNG project in Lake Charles, Louisiana and ask that you give it all due consideration.

EL12-2 As I have mentioned repeatedly to the Commission, I firmly believe that LNG exports are a tremendous boon not only for American "energy diplomacy" abroad but also for jobs here at home. On that later point, for example, I am told that Driftwood's project will bring thousands of jobs to the Gulf Coast and other states as part of both construction and the purchase of parts and supplies. Like many projects in the region, this facility could be an anchor for economic development.

EL12-3 Given this, it is my hope that the Commission can continue its work on these matters and specifically give all due consideration to the Driftwood LNG project in Lake Charles.

Very respectfully,

Pete Olson
Member of Congress

Visit us at: <http://www.house.gov/olson>
PRINTED ON RECYCLED PAPER
2018-00114

EL12-1 Thank you for your comment.

EL12-2 Thank you for your comment.

EL12-3 Thank you for your comment.


Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL13 - Bishop (State Representative)

e,p,1-11- C/JJ7- 11[
LOUISIANA HOUSE OF REPRESENTATIVES

P.O. Box 80993
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Fax: (337) 981-7411
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STUART J. BISHOP
State Representative- District 43

COMMITTEES:
Natural Resources and Environment
-Chairman

October 31, 2018

The Honorable Kevin McIntyre
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Chairman McIntyre:

EL13-1 I am writing to express my strong support for the Driftwood LNG Project, which was issued a Draft Environmental Impact Statement (DEIS) by the Federal Energy Regulatory Commission (FERC) on September 14, 2018. This project will benefit Louisiana and the nation, and should be allowed to proceed in accordance with appropriate mitigation measures outlined in the DEIS.

The safe and responsible development of domestic natural gas is an important component of America's energy security and economic strength. Liquefied natural gas (LNG) exports will unlock new markets for our nation's vast natural gas reserves, spurring investments in Louisiana and the country at large that will generate wealth and enhance our long-term energy security.

EL13-2 The Driftwood LNG Project represents an enormous potential investment of \$15 billion, according to project sponsor Tellurian, which would be an incredible opportunity for the economy of southwestern Louisiana. Project sponsor Tellurian expects to create 6,500 jobs during construction and another 400 permanent, high-paying jobs when the Driftwood facility begins operations.

EL13-3 In addition to benefits to the local economy, the Driftwood LNG facility will open new markets for abundant American natural gas supply, benefiting the energy sector in Louisiana and across the nation.

EL13-4 New technologies developed in tight shale basins, such as the Haynesville shale in northern Louisiana, have unlocked vast low-cost resources that far exceed our future domestic needs. Considering the broader opportunities for the energy sector and related service industries created by LNG exports, a study concluded that operations of the Driftwood facility will create 4,000 permanent jobs in Louisiana and contribute \$500 million to the state economy each year.

EL13-1 Thank you for your comment.

EL13-2 Thank you for your comment.

EL13-3 Thank you for your comment.

EL13-4 Thank you for your comment. Section 4.10.2 notes that the LNG Facility and Pipeline will create approximately 539 long-term positions. The economic study noted annual creation of 3,934 direct and indirect jobs associated with construction spending, not operations.


Elected Official

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

EL13 - Bishop (State Representative) (Cont'd)

CP 11-11' 000 ... 11%
LOUISIANA HOUSE OF REPRESENTATIVES

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Email: bishops@legis.la.gov




COMMITTEES:
Natural Resources and Environment
- Chairman

STUART J. BISHOP
State Representative - District 43

EL13-5 The issuance of the DEIS by FERC is an important event in the Driftwood permitting process, the result of a thorough review by state and federal agencies incorporating feedback from the community. The Driftwood Project has strong community support in southwestern Louisiana given the economic benefits and job opportunities associated with development, and FERC has identified in the DEIS appropriate steps to mitigate environmental impacts to construct and operate the facility in a safe and responsible manner.

The positive economic and security benefits resulting from this project cannot be overstated. In closing, I urge the FERC to look favorably on the Driftwood LNG DEIS and publish the Final EIS as soon as possible.

S: 

Stuart J. Bishop
Chairman, Louisiana House of Representatives Natural Resources Committee
Representative, Louisiana District 43

**OFFICE OF
EXTERNAL AFFAIRS
200 NOV 13 1 33Z
FEDERAL ENERGY
REGULATORY COMMISSION**

EL13-5 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NON-GOVERNMENT
NG1 - Tritico (RESTORE)

20181018-0012 FERC PDF (Unofficial) 10/18/2018

ORIGINAL

Draft Outline of Oral Comments by RESTORE to be delivered by Michael Tritico in Sulphur, LA
FERC Hearing 10/11/2018
CP17-117-000 + CP17-118-000

1. Name, address, RESTORE, appreciation to FERC for holding this hearing

2. RESTORE plans to submit more detailed comments before the comment deadline. 2018 OCT 18 P 1:56

NG1-1 3. Our main concern in all of the LNG projects is the prevention of burns to humans in the case of a catastrophic fire.

NG1-2 A. This Driftwood EIS does not address such a thing except to claim that the measures that will be used to prevent "escalation" to a catastrophe should be sufficient.

NG1-3 B. The public needs to know more from the agencies that FERC says have addressed the safety issues. Those entities are not holding public hearings or widely distributing whatever documents they have developed after considering site-specific factors. Therefore, all safety-relevant material should be made available in the FERC EIS, the most comprehensive and most likely document that the public would go to looking for the information.

NG1-4 C. This particular facility would be within 100 to 200 feet of the nearest residence. There are numerous neighborhoods within the 7 mile skin burn zone that some experts say could result in the case of a big fire caused by a major LNG facility.

NG1-5 D. This Driftwood facility will be the largest one in the Southwest Louisiana area and yet there is not even a map showing the "exclusion zone" that would be associated with it.

NG1-6 4. Another major concern RESTORE has is the noise that will be associated with both construction and operation of the facility.

NG1-7 A. Over 48,000 piles will be driven across 600 days of the 7 year construction time. Even with a daylight to dusk limitation on pile driving, that noise at the nearest residence, 200 feet away, will be more than just annoying.

NG1-8 B. Sound carries even better in water than in air. A much better noise analysis with likely distances for disruption of aquatic animals (29 miles) and for damage to such animals (6 miles) was submitted to FERC earlier this year.

NG1-9 C. Since Driftwood has used and FERC has approved a precedent in allowing a company to utilize calculations made by a different company for air pollution analyses (SASOL), then it should be easy for FERC to incorporate the superior noise material from the FERC/EIS-0278D dated June 18, 2018, for CP-15-551-000 and CP15-551-001&2. Incorporation of that material should lead to removal of the dismissive assessment of noise in the Driftwood EIS.

NG1-10 5. That same FERC/EIS-0278D is so superior to the FERC EIS for Driftwood on other issues that RESTORE requests that the FERC staff compare the two, side-by-side, to insure that what is properly covered in the 0278D submission is also required in the Driftwood EIS or, alternatively, the Driftwood EIS must be considered too flawed to be sufficient for its purposes.

6. In speaking with one of the people who came with the FERC group to the meeting in Kinder day before yesterday, I mentioned that we are fortunate in the Calcasieu River ecosystem to have a classic baseline study. There was an ecological research station at the mouth of the Calcasieu River at the turn of the 19th into the 20th Century. They did about a decade of studies entitled: Publications of the Gulf Biologic Station at Cameron. A full set is in the University of California, Berkeley Library, probably one in the Library of Congress, and nearly complete copies at LSU Baton Rouge and Tulane in New Orleans. The copy we placed in the McNeese University Archives may have been damaged by Hurricane Rita.

NG1-1 DWLNG has completed significant and extensive studies and analyses of the safety and reliability of the proposed LNG Facility as required by PHMSA regulations (49 CFR 193). FERC OEP staff has performed a critical review of the preliminary and supplemental "front-end engineering design" (FEED) and required hazards analyses in coordination with PHMSA and the USCG. Exclusion zones were submitted publicly in FERC eLibrary accession number 20181129-5042. In addition, section 4.13.1.2 of the draft EIS describes the siting of LNG facilities with regard to ensuring that the proposed site selection and location would not pose an unacceptable level of risk to public safety as required by DOT's regulations in 49 CFR 193, Subpart B. The siting requirements includes criteria for limiting impacts from various radiant heats from fires. Our description of these radiant heats notes the potential impact on people and structures. DOT reviews the information and criteria submitted by DWLNG to demonstrate compliance with the safety standards prescribed in 49 CFR 193 49, Subpart B and issues a Letter of Determination (LOD) to the Commission on whether the proposed facilities would meet the DOT siting standards. The LOD evaluates the hazard modeling results and endpoints used to establish exclusion zones, as well as DWLNG's evaluation on potential incidents and safety measures incorporated in the design or operation of the LNG Facility specific to the site that have a bearing on the safety of plant personnel and the surrounding public. The LOD serves as one of the considerations for the Commission to deliberate in its decision to authorize, with or without conditions, or deny an application. In addition, based on our technical review of the preliminary engineering design, and with the incorporation of our recommendations, the FEED presented by DWLNG would include acceptable layers of protection or safeguards to reduce the risk of a potentially hazardous scenario developing into an event that could impact the public.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG1 - Tritico (RESTORE) (Cont'd)

NG1-2 Throughout the NEPA process and as described in the EIS, FERC coordinates with cooperating agencies, such as PHMSA, FAA, USCG, and DoD, to address safety issues and reports the results of the analyses and impacts to the public in the EIS.

NG1-3 The nearest residence to the property line of the LNG Facility is approximately 100 to 200 feet, but the nearest residence to hazardous fluid processing areas at the LNG Facility would be approximately 2,500 feet. In addition, the siting requirements of facilities are explained in the EIS in section 4.13.1.2, including the radiant heat levels from fires relative to the property line and locations outside the property line are that must be considered for facilities. We also note that the Sandia study that indicated a 7 mile distance to flammable vapors from the largest credible accidental and intentional events on a floating LNG import facility involving multiple tanks simultaneously in the worst case weather conditions, and would not be applicable to an onshore full containment LNG tank because; the safety and security provisions would be different, the subsequent credible hole sizes would be different, and the resultant spill volumes, liquid spread, and hazard distances would then be different. In addition, causes of failures that have sufficient energy to result in a large fire would also have ignition sources associated with them that would ignite a fire. Large releases would also likely be limited by emergency shutdowns in 10 minutes or less and would be provided with spill containment systems that fully capture them. These large releases of 10 minutes or less are accounted in the design and would not result in a potential public impact. Furthermore, please see the response to comment NG1-1.

NG1-4 Please see the response to comment NG1-1.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG1 - Tritico (RESTORE) (Cont'd)

- NG1-5 FERC staff has addressed impacts of Project-related noise in accordance with NEPA and Commission policy.
- NG1-6 We understand that noise would have an impact on local residents. However, as discussed in sections 4.12.2.3 and 5.2, we have included a time restriction as well as an L_{\max} of 60 dBA at any NSA to limit noise impacts.
- NG1-7 We have tailored the analysis to the potential species impacted and site-specific conditions. Please see adjusted text in section 4.4.3.1, and the response to comment TS2-13.
- NG1-8 Please see the response to comment NG1-7.
- NG1-9 FERC staff has addressed impacts of the Project in accordance with NEPA and Commission policy.
- NG1-10 Thank you for your comment. We have reviewed a portion of the referenced material. We note that historic conditions and actions are considered to be incorporated into the current baseline conditions of the analysis. A general description of historic activities is included in the introduction to section 4.14.

APPENDIX F RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG1 - Tritico (RESTORE) (Cont'd)

F-139

20181018-0012 FERC PDF (Unofficial) 10/18/2018	
NGI-10	We urge FERC's biology team to at least go read that material to see what we had before the Ship Channel was dug and the hemispherical sand bar at the mouth of the river was removed.
NGI-11	7. One of the things that has changed greatly since the time of the Gulf Biologic station at Cameron is the salinity in the Calcasieu River and its lakes. A saltwater barrier had to be constructed north of Lake Charles to halt the ruination of rice crops upstream, crops which were being irrigated by river water. Not only did the saltwater intrusion caused by the dimwitted dredging of the Ship Channel burn up the rice, it killed the cypress swamps and the freshwater marshes that formerly went down to the Chenier Ridge ecosystem just inshore from the Gulf.
NGI-12	8. Another resource that FERC should use in assessing the impacts on aquatic resources in the Calcasieu River ecosystem is a migratory clock diagram I made in 1977 based on Louisiana Wildlife and Fisheries data. That clock shows that there are three main pulses of migration of aquatic organisms during the year, keyed to celestial and meteorological events. A. Dredging (and noise) during such pulses will definitely adversely impact reproduction of most species that live in and migrate through the area of the proposed facility.
NGI-13	B. Also disruptive will be the release of any of the hazardous wastes that are in the two different contaminated sand zones that will be cut through during construction of the ship dock area. Before any activity commences near the hazardous waste fields, a perimeter slurry wall like the one at the huge hazardous waste site in Southwest Carlsbad should be installed.
NGI-14	9. Another hit to the aquatic organisms will be the daily (1 ship per day) discharge of 7 to 15 Million gallons a day of ballast water into the Calcasieu River. As I understand it from the other LNG facility EIS, such discharge may not even be allowed down at Cameron. Dismissing the discharge at this facility as "temporary" is ridiculous if it happens every day. Effects on salinity, temperature, pH, and dissolved oxygen must be fully-disclosed, not passed over as if they do not matter.
NGI-15	10. There is another discharge that will affect the temperature of the river (temperature is a factor that can interfere with migrations and with survival of eggs, larvae, and juvenile forms of fish, and even survival of adult shrimp). That is the cooling water that the ships will take in from the river to keep their engines and other devices cool while they are docked, then discharge the hot water back into the river. That is not to be dismissed.
NGI-16	11. Another effect the EIS considers to be insignificant is the 1 ship per day entrainment of around 20,000 larvae of shrimp, crabs, and fish, or around 8 million planktonic organisms per year by that cooling water intake. The rationale given for dismissing that is bizarre: the high existing mortality in nature of those organisms and the fact that there are a lot of them. The whole idea of protecting aquatic organism populations is to not add new things to kill them. Using the fact that a lot of them die already is not a sensible excuse for killing even more of them than happens in nature.
NGI-17	12. A similar dismissive tone is displayed in the rationale for not worrying about the loss of migratory bird habitat along the 98 mile pipeline because the displaced birds can find somewhere else to live. Actually the birds are deeply-programmed to follow certain routes and use ancient stopovers. When something removes a stopover the incoming flock gets bewildered, stressed physiologically and the reproductive and survival efficiencies must necessarily suffer. Ask them.
NGI-18	13. That 98 mile pipeline is of the same order of magnitude as is the Bayou Bridge Pipeline that is under protest by activists. This one will cross 317 waterbodies of which 88 are permanent. It will, if approved,

NG1-11 Thank you for your comment.

NG1-12 Text has been adjusted in section 4.4.3 to acknowledge this comment. EIS section 4.4.3.1 discusses the impacts of dredging, including temporary increases in noise and turbidity, on aquatic resources. The impacts would vary by species, and highly mobile species would be expected to leave the affected area while smaller or sedentary species may not avoid exposure. The dredging effects would be temporary, lasting only the time necessary to complete the dredging. The COE conducts maintenance dredging in this segment of the Calcasieu Ship Channel approximately every other year (COE, 2010b), and the aquatic organisms present near the Project's dredged area are likely accustomed to regular fluctuations in noise and turbidity from maintenance dredging and from routine shipping and industrial activity.

NG1-13 Please see the responses to comments PP1-4b and SH1-12.

NG1-14 Potential impacts on water quality due to ballast water discharge could include a temporary change in temperature, pH, salinity, and/or dissolved oxygen in the vicinity of the ship. Upon release, the discharged ballast water would mix with the surrounding water, aided by currents and tides, quickly becoming indistinguishable from ambient conditions. The volume discharged by each LNG carrier would be less than one-half of one percent of the volume of the Calcasieu River. Although the discharge would occur an average of once per day, the discharged water would not remain significantly different from ambient water from day to day. Discussions of these water quality parameters can be found in section 4.3.3.2. Estuarine organisms are generally tolerant of a wide range of temperature, pH, salinity, and dissolved oxygen concentrations. Discussions of potential impacts on aquatic resources can be found in section 4.4.3.1.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG1 - Tritico (RESTORE) (Cont'd)

- NG1-15 The impact of the uptake and discharge of cooling water on water quality is discussed in section 4.3.3.2, Cooling Water Withdrawal/ Discharge, and the impact on aquatic resources is discussed in section 4.4.3.1, Cooling Water Intake and Discharge.
- NG12-16 The impact of cooling water intake on ichthyoplankton is discussed in section 4.4.3.1. The estimated ichthyoplankton entrained by a typical LNG carrier represents less than one-tenth of one percent of the ichthyoplankton population in the Calcasieu Ship Channel, which is an insignificant impact.
- NG1-17 Migratory birds are addressed in section 4.7.3.1.
- NG1-18 Thank you for your comment.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG1 - Tritico (RESTORE) (Cont'd)

F-141

20181018-0012 FERC PDF (Unofficial) 10/18/2018	
NG1-18	affect 94% as much wetland acreage as Bayou Bridge. Driftwood's pipeline has gotten under the radar of the protestors so far but that could change.
NG1-19	14. One place where a landowner has strong reservations about the pipeline in Calcasieu Parish is between mileposts 22 and 23. That landowner, on behalf of his brothers and sister, has spoken at his location with the land man who came by telling people what was going to happen to their land, but this particular landowner's family land did not make it into Table 1.3-3. You need to talk to him again.
NG1-20	15. I must say that I was impressed that the pipeline will have 275 thousand horsepower along the pipeline for compression of gas on the way to Carlyss! (Having the ability to launch 6 pigs was another interesting revelation.)
NG1-21	16. I do not know how much impact the use of 360,000 gallons a day during the 7 years of construction will have on the ability of the municipal water district to keep water pressure up for the neighborhoods it serves. Of course, if the district charges the same rate for water that it charges the residents, which would be the fair thing to do, then maybe the costs of upgrades might be met. Then when the construction is over, the 260,000 gallon per day drain on the district water supply might not be so bad.
NG1-22	17. A last thought about water – especially evident this week with the action of the Hurricane Michael Storm Surge over in Florida: the dismissive attitude apparent throughout this EIS is again evident when it comes to the weak plans for handling such an event at Driftwood. The NOAA SLOSH Model released several years ago showed 27 feet of sea water at Interstate 10 in Sulphur during a Michael type storm, not even a Category 5. The latest such diagrams I have seen have a "9 foot and above" inundation diagram so it is hard to be as specific as it was with the old diagram. However, it is a certainty that Hurricane Michael's storm surge here would have filled up the Driftwood facility and not drained out of the bowl created by the planned surge protection system.
Thank you again, FERC for letting RESTORE submit these comments.	
Michael Tritico, President of RESTORE	
Restore Explicit Symmetry To Our Ravaged Earth	

NG1-19 Thank you for your comment. The landowner at this location has not provided a comment to us.

NG1-20 Thank you for your comment.

NG1-21 Thank you for your comment.

NG1-22 The EIS, section 4.13.1.5, addresses storm surge heights and proposed mitigation. The data suggest that the proposed 16 foot and 17-18 foot post-settlement berm and wave wall would provide adequate protection of the DWLNG site. In addition, refer to section 4.13.1.5 in the EIS for the discussion on historical flooding caused by hurricanes and associated storm surges encountered in Calcasieu Parish, which includes the 2005 Hurricane Rita which peaked as a Category 5 hurricane and made landfall as a Category 3 hurricane. The emergency response plan would also cover hurricane response plans that often call for a shutdown of a facility above a certain category. In addition, most emergency planners will call for the evacuation of the surrounding area that would be impacted by a major category hurricane.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG2 - Davison (Big Brothers Big Sisters of SWLA)

F-142

FEDERAL ENERGY REGULATORY COMMISSION DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC DRIFTWOOD LNG PROJECT (DOCKET NOS. CP17-117-000 AND CP17-118-000)	
Comments can be: (1) left with a FERC representative; (2) mailed to the addresses below or (3) electronically filed ¹ .	
ORIGINAL	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px; font-size: x-small;">Please send one copy referenced to Docket Nos CP17-117-000 and CP17-118-000 to the addresses below.</div> <div style="font-size: x-small;">For Official Filing: Kimberly D. Rose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, DC 20426</div> <div style="text-align: right; margin-top: 20px; font-size: x-small;">2018 OCT 18 10:51</div>
NG2-1 COMMENTS: (PLEASE PRINT) <i>(attach an additional sheet if necessary)</i> <div style="border: 1px solid black; padding: 5px; margin-top: 5px; font-family: cursive;">I support the Driftwood LNG project for SWLA. As the Executive Director of Big Brothers Big Sisters of SWLA, the economic impact of a project like this will bring much needed jobs, revenue, and community enhancement for the children & families BBBS serves through our Mentoring Mission. Driftwood LNG is an Annual Corporate Partner, investing thousands of dollars in our mentoring mission. Assisting & supporting us as we serve over 900 participants per year. I think their ongoing</div>	
NG2-2 <div style="border: 1px solid black; padding: 5px; margin-top: 5px; font-family: cursive;">support, we could not service our region, especially Calcasieu & Cameron Parish schools & families. Their community support will impact SWLA for years, leaving our economy for decades to come.</div>	
Commenter's Name and Mailing Address (Please Print) <div style="border: 1px solid black; padding: 5px; margin-top: 5px; font-family: cursive;">Fin Davison 226 W. Water Circle Lake Charles, LA 70601 edavison@bbbswla.org 337-262-4462</div>	
¹ The Commission encourages electronic filing of comments. See 18 C.F.R. of Federal Regulations 385.2001(a)(2)(ii) and the instructions on the Commission's Internet website at http://www.ferc.gov under the link to "Documents and Filings" and "e-filing." e-filing is a file attachment process and requires that you prepare your submission in the same manner as you would if filing on paper, and save it as a file on your hard drive. New e-filing users must first create an account by clicking on "2009.09" or "register." You will be asked to select the type of filing you are making. This filing is considered a "Comment on Filing." To address there is a "Quick Comment" option available, which is an easy method for interested persons to submit text only comments on a project. The Quick Comment User Guide can be viewed at http://www.ferc.gov/docs-filing/efiling/quick-comment-guide.pdf . Quick Comment does not require a FERC eRegistration account, however, you will be asked to provide a valid email address. All comments submitted under either e-filing or the Quick Comment option are placed in the public record for the specified docket or project number(s).	

NG2-1 Thank you for your comment.



NG2-2 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG3 - Brignac (Fusion Five)

F-143

20181018-0011 FERC PDF (Unofficial) 10/18/2018



10/11/2018 *CP17-117-000 4 CP17-118-000*

NG3-1 As the President of Fusion Five, the Young Professionals Organization for Southwest Louisiana I am here to state that we stand in favor of Tellurian's Driftwood LNG project.


Fusion Five is a Young Professional Organization (YPO) that is making a positive impact on SWLA by exchanging ideas, developing our members, leading the community, and creating a better place to live and work. Our mission is to cultivate a positive impact on Southwest Louisiana by connecting and engaging young professionals in regional opportunities for civic engagement, professional development, and personal growth.

Tellurian has helped facilitate this mission by demonstrating itself to be a strong community partner intent to positively impacting the SWLA region via civic engagement:

- Over \$200,000 has been donated to the local community making several key investments in Southwest Louisiana's schools, foundations, and non-profit organizations, including SWLA Hurricane Harvey Fund, Sulphur High School, Vincent Settlement Elementary School, DeWanna's Closet, Big Brothers Big Sisters of SWLA, and the local area chambers of commerce.
- Tellurian has actively engaged the community to ensure they have understanding about the LNG industry and are up to date on the Driftwood LNG project:
 - Newsletters have been issued as full-page advertorials in the local newspaper, e-newsletters, and direct mail newsletters.
 - Neighborhood meet & greets have been hosted with residents and their neighbors in Carlyss, Sulphur and Lake Charles.
 - Numerous speaking engagements have been held with local civic and business organizations including host a "What is LNG?" with Fusion Five earlier this year.

NG3-2 The professional development that the Tellurian's Driftwood LNG project will have on the SWLA community stands to further diversify and improve our standard of living:

- Facility represents an investment of over \$15 billion.
- Thousands of jobs will be created: approx. 6,500 during construction phase of the project and 400 new permanent jobs once plants are operational.
- Community will benefit from tax revenues over the life of the facility and result in increased revenue to local services such as restaurants, hotels, and local stores/businesses.



Blake Brignac
President
Fusion Five

2018 OCT 18 P 1:57

NG3-1 Thank you for your comment.

NG3-2 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG4 - Tritico (RESTORE)

20181022-5018 FERC PDF (Unofficial) 10/21/2018 5:55:26 PM

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

October 21, 2018

eFiling
www.ferc.gov
Federal Energy Regulatory Commission

Re: Docket Nos. CP17-117 and CP17-118-000, Driftwood LNG

Dear Federal Energy Regulatory Commission:

Thank you for the opportunity to continue to submit comments on the Driftwood Project.

These comments are in response to the additional material submitted yesterday (with a cover letter dated 10/19/2018) by Driftwood, as identified by FERC PDF 20181019-5180.

1. RESTORE has no response to Driftwood Comment No. 1.

2. RESTORE believes that, to be addressing aviation issues, the choice of Southland Field instead of the Lake Charles Municipal Airport, is a mistake. Even though Southland Field might be closer, the flight pattern of the Lake Charles Municipal Airport takes aircraft closer to the proposed Driftwood site than does the flight pattern of Southland.

NG4-1 In fact, when the prevailing wind at the Lake Charles Municipal Airport is from the southerly direction, which is much of the time, a small departing aircraft in the crosswind leg of the air traffic pattern climbs right over the existing Lake Charles LNG facility, the proposed Magnolia LNG facility, and the proposed Driftwood facility. At a moderate rate of climb for a Cessna 172, 500 feet per minute, the airplane would still be below 2,000 feet in altitude by the time it reached Magnolia. Any kind of engine problem on the downwind leg would be a real problem. RESTORE thinks that it is of critical importance for FERC to require Driftwood to consult with FAA on the possible risks involving not Southland Field, but flights from the Lake Charles Municipal Airport.

3. Driftwood Comment No. 3 about Pile Driving Noise: The complete absence of any assessment of pile driving noise on the aquatic biota and the absence of any mitigation measures to offset that definite adverse impact is an intolerable flaw in the Draft EIS and must be remedied.

NG4-2 The dismissive attitude about noise effects on the nearby human population is sad evidence that there is not a serious comprehension of the real world by the preparers of the document. The mitigation measures that seem to be the linchpins of the company approach to the issue are monetary compensation or temporary location of the residents. The failures of regulatory authorities to take into account the constantly building evidences of adverse effects of noise below the levels utilized in this already obsolete Draft EIS should be recognized. FERC should review recent noise/health/behaviorial effects literature and provide updated protective limitations on noise that would truly relieve the nearby people of what is otherwise coming their way, not just annoyance but actual disruptions of daily well-being.

NG4-3 4. Driftwood Comments No. 4 through No.8 are about hazardous waste contamination that exists at the proposed site and the possible movements and impacts of that toxic material. In one sentence after another the Draft EIS dismisses the possibility of movement of contaminants even when disturbed by construction activities. That attitude is a denial of what we have seen at one hazardous waste disposal site

NG4-1 Text was adjusted in section 4.13.1 in response to this comment.

NG4-2 Please see the response to comment TS2-13.

NG4-3 Please see the response to comment PP1-4b.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG4 - Tritico (RESTORE) (Cont'd)

F-145

20181022-5018 FERC PDF (Unofficial) 10/21/2018 5:55:26 PM

after another up and down the Calcasieu River and its tributaries.

Many years ago a State of Louisiana geohydrologist named George Cramer published a "Position Paper" based largely upon his assessment of data from numerous waste sites in Louisiana, especially Calcasieu Parish sites since, at the time, they were the most studied. Cramer's primary conclusion was a warning to NOT consider even solid clay layers as aquacludes since these local clays have numerous fractures. Even without the fractures these clays transmit fluids at significant rates. Therefore, for the EIS to say that a silty, mushy clay layer is going to prevent migration of the contaminants at the Driftwood Facility is just wrong.

NG4-3 Furthermore, those early studies in Calcasieu Parish proved that the volatile organic solvents like EDC cause the crystalline structure of the clays to collapse and then the resulting silty mush easily transmits the solvents onward.

There is just no way that a properly-designed, installed, sampled, and analyzed groundwater monitor well grid at the Driftwood location would fail to show the true extent, so far, of toxins that have had years to spread, sink in the case of DNAPL and float in the case of LNAPL. Siting an LNG facility where there is known groundwater contamination adjacent to a waterbody highly used for primary contact recreation and for seafood harvesting is poor thinking.

Using as one excuse for not doing a complete groundwater/sediment study the fact that there is riprap in the way at one location makes even more necessary a thorough investigation, not a lesser effort.

The upshot of all the sidestepping on the existing toxin situation is that there is no discussion of what would be done should contamination be discovered (by anyone) during construction of the barge slip and ship berthing areas. What will be the response of FERC, Coast Guard, LDEQ, EPA should that happen, to just tell the public it is too late and the project once started can go forward no matter what? That is supposedly why we are at a stage that is meant to keep such a thing from happening. RESTORE thinks that the prudent approach absolutely requires a new and extensive investigation to properly-map the existing contamination and THEN decide whether or not the project can proceed.

9. Driftwood Comment No. 9 about Construction Coordination Plan, RESTORE has no response.

NG4-4 10. Driftwood Comment No. 10 about Consultation with U.S. Fish and Wildlife should be rejected since a recent filing: {20181015-5066(33190795)} (1) is the number at the top of the page I printed from the FERC eSubscription entry} by Brandon Howard. The document says that NOAA's National Marine Fisheries Service has reviewed the Driftwood Draft EIS. NOAA finds the Calcasieu Ship Channel to be Essential Fish Habitat and makes several recommendations that are sensible. Those recommendations and a deeper understanding of the Calcasieu Ecosystem would greatly improve protection of the public's natural resources.

Sincerely,

Michael Tritico, Biologist and President of RESTORE

Restore Explicit Symmetry To Our Ravaged Earth

NG4-4 Please see the response to comment PP2-1.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG5 - Vuxton (Coalition to Restore Coastal LA)

F-146

20181101-5184 FERC PDF (Unofficial) 11/1/2018 4:21:04 PM

Emily Vuxton, New Orleans, LA.
Dear Ms. Bose,

NG5-1 | The Coalition to Restore Coastal Louisiana (CRCL) is the oldest coastal advocacy non-profit in Louisiana. The mission of CRCL is to drive bold, science-based action to rebuild coastal Louisiana through outreach, restoration and advocacy. We are writing to comment on the draft EIS for the Driftwood plant. We are writing to specifically address the dredged material management plan proposed for this project.

NG5-2 | For Section 404 requests, the assessment of contaminated materials is conducted using the joint EPA/USACE "Evaluation of Dredged Material Proposed For Discharge in Waters of the U.S. - Testing Manual" commonly referred to as the Inland Testing Manual. Dredged material samples were not assessed using these testing protocols. The material should be re-evaluated using the protocols defined in this manual.

NG5-3 | We are concerned with the fact that the draft EIS clearly states that potentially contaminated sediment will be dredged from the project area and placed in shallow open water within nine nearby BUDM areas. A response from the applicant on October 19th (included in the FERC public record) indicates that the applicant disagrees with FERC's assessment that contaminated dredged material will be released into the BUDM areas. They state that no contaminated material will be dredged, and thus, none will be released into the marine environment. CRCL makes no comment on this disagreement except to say that it is unacceptable for any contaminated material to be released, uncontained, into the marine environment, and if the applicant does not plan to do that, the DEIS should be changed accordingly.

NG5-4 | We suggest that the dredged material should be retested using the correct protocol and the DEIS should be corrected if the applicant does not plan to dredge any contaminated sediment and freely release it into the marine environment.

Sincerely,

Emily Vuxton
Policy Director

NG5-1 Thank you for your comment.

NG5-2 Please see the response to comment SH1-12.

NG5-3 Please see the response to comment PP1-4b.

NG5-4 Please see the responses to comments SH1-12 and PP1-4b.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG6 - Snitchler (American Petroleum Institute)



November 5, 2018

Chairman Neil Chatterjee
Federal Energy Regulatory Commission
888 First Street NE
Washington, D.C. 20426

Re: Driftwood LNG & Driftwood Pipeline
Docket Nos. CP17-117-000 & CP17-118-000

Dear Chairman Chatterjee,

NG6-1 | On behalf of the American Petroleum Institute (API), I write in support of the draft Environmental Impact Statement (DEIS) for the Driftwood LNG and Driftwood Pipeline projects (herein, the "Project"). The Project involves the siting, construction and operation of liquefied natural gas (LNG) export facilities and certain interstate natural gas transmission pipelines in Louisiana. The economic and environmental benefits of exporting U.S. LNG, including those to be gained by the approval of the Driftwood LNG Project, are considerable, and the DEIS is appropriately tailored to facilitate these benefits at a critical time for the U.S. natural gas industry. As such, API encourages the Federal Energy Regulatory Commission (FERC) to proceed with the timely issuance of the final EIS for this important Project.

NG6-2 |

I. Statement of Interest

API is a national trade association that represents over 625 companies involved in all aspects of the oil and natural gas industry. API's members include owners and operators of LNG import and export facilities in the United States and around the world, as well as owners and operators of LNG vessels, global LNG traders, and manufacturers of essential technology and equipment used all along the LNG value chain. Our members also have extensive experience with the drilling and completion techniques used in shale gas development and in producing America's natural gas resources in a safe and environmentally responsible manner.

II. Benefits of Increased U.S. LNG Exports

The continued safe and environmentally responsible development of domestic natural gas is an important component of America's energy security and economic strength. Since 2007, U.S. natural gas production has increased dramatically, and the U.S. recently became a net exporter of natural gas for the first time in several decades. U.S. natural gas supply is abundant and more than sufficient to sustain substantial increases in both domestic consumption and exports going forward.

NG6-3 | Increasing LNG exports have already produced considerable domestic benefits for the United States, including jobs created by the construction and operation of the facilities themselves. These

NG6-1 Thank you for your comment.

NG6-2 Thank you for your comment.

NG6-3 Thank you for your comment.

APPENDIX F

RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG6 - Snitchler (American Petroleum Institute) (Cont'd)

F-148

NG6-3	<p>benefits are poised to increase further as additional U.S. LNG export projects are sanctioned. For instance, the Driftwood LNG project represents a total investment of nearly \$20 billion and is estimated to generate more than 10,000 jobs over its multi-year construction timeline. The economic boost will be particularly strong in southwest Louisiana, but the benefits will also extend to many states throughout the country where equipment is being purchased. Completion of the Driftwood project would also increase demand for domestic natural gas production, adding American jobs, boosting domestic GDP, increasing government revenues and helping reduce the trade deficit.</p> <p>API is far from alone in recognizing the considerable benefits of increased U.S. LNG exports. Indeed, over the last several years, a multitude of studies have shown a consistently positive relationship between rising LNG exports and domestic economic benefits. For example, in June 2018, the U.S. Department of Energy (DOE) completed its fifth and most comprehensive study of U.S. LNG exports, "Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports" (herein referred to as the "<i>2018 LNG Export Study</i>"). As in the previous four studies, the <i>2018 LNG Export Study</i> found that U.S. LNG exports provide a net benefit to American consumers and workers.</p> <p>In addition to the domestic economic benefits of U.S. LNG exports, natural gas—the cleanest burning fossil fuel—can play a critical role in advancing environmental goals both at home and abroad. Already, the increased use of natural gas for electricity generation in the U.S. has lowered U.S. emissions to levels not seen in 25 years. With global emissions on the rise, increased use of U.S. natural gas around the world could help make the world's air cleaner, while simultaneously bolstering our balance of trade with a number of importing nations. Many countries rightly view natural gas as a critical fuel for the future and understand it will play an outsized role in making their energy systems cleaner, more reliable and more efficient.</p>
NG6-4	<p>Therefore, API believes U.S. LNG clearly offers sizeable benefits to the U.S. economy, environment and beyond. As such, we strongly support the Driftwood LNG project and encourage FERC to proceed with the timely issuance of the final EIS.</p> <p style="text-align: center;">III. Timeline of NEPA Review</p>
NG6-5	<p>According to the Driftwood LNG docket, FERC has issued a scheduling notice that calls for the publication of the final EIS for the Project on January 18, 2019. API encourages FERC to proceed expeditiously in completing this critical effort.</p> <p>API understands and appreciates the considerable complexity involved in completing a thorough review of this and other LNG export projects. Yet, there are clear negative consequences associated with any unnecessary delays in their review and permitting, which would put U.S. projects at a competitive disadvantage to alternative LNG supply regions.</p> <p>That being the case, API welcomes the dedicated recent efforts on behalf of FERC Commissioners and staff to ensure these NEPA reviews are completed in a thorough but timely manner. These efforts include increased cooperation with the Pipeline & Hazardous Materials Safety Administration (PHMSA) on project reviews, as well as the use of outside, third-party support to assist in construction inspections and other components of the project review process. API strongly supports these efforts.</p>

NG6-4 Thank you for your comment.

NG6-5 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG6 - Snitchler (American Petroleum Institute) (Cont'd)

IV. Conclusion

NG6-6

API applauds FERC for recognizing the importance of these critical projects and understanding that unnecessary delays in the permitting process would put the United States at risk of missing out on the important economic, environmental and foreign policy gains associated with unfettered, market-determined levels of U.S. LNG exports.

This outcome would be deeply unfortunate and would mark a serious missed opportunity. As such, API thanks FERC for its dedication and close attention to this important application.

Respectfully submitted,

Todd Snitchler
Vice President, Market Development
American Petroleum Institute
1220 L Street NW
Washington DC 20005
Phone: 202-682-8000
snitchlert@api.org

cc: Commissioner Cheryl LaFleur
Commissioner Kevin McIntyre
Commissioner Richard Glick

NG6-6 Thank you for your comment.

APPENDIX F
RESPONSES TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (Cont'd)

NG7 - Tritico (RESTORE)

F-150

Corrections of Transcripts of the Driftwood LNG Project October 9, 2018 Public Meeting Held in Kinder, LA. (Accession Number 20181119-4004) and October 11, 2018, Public Meeting Held in Sulphur, LA. Accession Number 20181119-4006, both have Docket Number CP17-117 et. al.

I received the transcripts yesterday, 11/19/2018. Upon reviewing them I saw quite a few mistakes in the record of my testimony for RESTORE. I now provide the following corrections:

For the transcript of the Kinder, LA meeting:

Page 6 Line 16 change "buy-out" to "plight"

Page 8 Line 13 change "they" to "Venture Global LNG"

Page 8 Lines 22 and 23 should read "modify the pile driving equipment such that cushions dampen the noise from the blows that push down the pile."

Page 9 Lines 6, 7, and 8 should read "a track runner going around hurdles and thinks he's the fastest but has not really been over the hurdles, not really cleared them."

Page 10 Line 9 change "cutter hedge" to "cutterhead"

Page 10 Lines 11 and 12 Delete "Well, they don't use the word, it doesn't phrase out of hand but" and capitalize "Any"

Page 10 Line 17 Change "Usually" to "Years ago"

For the transcript of the Sulphur, LA meeting:

Page 8 Line 20 change "it" to "He"

Page 10 Line 17 change "sass saw" to "Sasol"

Page 11 Line 19 change "Manganese" to "McNeese"

Page 15 Line 20 change "this launch" to "the SLOSH"

Thank you for receiving these corrections. Michael Tritico President of RESTORE

NG7-1 Thank you for your comment.

NG7-2 Thank you for your comment.

APPENDIX G

**AGENCY APPROVALS
RECEIVED**



BILLY NUNGESSER
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

RENNIE S. BURAS, II
DEPUTY SECRETARY

PHIL BOGGAN
ASSISTANT SECRETARY

29 June 2016

Greg Lockard
ERM
1776 I Street, NW
Suite 200
Washington, DC 20006

Re: Draft Report
La Division of Archaeology Report No. 22-5269
*Phase 1 Cultural Resources Survey for the Proposed Driftwood Liquefied Natural Gas Export Facility,
Calcasieu Parish, Louisiana*

Dear Mr. Lockard:

We acknowledge receipt of your letter dated 9 June 2016 and two copies of the above-referenced report. We have completed our review of this report and have no comments to offer.

In the Abstract, page 3, last paragraph, the site number should be 16CU108.

Our office concurs that no historic properties will be impacted within the Project Area and we have no further concerns for this project. We also concur that site 16CU186 remains undetermined with respect to its eligibility for nomination to the National Register of Historic Places.

We look forward to receiving two bound copies of the final report along with a pdf of the report. If you have any questions please contact Chip McGimsey at the Division of Archaeology by email at cmcgimsey@crt.la.gov or by phone at 225-219-4598.

Sincerely,

Phil Boggan
State Historic Preservation Officer



BILLY NUNGESSER
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

RENNIE S. BURAS, II
DEPUTY SECRETARY

PHIL BOGGAN
ASSISTANT SECRETARY

22 November 2016

Greg Lockard
ERM
1776 I Street, NW
Suite 200
Washington, DC 20006

Re: Draft Report

La Division of Archaeology Report No. 22-5377

Phase I Cultural Resources Report, Driftwood LNG LLC, and Driftwood LNG Pipeline LLC, Driftwood LNG, Project, Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

Dear Mr. Lockard:

We acknowledge receipt of your letter dated 31 October 2016 and two copies of the above-referenced report. We have completed our review of this report and offer the following comments.

In the Abstract, please include the site numbers for all sites referenced in the project; please also include the appropriate historic structure numbers. Please also include the total acreage surveyed.

The report and Table 5-3 identifies eight previously recorded sites intersected by the project APE. However, only one of these sites is discussed (16EV22). If the remaining sites were examined for this study, please provide the documentation of that effort and an assessment of each site's eligibility for nomination to the National Register. In particular, discussion of the National Register eligible site 16CU28 and documentation that no eligible components will be impacted is critical. In the absence of this information, it is not possible for our office to evaluate the impact of the project on these known sites.

We request site update forms for the eight sites revisited by this project.

We concur that sites 16EV22, 16EV79, 16JD59, and 16CU92 are not eligible for nomination to the National Register of Historic Places. Our office will comment on sites 16AC23, 16CU28, 16CU31, 16CU70, 16CU71, 16EV23, and 16JD39 when a revised report is submitted for review. We also concur that structures HS 10-00694 – 00698, 20-00059, 20-00060, 27-00031, 27-00033, and 27-00034 are not eligible for nomination to the National Register.

We look forward to receiving two bound copies of the revised, final report along with a pdf of the report. If you have any questions please contact Chip McGimsey at the Division of Archaeology by email at cmcgimsey@crt.la.gov or by phone at 225-219-4598.

Sincerely,

Phil Boggan
State Historic Preservation Officer



BILLY NUNGESSER
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

RENNIE S. BURAS, II
DEPUTY SECRETARY

13 April 2017

Ed Schneider
Senior Archaeologist
ERM
3300 Breckinridge Blvd., Site 300
Duluth, GA 30096

Re: Draft Report

La Division of Archaeology Report No. 22-5377-1

Phase I Archaeological Survey Addendum 1: Driftwood LNG LLC and Driftwood Pipeline LLC, Driftwood LNG Project, Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana

Dear Mr. Schneider:

We acknowledge receipt of your letter dated 27 March 2017 and two copies of the above referenced report. We have completed our review of this report and offer the following comments.

We concur that no archaeological historic properties will be impacted by this project.

In reference to the surveyed historic standing structures 27-00035 – 2700037, we concur with your assessment that none meet the criteria for listing on the National Register of Historic Places. Please submit an archival paper and PDF copy of the Louisiana Historic Resource Inventory forms and an archival paper map per the Division of Historic Preservation's Louisiana Historic Resource Inventory Guidelines.

We look forward to receiving two bound copies of the final report along with a pdf of the report. If you have any questions please contact Chip McGimsey at the Division of Archaeology by email at cmcgimsey@crt.la.gov or by phone at 225-219-4598.

Sincerely,

Kristen Sanders
Deputy State Historic Preservation Officer

ER Routing Slip

Date Received 4/18/2017

Parish MULTI

Archaeology CRM \ 4-24-2017
Initial Date

Historic Preservation \
Initial Date

A	HP	
<input type="checkbox"/>	<input type="checkbox"/>	No Properties
<input type="checkbox"/>	<input type="checkbox"/>	No Historic Properties Affected
<input type="checkbox"/>	<input type="checkbox"/>	No Historic Properties Adversely Affected
<input type="checkbox"/>	<input type="checkbox"/>	Historic Properties Adversely Affected

Comments: 22-5377-1

**Environmental
Resources
Management**

3300 Breckinridge Blvd
Suite 300
Duluth, GA 30096
(678) 781-1370
(678) 781-4470 (fax)
www.erm.com



April 18, 2017

Dr. Chip McGimsey
Louisiana Office of Cultural Development
Division of Archaeology (LDA)
1051 N. 3rd St., Room 319
Baton Rouge, LA 70802

Re: Submission of the Final Driftwood Phase I Addendum 1 Report

Dr. McGimsey:

Enclosed please find two hard copies and one CD with the .pdf version of the final report entitled *Driftwood LNG LLC and Driftwood LNG Pipeline LLC, Driftwood LNG Project, Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes, Louisiana, Pipeline Phase I Archaeological Survey Addendum 1 Report*. The hardcopies of the structures forms will be sent under separate cover.

Please feel free to call me directly at (307) 399-6724 or ed.schneider@erm.com if you have any questions or concerns.

Sincerely,

Ed Schneider
Senior Archaeologist
Environmental Resources Management (ERM)

RECEIVED

APR 19 2017

ARCHAEOLOGY

The Final Report has been reviewed and accepted.

Report # 22-5377-1

Kristin P. Sanders
Deputy State Historic Preservation Officer

Date 4/24/2017



ENERGY,
INSTALLATIONS
AND ENVIRONMENT

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3400 DEFENSE PENTAGON
WASHINGTON, DC 20301-3400

June 15, 2017

Kelley Muñoz
Environmental Project Manager
Federal Energy Regulatory Commission
Kelley.munoz@ferc.gov

Dear Ms. Muñoz,

As requested, the Department of Defense (DoD) Siting Clearinghouse coordinated within DoD an informal review of the Driftwood LNG project. The results of our informal review indicated that the LNG project located in Calcasieu, Jefferson Davis, Acadia, & Evangeline Parishes, Louisiana, as proposed will have minimal impact on military operations conducted in this area.

Please note that this informal review by the DoD Siting Clearinghouse does not constitute an action under 49 United States Code Section 44718 and that the DoD is not bound by the conclusion arrived at under this informal review. Please contact me at steven.j.sample4.civ@mail.mil or at 703-571-0076 if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "JTSm", is located below the "Sincerely," text.

Steven J. Sample
Deputy Director
DoD Siting Clearinghouse



Trahan, Amy <amy_trahan@fws.gov>

RE: Driftwood Consultations

1 message

Amy Butler <abutler@perennialenv.com>
To: "amy_trahan@fws.gov" <amy_trahan@fws.gov>
Cc: Leslie Yoo <lyoo@perennialenv.com>

Fri, Aug 18, 2017 at 1:54 PM

Good afternoon Amy.

I understand you spoke with Leslie Yoo in our office about the changes that have occurred on the Driftwood LNG Project since the initial and supplemental concurrences were received. There have been several route shifts (not significant reroutes) and expansion of workspaces that resulted in the need to expand our environmental review area in some places. In addition, I do not believe that access roads and offsite staging/contractor yards were included in the initial consultation efforts. In order to streamline your review, we have prepared and attached a complete environmental review area that encompasses all currently proposed workspaces as well as a slight buffer in case any additional minor workspace changes occur.

It is our understanding, based on the IPaC system, that the red-cockaded woodpecker is the only federally listed species under the jurisdiction of the USFWS with potential to occur within the Project area. In addition, no critical habitat for the red-cockaded woodpecker will be impacted by the Project. Based on the information provided during previous consultations as well as the information provided herein, please let me know if the USFWS continues to concur with our determination that the Driftwood LNG Project is not likely to adversely affect the red-cockaded woodpecker.

If you have any questions or need any additional information, please do not hesitate to ask.

Thank you,

Amy Butler

Environmental Project Manager

Perennial Environmental Services, LLC

13100 Northwest Freeway, Ste. 150

Houston, Texas 77040

Office: (713) 360-0613

Cell: (425) 785-5995

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
() Will have no effect on those resources
(x) Is not likely to adversely affect those resources *lcw*
[Signature]
Supervisor
Louisiana Ecological Services Office
U.S. Fish and Wildlife Service

9/19/17
Date

From: Leslie Yoo
Sent: Friday, August 18, 2017 9:22 AM
To: amy_trahan@fws.gov



AIR PERMIT ROUTING/APPROVAL SLIP-Permits

AI No.	205247	Company	Driftwood LNG Pipeline	Date Received	3/29/2017
Activity No.	PER20170001	Facility	Gillis Compressor Station	Permit Type	
CDS No.	1360-00599	Permit No.	1360-00599-V0	Expedited Permit	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no

1. Technical Review	Approved	Date rec'd	Date FW	Comments
Permit Writer	Dan		7/10/17	
Air Quality / Modeling	mmv		7/10/17	w/ change OK all
Toxics				
Technical Advisor	Qmg		7/10/17	
Supervisor				
Other				
2. Management Review (if PN req'd)	Approved	Date rec'd	Date FW	Comments
Supervisor				
Manager	Qmg		7/10/17	BDJ 7/13/15, as noted
Assistant Secretary (PN)	Qmg		7/25/17	
3. Response to Comments (if PN req'd)	Approved	Date rec'd	Date FW	Comments
Supervisor				
Manager				
Administrator				
Legal (BFD)				
4. Final Approval	Approved	Date rec'd	Date FW	Comments
Supervisor				
Manager				
Administrator	BDJ		9/18/17	No comments received.
Assistant Secretary	Qmg		10/4/17	

1. Technical Review				
PN of App needed	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Date of PN of App		Newspaper
Fee paid	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no			
NSPS applies	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	PSD/NNSR applies	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	NESHAP applies <input checked="" type="checkbox"/> yes <input type="checkbox"/> no

2. Post-Technical Review				
Company technical review	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> n/a	E-mail date		Remarks received <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Surveillance technical review	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> n/a	E-mail date		Remarks received <input type="checkbox"/> yes <input type="checkbox"/> no

3. Public Notice				
Public Notice Required	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Initial TV		
Library				
PN newspaper 1/City	DEQ Web	PN Date	8/2/17	EDMS Verification <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
PN newspaper 2/City		PN Date		<input type="checkbox"/> yes <input type="checkbox"/> no
Company notification letter sent	Date mailed	8/2/17		
EPA PN notification e-mail sent	Date e-mailed	8/1/17		
OES PN mailout	Date	7/31/17		

4. Final Review				
Public comments received	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	EPA comments rec'd	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Date EPA Resp. to Comments-mailed
Company comments received	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	PN info entered into Permit Sec VI	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	Date EPA approved permit
Comments	NA			

JOHN BEL EDWARDS
GOVERNOR



CHUCK CARR BROWN, Ph.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

Certified Mail No. 7017 1070 0000 2658 2141

Agency Interest No. 205247
Activity No.: PER20170001

Ms. Cathy Rourke
Driftwood Pipeline LLC
1201 Louisiana Street, Suite 3100
Houston, TX 77002

RE: Part 70 Operating Permit, Gillis Compressor Station, Driftwood Pipeline LLC,
Fenton, Jefferson Davis Parish, Louisiana

Dear Ms. Rourke:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 operating permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the 2nd of October, 2022, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Please be advised that pursuant to provisions of the Environmental Quality Act and the Administrative Procedure Act, the Department may initiate review of a permit during its term. However, before it takes any action to modify, suspend or revoke a permit, the Department shall, in accordance with applicable statutes and regulations, notify the permittee by mail of the facts or operational conduct that warrant the intended action and provide the permittee with the opportunity to demonstrate compliance with all lawful requirements for the retention of the effective permit.

Done this 2nd day of October, 2017.

Permit No.: 1360-00599-V0

Sincerely,

A handwritten signature in black ink, appearing to read "Elliott B. Vega".

Elliott B. Vega
Assistant Secretary

EBV/DCN
cc: EPA Region 6

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GILLIS COMPRESSOR STATION
AGENCY INTEREST NO.: 205247
DRIFTWOOD PIPELINE LLC
FENTON, JEFFERSON DAVIS PARISH, LOUISIANA

I. Background

Driftwood Pipeline LLC proposes to construct and operate the Gillis Compressor Station, near Fenton, Jefferson Davis Parish.

II. Origin

A permit application dated March 27, 2017 as well as additional information dated June 26, 2017, was submitted requesting a Part 70 operating permit.

III. Description

Pressure of a natural gas stream will be boosted at the Gillis Compressor Station using five compressors driven by five 30,000 horsepower combustion turbines. Emissions are also from two 3,165 horsepower standby generator engines, a condensate tank, an oily water tank, truck loading and fugitives. Emissions from the station in tons per year are as follows:

Pollutant	Emissions
PM ₁₀ /PM _{2.5}	46.30
SO ₂	10.64
NO _x	214.97
CO	204.18
VOC	33.27
LAC 33:III.Chapter 51 Regulated Toxic Air Pollutants (TAP)	
1,3-Butadiene	0.005
Acetaldehyde	0.20
Acrolein	0.040
Benzene	0.08
Ethyl Benzene	0.15
Formaldehyde	6.72
n-Hexane	0.03
Methanol	0.02
Naphthalene	0.05
Polynuclear Aromatic Hydrocarbons	0.010

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**GILLIS COMPRESSOR STATION
AGENCY INTEREST NO.: 205247
DRIFTWOOD PIPELINE LLC
FENTON, JEFFERSON DAVIS PARISH, LOUISIANA**

Pollutant	Emissions
Propylene Oxide	0.13
Toluene	0.63
Xylenes	0.30
Totals	8.365

IV. Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NESHAP, and NSPS. PSD does not apply. The facility is minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VI. Public Notice

In accordance with LAC 33:III.531.A.3, a notice requesting public comment on the proposed permit was published on the department's website on August 2, 2017. On July 31, 2017, copies of the public notice were mailed to the individuals who have requested to be placed on the mailing list maintained by the Office of Environmental Services (OES). The proposed permit was submitted to EPA on August 1, 2017. No responses were received during the comment period.

VII. Effects on Ambient Air

Emissions were reviewed by the Air Permits Division to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and Louisiana Ambient Air Standards (AAS). The proposed station did not require the applicant to model emissions.

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**GILLIS COMPRESSOR STATION
AGENCY INTEREST NO.: 205247
DRIFTWOOD PIPELINE LLC
FENTON, JEFFERSON DAVIS PARISH, LOUISIANA**

VIII. General Condition XVII Activities

Description	Schedule (MM scf/yr)	Emissions (tons/year)		
		VOC	TAP/HAP	H ₂ S
Startup/Shutdown Vents	12.12	2.78	0.14	< 0.01
Site-wide Blowdown	6.00	1.38	0.08	< 0.01

IX. Insignificant Activities (LAC 33:III.501.B.5)

ID No.:	Description	Capacity (gallons)	Citation

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GILLIS COMPRESSOR STATION

AGENCY INTEREST NO.: 205247

DRIFTWOOD PIPELINE LLC

FENTON, JEFFERSON DAVIS PARISH, LOUISIANA

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.								LAC 33:III.Chapter									
		509	2103	2104	2107	2111	2113	2115	2121	2	5 ^A	9	11	13	15	29	51*	56	59
EQT0001	TURB01 – Turbine 1												3	1	3				
EQT0002	TURB02 – Turbine 2												3	1	3				
EQT0003	TURB03 – Turbine 3												3	1	3				
EQT0004	TURB04 – Turbine 4												3	1	3				
EQT0005	TURB05 – Turbine 5												3	1	3				
EQT0006	GEN01 – Standby Generator 1												3	1	3				
EQT0007	GEN02 – Standby Generator 2												3	1	3				
EQT0008	CTK01 – Condensate Storage Tank		2	3															
EQT0009	OWTK01 – Oily Water Tank		1																
EQT0010	TL01 – Truck Loading				3														
FUG0001	FUG – Gillis Compressor Station Fugitives					1			3										
UNF0001	A1205247 – Gillis Compressor Station						1	3		1	1	1	1	1		1	3	1	3

KEY TO MATRIX

* The regulations indicated above are State Only regulations.

^A All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

1 - The regulations have applicable requirements which apply to this particular emission source.

- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**GILLIS COMPRESSOR STATION
AGENCY INTEREST NO.: 205247
DRIFTWOOD PIPELINE LLC
FENTON, JEFFERSON DAVIS PARISH, LOUISIANA**

X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60						40CFR 61				40 CFR 63						40 CFR			
		A	GG	Kb	4J	4K	40a	A	F	M	FF	A	HH	HHH	4E	4Y	4Z	64	68	82	
EQT0001	TURB01 – Turbine 1	1	2			1										3		2			
EQT0002	TURB02 – Turbine 2	1	2			1										3		2			
EQT0003	TURB03 – Turbine 3	1	2			1										3		2			
EQT0004	TURB04 – Turbine 4	1	2			1										3		2			
EQT0005	TURB05 – Turbine 5	1	2			1										3		2			
EQT0006	GEN01 – Standby Generator 1	1			1							1					1	3			
EQT0007	GEN02 – Standby Generator 2	1			1							1					1	3			
EQT0008	CTK01 – Condensate Storage Tank			3			3														
EQT0009	OWTK01 – Oily Water Tank			3			3														
EQT0010	TL01 – Truck Loading																				
FUG0001	FUG – Gillis Compressor Station Fugitives																				
UNF0001	AI205247 – Gillis Compressor Station	1					1					1	3	3	3				3	1	

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
- Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GILLIS COMPRESSOR STATION

AGENCY INTEREST NO.: 205247

DRIFTWOOD PIPELINE LLC

FENTON, JEFFERSON DAVIS PARISH, LOUISIANA

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
EQT0001 – EQT0005 Turbines	LAC 33:III.Chapter 11	Does not apply	LAC 33:III.1107.B.1	Fueled by natural gas
	LAC 33:III.Chapter 15	Does not apply	LAC 33:III.1502.A.3	SO ₂ emissions < 5 tons/year
	40 CFR 60 Subpart GG	Does not apply	40 CFR 60. 4305(b)	Subject to 40 CFR 60 Subpart KKKK
	40 CFR 63 Subpart YYYY	Does not apply	40 CFR 63.6085	The station is not a major source of HAP
	40 CFR 64 CAM	Exempt	40 CFR 64.2(b)(1)(i)	Subject to 40 CFR 60 Subpart KKKK
EQT0006, EQT0007 Engines	LAC 33:III.Chapter 11	Does not apply	LAC 33:III.1107.B.1	Fueled by natural gas
	LAC 33:III.Chapter 15	Does not apply	LAC 33:III.1502.A.3	SO ₂ emissions < 5 tons/year
	40 CFR 64 - CAM	Does not apply	40 CFR 64.2(a)(2)	Do not use active control devices
EQT0008 Condensate Tank	LAC 33:III.2103	Does not apply	LAC 33:III.2103.G.1	Volume < 420,000 gallons stores condensate
	40 CFR 60 Subpart Kb	Does not apply	40 CFR 60. 110b(a)	Volume < 75 m ³
	40 CFR 60 Subpart OOOOa	Does not apply	40 CFR 60.5365a(e)	Potential VOC emissions < 6 tons/year
EQT0009 Oily Water Tank	40 CFR 60 Subpart Kb	Does not apply	40 CFR 60. 110b(a)	Volume < 75 m ³
	40 CFR 60 Subpart OOOOa	Does not apply	40 CFR 60.5365a(e)	Potential VOC emissions < 6 tons/year
EQT0010 Truck Loading	LAC 33:III.2107 Truck Loading	Does not apply	LAC 33:III.2107.A.1.a	Daily throughput < 20,000 gallons
FUG0001 - Fugitives	LAC 33:III.2121	Does not apply	LAC 33:III.2121.A	The station is not an affected source of the section
UNF0001 Facility Wide	LAC 33:III.2115	Does not apply	LAC 33:III.2115.A	VOC emissions from each vent < 100 tons/yr
	LAC 33:III.Chapter 51	Does not apply	LAC 33:III.5101	TAP emissions < 10/25 tons/year
	LAC 33:III.Chapter 59 40 CFR Part 68	Does not apply	LAC 33:III.5901 40 CFR 68.130	Does not store or process any referenced list substance greater than the threshold amounts

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**GILLIS COMPRESSOR STATION
AGENCY INTEREST NO.: 205247
DRIFTWOOD PIPELINE LLC
FENTON, JEFFERSON DAVIS PARISH, LOUISIANA**

XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
UNF0001 Facility Wide	40 CFR 63 Subpart HH	Does not apply	40 CFR 63.760	The station is not a natural gas production facility
	40 CFR 63 Subpart HHH	Does not apply	40 CFR 63.1270(a)	The station is not a major source of HAP
	40 CFR 63 Subpart EEEE	Does not apply	40 CFR 63.2334	HAP emissions < 10/25 tons/year
The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit				

INVENTORIES

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station
Activity Number: PER20170001
Permit Number: 1360-00599-V0
Air - Title V Regular Permit Initial

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Gillis Compressor Station						
EQT 0001	TURB01 - Turbine 1			30000 horsepower		8760 hr/yr
EQT 0002	TURB02 - Turbine 2			30000 horsepower		8760 hr/yr
EQT 0003	TURB03 - Turbine 3			30000 horsepower		8760 hr/yr
EQT 0004	TURB04 - Turbine 4			30000 horsepower		8760 hr/yr
EQT 0005	TURB05 - Turbine 5			30000 horsepower		8760 hr/yr
EQT 0006	GEN01 - Standby Generator 1			3165 horsepower		100 hr/yr
EQT 0007	GEN02 - Standby Generator 2			3165 horsepower		100 hr/yr
EQT 0008	CTK01 - Condensate Storage Tank	4324 gallons	8648 gallons/yr			8760 hr/yr
EQT 0009	OWTK01 - Oily Water Tank	4324 gallons	8648 gallons/yr			8760 hr/yr
EQT 0010	TL01 - Truck Loading		4324 gallons/hr	17297 gallons/yr		8760 hr/yr
FUG 0001	FUG - Gillis Compressor Station Fugitives					8760 hr/yr

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Gillis Compressor Station							
EQT 0001	TURB01 - Turbine 1	122	367943	8		50	797
EQT 0002	TURB02 - Turbine 2	122	367943	8		50	797
EQT 0003	TURB03 - Turbine 3	122	367943	8		50	797
EQT 0004	TURB04 - Turbine 4	122	367943	8		50	797
EQT 0005	TURB05 - Turbine 5	122	367943	8		50	797
EQT 0006	GEN01 - Standby Generator 1	177	5338	.8		15	735
EQT 0007	GEN02 - Standby Generator 2	177	5338	.8		15	735

Relationships:

Subject Item Groups:

ID	Group Type	Group Description
CRG 0001	Common Requirements Group	TURBINES - Common Requirements for Compressor Turbines
CRG 0002	Common Requirements Group	ENGINES - Common Requirements for Generator Engines
UNF 0001	Unit or Facility Wide	AI205247 - Gillis Compressor Station

Group Membership:

ID	Description	Member of Groups
EQT 0001	TURB01 - Turbine 1	CRG0000000001
EQT 0002	TURB02 - Turbine 2	CRG0000000001

INVENTORIES

AI ID: 205247 - Driftwood LNG Pipeline - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Group Membership:

ID	Description	Member of Groups
EQT 0003	TURB03 - Turbine 3	CRG0000000001
EQT 0004	TURB04 - Turbine 4	CRG0000000001
EQT 0005	TURB05 - Turbine 5	CRG0000000001
EQT 0006	GEN01 - Standby Generator 1	CRG0000000002
EQT 0007	GEN02 - Standby Generator 2	CRG0000000002

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
1430	1430 Natural Gas Comp (Turbines)	1500	100 hp

SIC Codes:

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 205247 - Driftwood LNG Pipeline - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Subject Item	PM10			PM2.5			SO2			NOx		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Gillis Compressor Station												
EQT 0001 TURB01	2.11	2.26	9.26	2.11	2.26	9.26	0.49	0.97	2.13	9.78	16.06	42.84
EQT 0002 TURB02	2.11	2.26	9.26	2.11	2.26	9.26	0.49	0.97	2.13	9.78	16.06	42.84
EQT 0003 TURB03	2.11	2.26	9.26	2.11	2.26	9.26	0.49	0.97	2.13	9.78	16.06	42.84
EQT 0004 TURB04	2.11	2.26	9.26	2.11	2.26	9.26	0.49	0.97	2.13	9.78	16.06	42.84
EQT 0005 TURB05	2.11	2.26	9.26	2.11	2.26	9.26	0.49	0.97	2.13	9.78	16.06	42.84
EQT 0006 GEN01	<0.01	0.20	0.01	<0.01	0.20	0.01	<0.01	0.01	<0.01	0.09	7.60	0.38
EQT 0007 GEN02	<0.01	0.20	0.01	<0.01	0.20	0.01	<0.01	0.01	<0.01	0.09	7.60	0.38
EQT 0008 CTK01												
EQT 0009 OWTK01												
EQT 0010 TL01												
FUG 0001 FUG												

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Subject Item	CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Gillis Compressor Station						
EQT 0001 TURB01	9.27	55.99	40.60	1.31	1.87	5.74
EQT 0002 TURB02	9.27	55.99	40.60	1.31	1.87	5.74
EQT 0003 TURB03	9.27	55.99	40.60	1.31	1.87	5.74
EQT 0004 TURB04	9.27	55.99	40.60	1.31	1.87	5.74
EQT 0005 TURB05	9.27	55.99	40.60	1.31	1.87	5.74
EQT 0006 GEN01	0.13	11.63	0.58	0.02	1.90	0.10
EQT 0007 GEN02	0.13	11.63	0.58	0.02	1.90	0.10
EQT 0008 CTK01				0.93	0.93	4.06
EQT 0009 OWTK01				0.03	0.03	0.11
EQT 0010 TL01				0.01	21.18	0.04
FUG 0001 FUG				0.03		0.15

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0001 TURB01	1,3-Butadiene	<0.001	<0.001	<0.001
	Acetaldehyde	0.01	0.01	0.04
	Acrolein	0.001	0.001	0.006
	Benzene	<0.01	<0.01	0.01
	Ethyl benzene	0.01	0.01	0.03
	Formaldehyde	0.30	0.32	1.32
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	<0.001	0.002
	Propylene oxide	0.01	0.01	0.03
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	0.01	0.01	0.06
EQT 0002 TURB02	1,3-Butadiene	<0.001	<0.001	<0.001
	Acetaldehyde	0.01	0.01	0.04
	Acrolein	0.001	0.001	0.006
	Benzene	<0.01	<0.01	0.01
	Ethyl benzene	0.01	0.01	0.03
	Formaldehyde	0.30	0.32	1.32
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	<0.001	0.002
	Propylene oxide	0.01	0.01	0.03
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	0.01	0.01	0.06
EQT 0003 TURB03	1,3-Butadiene	<0.001	<0.001	<0.001
	Acetaldehyde	0.01	0.01	0.04
	Acrolein	0.001	0.001	0.006
	Benzene	<0.01	<0.01	0.01
	Ethyl benzene	0.01	0.01	0.03
	Formaldehyde	0.30	0.32	1.32
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	<0.001	0.002
	Propylene oxide	0.01	0.01	0.03
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	0.01	0.01	0.06
EQT 0004 TURB04	1,3-Butadiene	<0.001	<0.001	<0.001

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 205247 - Driftwood LNG Pipeline - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0004 TURB04	Acetaldehyde	0.01	0.01	0.04
	Acrolein	0.001	0.001	0.006
	Benzene	<0.01	<0.01	0.01
	Ethyl benzene	0.01	0.01	0.03
	Formaldehyde	0.30	0.32	1.32
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	<0.001	0.002
	Propylene oxide	0.01	0.01	0.03
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	0.01	0.01	0.06
EQT 0005 TURB05	1,3-Butadiene	<0.001	<0.001	<0.001
	Acetaldehyde	0.01	0.01	0.04
	Acrolein	0.001	0.001	0.006
	Benzene	<0.01	<0.01	0.01
	Ethyl benzene	0.01	0.01	0.03
	Formaldehyde	0.30	0.32	1.32
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	<0.001	0.002
	Propylene oxide	0.01	0.01	0.03
	Toluene	0.03	0.03	0.12
	Xylene (mixed isomers)	0.01	0.01	0.06
EQT 0006 GEN01	Acetaldehyde	<0.01	0.16	0.01
	Acrolein	0.001	0.101	0.005
	Benzene	<0.01	0.01	<0.01
	Formaldehyde	0.01	1.04	0.05
	Methanol	<0.01	0.05	<0.01
	n-Hexane	<0.01	0.02	<0.01
	Toluene	<0.01	0.01	<0.01
EQT 0007 GEN02	Acetaldehyde	<0.01	0.16	0.01
	Acrolein	0.001	0.101	0.005
	Benzene	<0.01	0.01	<0.01
	Formaldehyde	0.01	1.04	0.05
	Methanol	<0.01	0.05	<0.01
	n-Hexane	<0.01	0.02	<0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 205247 - Driftwood LNG Pipeline - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0007 GEN02	Toluene	<0.01	0.01	<0.01
FUG 0001 FUG	Benzene	<0.01		<0.01
	n-Hexane	<0.01		0.01
	Toluene	<0.01		<0.01
UNF 0001 AI205247	1,3-Butadiene			0.005
	Acetaldehyde			0.20
	Acrolein			0.040
	Benzene			0.08
	Ethyl benzene			0.15
	Formaldehyde			6.72
	Methanol			0.02
	n-Hexane			0.03
	Naphthalene			0.05
	Polynuclear Aromatic Hydrocarbons			0.010
	Propylene oxide			0.13
	Toluene			0.63
	Xylene (mixed isomers)			0.30

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

SPECIFIC REQUIREMENTS

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

CRG 0001 TURBINES - Common Requirements for Compressor Turbines

Group Members: EQT 0001 EQT 0002 EQT 0003 EQT 0004 EQT 0005

- 1 [40 CFR 60.4320(a)] Nitrogen oxides (NOx) \leq 25 ppm @ 15%O₂. Subpart KKKK. [40 CFR 60.4320(a)]
Which Months: All Year Statistical Basis: Hourly average
- 2 [40 CFR 60.4330(a)(1)] Sulfur dioxide \leq lb/MWh (xxx ng/J) gross output. Subpart KKKK. [40 CFR 60.4330(a)(1)]
Which Months: All Year Statistical Basis: None specified
- 3 [40 CFR 60.4330(a)(2)] Fuel sulfur content \leq 0.060 lb/MMBTU (26 ng/J) heat input. If the turbine simultaneously fires multiple fuels, each fuel must meet this requirement. Subpart KKKK. [40 CFR 60.4330(a)(2)]
Which Months: All Year Statistical Basis: None specified
- 4 [40 CFR 60.4333(a)] Operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. Subpart KKKK. [40 CFR 60.4333(a)]
- 5 [40 CFR 60.4340(a)] Demonstrate continuous compliance for NOx by performing annual performance tests in accordance with 40 CFR 60.4400. Subpart KKKK. [40 CFR 60.4340(a)]
- 6 [40 CFR 60.4365] Sulfur dioxide (SO₂) \leq 0.060 lb/MMBTU (26 ng/J). Use one of the sources of information specified in 40 CFR 60.4365(a) and (b) to make the required demonstration. Subpart KKKK.
Which Months: All Year Statistical Basis: None specified
- 7 [40 CFR 60.4375(b)] Submit performance test results: Due in writing before the close of business on the 60th day following the completion of the performance test. Submit KKKK. [40 CFR 60.4375(b)]
- 8 [40 CFR 60.4395] Postmark the excess emissions report required under 40 CFR 60.7(c) by the 30th day following the end of each 6-month period. Subpart KKKK.
- 9 [40 CFR 60.4400] Conduct an initial performance test for NOx, as required in 40 CFR 60.8. Use one of methodologies specified in 40 CFR 60.4400(a)(1)(i) and (a)(1)(ii). Subpart KKKK.
- 10 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. (Complies by using sweet natural gas as fuel).
Which Months: All Year Statistical Basis: Six-minute average
- 11 [LAC 33:III.507.H.1.a] Conduct performance/emissions tests for CO emissions annually, using: New Source Performance Standards, 40 CFR 60, Appendix A, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Use alternate stack test methods only with the prior approval of the Office of Environmental Services. Provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits, as required by LAC 33:III.913.
- 12 [LAC 33:III.507.H.1.a] Submit notification: Due to the Office of Environmental Services at least 30 days prior to any LDEQ required performance/emissions test. Submit notification in order to provide the opportunity to conduct a pretest meeting and observe the emission testing. Submit notification at least 45 days prior to the deadline specified in this permit indicating the reason that the test will not be conducted by the specified deadline, if any LDEQ required performance/emissions test will not be conducted by the deadline specified in this permit. This notification will be evaluated by the department on a case-by-case basis to determine if an extension to the deadline for testing specified in this permit is warranted. The deadline for testing specified in this permit shall remain in effect until the department responds in writing with an extension to this deadline.

SPECIFIC REQUIREMENTS

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

CRG 0001 TURBINES - Common Requirements for Compressor Turbines

- 13 [LAC 33:III.507.H.1.a] Submit report: Due within 60 days after performance/emissions test. Submit performance/emissions test results to the Office of Environmental Services. Include any necessary conversion into the units of any applicable standard (lbs/MMBtu, gr/dscf, lbs SO₂ / ton 100% H₂SO₄, etc.). Include plant and in house laboratory data to support production values (example: how many tons of 100% equivalent H₂SO₄ was being produced).

CRG 0002 ENGINES - Common Requirements for Generator Engines

Group Members: EQT 0006 EQT 0007

- 14 [40 CFR 60.4233(e)] (Excluding formaldehyde) VOC, Total \leq 1.0 g/BHP-hr (0.0022 lb/HP-hr; 86 ppmv at 15% O₂). Subpart JJJJ. [40 CFR 60.4233(e)]
Which Months: All Year Statistical Basis: None specified
- 15 [40 CFR 60.4233(e)] Carbon monoxide (CO) \leq 4.0 g/BHP-hr (0.0088 lb/HP-hr; 540 ppmv at 15% O₂). Subpart JJJJ. [40 CFR 60.4233(e)]
Which Months: All Year Statistical Basis: None specified
- 16 [40 CFR 60.4233(e)] Nitrogen oxides (NO_x) \leq 2.0 g/BHP-hr (0.0044 lb/HP-hr; 160 ppmv at 15% O₂). Subpart JJJJ. [40 CFR 60.4233(e)]
Which Months: All Year Statistical Basis: None specified
- 17 [40 CFR 60.4234] Operate and maintain stationary SI ICE to achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine.
Subpart JJJJ.
- 18 [40 CFR 60.4237] Operating time monitored by hour/time monitor continuously during operation, if the engine meets the standards applicable to emergency engines. Install a non-resettable hour meter upon startup of engine. Subpart JJJJ.
Which Months: All Year Statistical Basis: None specified
- 19 [40 CFR 60.4243(b)(1)] For certified engines: Ensure engine is certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year.
Demonstrate compliance according to one of the methods specified in 40 CFR 60.4243(a). Subpart JJJJ. [40 CFR 60.4243(b)(1)]
- 20 [40 CFR 60.4243(b)(2)] For non-certified engines: Demonstrate compliance according to the emission standards specified in 40 CFR 60.4233(e), the requirements specified in 40 CFR 60.4244, as applicable, and the requirements specified in 40 CFR 60.4243(b)(2)(i) and (b)(2)(ii), as applicable. Subpart JJJJ. [40 CFR 60.4243(b)(2)]
- 21 [40 CFR 60.4243(b)(2)] For non-certified engines: Ensure that the engine is maintained and operated to the extent practicable in a manner consistent with good air pollution control practice for minimizing emissions. Subpart JJJJ. [40 CFR 60.4243(b)(2)]
- 22 [40 CFR 60.4243(d)(2)(i)] Operate for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by the federal, state or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. LDEQ may be petitioned for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if records are maintained indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Subpart JJJJ. [40 CFR 60.4243(d)(2)(i)]
- 23 [40 CFR 60.4243(d)(3)] Operate for up to 50 hours per calendar year in non-emergency situations. Count the 50 hours of operation in non-emergency situations as part of the 100 hours per calendar year for maintenance, testing, and emergency demand response provided in 40 CFR 60.4243(4)(2). Do not use the 50 hours per calendar year for non-emergency situations for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except as provided in 40 CFR 60.4243(f)(3)(i). Subpart JJJJ. [40 CFR 60.4243(d)(3)]

SPECIFIC REQUIREMENTS

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

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CRG 0002 ENGINES - Common Requirements for Generator Engines

- 24 [40 CFR 60.4243(d)] Operate according to the requirements in 40 CFR 60.4243(d)(1), (d)(2)(i), and (d)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than as described in 40 CFR 60.4243(d)(1), (d)(2)(i), and (d)(3) is prohibited. If the engine is not operated according to these requirements, the engine will not be considered an emergency engine under 40 CFR 60 Subpart JJJJ and must meet all requirements for non-emergency engines. Subpart JJJJ. [40 CFR 60.4243(d)]
- 25 [40 CFR 60.4243(e)] Operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations. Keep records of such use. If propane is used for more than 100 hours per year and the engine is not certified to the emission standards when using propane, conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. Subpart JJJJ. [40 CFR 60.4243(e)]
- 26 [40 CFR 60.4244] For non-certified engines: Conduct performance tests by following the procedures in 40 CFR 60.4244(a) through (g). Subpart JJJJ.
- 27 [40 CFR 60.4245(a)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep records of the information in 40 CFR 60.4245(a)(1) through (a)(4). Subpart JJJJ. [40 CFR 60.4245(a)]
- 28 [40 CFR 60.4245(b)] Operating time recordkeeping by electronic or hard copy upon occurrence of event, if the engine meets the standards applicable to emergency engines. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. Subpart JJJJ. [40 CFR 60.4245(b)]
- 29 [40 CFR 60.4245(c)] For non-certified engines: Submit an initial notification as required in 40 CFR 60.7(a)(1). Include the information in 40 CFR 60.4245(c)(1) through (c)(5). Subpart JJJJ. [40 CFR 60.4245(c)]
- 30 [40 CFR 60.4245(d)] For non-certified engines: Submit performance test results: Due within 60 days after each test conducted according to 40 CFR 60.4244 has been completed. Subpart JJJJ. [40 CFR 60.4245(d)]
- 31 [40 CFR 63.6590(c)] Meet the requirements of 40 CFR 60 Subpart IIII for compression ignition engines or 40 CFR 60 Subpart JJJJ for spark ignition engines. Subpart ZZZZ. [40 CFR 63.6590(c)]
- 32 [LAC 33:III.1311.C] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. (Complies by using sweet natural gas as fuel).
Which Months: All Year Statistical Basis: Six-minute average

FUG 0001 FUG - Gillis Compressor Station Fugitives

- 33 [LAC 33:III.2111] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

UNF 0001 AI205247 - Gillis Compressor Station

- 34 [40 CFR 60.] All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.
- 35 [40 CFR 63.] All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A as delineated in 40 CFR 63 Subpart ZZZZ.
- 36 [40 CFR 82.Subpart F] Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B.

SPECIFIC REQUIREMENTS

AI ID: 205247 - Driftwood Pipeline LLC - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

UNF 0001 AI205247 - Gillis Compressor Station

- | | |
|------------------------|---|
| 37 [LAC 33:III.1103] | Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensifies an existing traffic hazard condition are prohibited. |
| 38 [LAC 33:III.1303.B] | Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. |
| 39 [LAC 33:III.2113.A] | Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping includes, but is not limited to, the practices listed in LAC 33:III.2113.A.1 through A.5. |
| 40 [LAC 33:III.219] | Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. |
| 41 [LAC 33:III.2901.D] | Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited. |
| 42 [LAC 33:III.2901.F] | If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G. |
| 43 [LAC 33:III.535] | Comply with the Part 70 General Conditions as set forth in LAC 33:III.535 and the Louisiana General Conditions as set forth in LAC 33:III.537. [LAC 33:III.535, LAC 33:III.537] |
| 44 [LAC 33:III.5611.A] | Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency: Due within 30 days after requested by DEQ. |
| 45 [LAC 33:III.5611.B] | During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by DEQ to enforce these regulations. |
| 46 [LAC 33:III.919] | Submit Emission Inventory (EI)/Annual Emissions Statement : Due annually, by the 30th of April to the Office of Environmental Services, for the reporting period of the previous calendar year that coincides with period of ownership or operatorship, until released from reporting, in writing, by DEQ. Submit both an emissions inventory and the certification statement required by LAC 33:III.919.F.1.c, separately for each AI, in a format specified by DEQ. To request a release from reporting, submit a completed Request for Release from Emissions Inventory Reporting form (form# 7365) to the Office of Environmental Services. |

General Information

AI ID: 205247 Driftwood LNG Pipeline - Gillis Compressor Station

Activity Number: PER20170001

Permit Number: 1360-00599-V0

Air - Title V Regular Permit Initial

Also Known As:	ID	Name	User Group	Start Date
	1360-00599	CDS Number	CDS Number	03-30-2017

Physical Location: East side of Calcasieu River
Gillis, LA 70611

Mailing Address: 1201 Louisiana St, Suite 3100
Houston, TX 77002

Related Organizations:	Name	Address	Phone (Type)	Relationship
	Driftwood LNG LLC	1201 Louisiana St Ste 3100 Houston, TX 77002		Air Billing Party for
	Driftwood LNG LLC	1201 Louisiana St Ste 3100 Houston, TX 77002		Operates

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may email your changes to facupdate@la.gov.



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

October 3, 2017 F/SER46/RH:jk
225/389-0508

Ms. Amy Butler, Environmental Project Manager
Perennial Environmental Services
13100 Northwest Freeway, Suite 150
Houston, Texas 77065

Dear Ms. Butler:

By emails dated August 25, 2017, September 13, 2017, and September 25, 2017, you transmitted to staff of NOAA's National Marine Fisheries Service (NMFS) information pertaining to a Beneficial Use of Dredge Material (BUDM) Plan for sediment to be generated by the construction of the Driftwood Liquefied Natural Gas terminal (LNG) in Calcasieu Parish, Louisiana. The original email included some of the necessary components of an essential fish habitat (EFH) assessment. The email also transmitted a letter dated August 21, 2017, which requested NMFS' concurrence with a determination that construction of the Driftwood LNG terminal, in combination with the mitigation/beneficial use plan, would not result in significant impacts on EFH.

Based on our review of the information transmitted by your emails, construction of the Driftwood LNG terminal would result in the destruction of 126.2 acres of tidally influenced marsh and 10.6 acres of open water, both of which are categorized as EFH under provisions of the Magnuson-Stevens Fishery Conservation and Management Act. Approximately 7 million cubic yards of dredged material would be generated during the construction of the terminal. Driftwood LNG proposes to use most of the dredged material, as well as sediment generated during future maintenance dredging events, to create marsh elevations in open water areas near the terminal site. Much of the acreage proposed for beneficial use placement would be located in non-tidally influenced areas and therefore, would not serve as potential mitigation sites to offset terminal impacts on EFH. However, Units 5 and 8 having 169 acres and 774 acres of open water respectively for marsh creation purposes, would be open to tidal influence and categorized as EFH. It should be noted Unit 8 currently is not tidally influenced, therefore, implementation of the BUDM Plan would create a total of 975 acres of EFH in that area alone.

Important information pertaining to ensuring the beneficial use/mitigation areas perform as desired was provided by various emails referenced previously. This information includes initial and final target elevations, construction cross sections of tidal channels and ponds to be included in the mitigation areas, performance standards, and monitoring activities. According to the BUDM Plan, performance standards for the beneficial use areas associated with wetland

mitigation for the Driftwood terminal would follow US Army Corps of Engineers (USACE) guidelines to be set forth in a Permittee Responsible Mitigation Plan (PRMP). At this time, a PRMP has not yet been developed. However, the NMFS presumes the USACE would coordinate closely with NMFS on the development of the PRMP.

The Federal Energy Regulatory Commission (FERC) and USACE would be responsible for regulating activities associated with the construction and operation of the Driftwood LNG terminal. The NMFS will be coordinating with FERC on the environmental impact statement to be finalized for this project, and with the USACE on the Clean Water Act and Rivers and Harbors Act authorizations required by their Regulatory Division. The NMFS assumes both agencies would require adherence with the BUDM Plan, and the USACE would require adherence with the PRMP. Given these assumptions, NMFS concurs with the determination that construction of the Driftwood LNG terminal, in combination with the required implementation of the BUDM and PRMP, would not result in significant adverse impacts on EFH.

We appreciate your coordination efforts on this project. If you have questions regarding our comments, please coordinate further with Richard Hartman at (225) 389-0508, extension 203 or Twyla Cheatwood at (225) 389-0508, extension 209.

Sincerely,



Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

c:
EPA, Dallas, Gutierrez
LA DWF, Balkum
LA DNR, Morgan
F/SER46, Swafford
F/SER4, Dale
Files

**UNITED STATES DEPARTMENT OF COMMERCE**

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

F/SER31: MET

Amy Butler
Environmental Project Manager
Perennial Environmental Services, LLC
13100 Northwest Freeway, Suite 150
Houston, Texas 77040

FEB 14 2018

Kelley Muñoz
Division of Gas-Environment and Engineering
Federal Energy Regulatory Commission
888 First Street, N.E., PJ-11.3
Washington, DC 20426

Dear Ms. Butler and Ms. Muñoz:

This letter responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act (ESA) for the project described below. While the Federal Energy Regulatory Commission (FERC) is the official Federal action agency for this project, Driftwood LNG LLC (Driftwood LNG) has been designated as FERC's non-federal representative for the purposes of this informal consultation process.

Docket Numbers	Applicant	SER Number	Project Type
CP17-117-000 CP17-118-000	Driftwood LNG	SER-2017-18941	LNG terminal project

Consultation History

We received your letter requesting consultation on October 16, 2017, and initiated consultation on that day.

Project Location

Address	Latitude/Longitude	Water body
Calcasieu Ship Channel, southwest of the City of Lake Charles, Louisiana	30.09219°N, 93.32788°W (North American Datum 1983)	Calcasieu River

Proposed Action

Driftwood LNG proposes to construct and operate a new natural gas liquefaction and export facility (Facility) located on the west bank of the Calcasieu Ship Channel between mile markers 22 and 23 near Carlyss in Calcasieu Parish, Louisiana. The Facility will include five liquefaction plants capable of producing up to 26 million tons per annum of liquefied natural gas (LNG) for



global export. To provide natural gas feedstock to the Facility, Driftwood Pipeline LLC is proposing an associated approximately 96-mile interstate natural gas pipeline (the Pipeline). The Pipeline will include three compressor stations, as well as an approximately 3.4-mile lateral pipeline, and 14 interconnections with interstate natural gas pipelines. Figure 1 shows the general locations of the proposed Project facilities including the new pipeline. Figure 2 shows a more detailed layout of the LNG Facility.

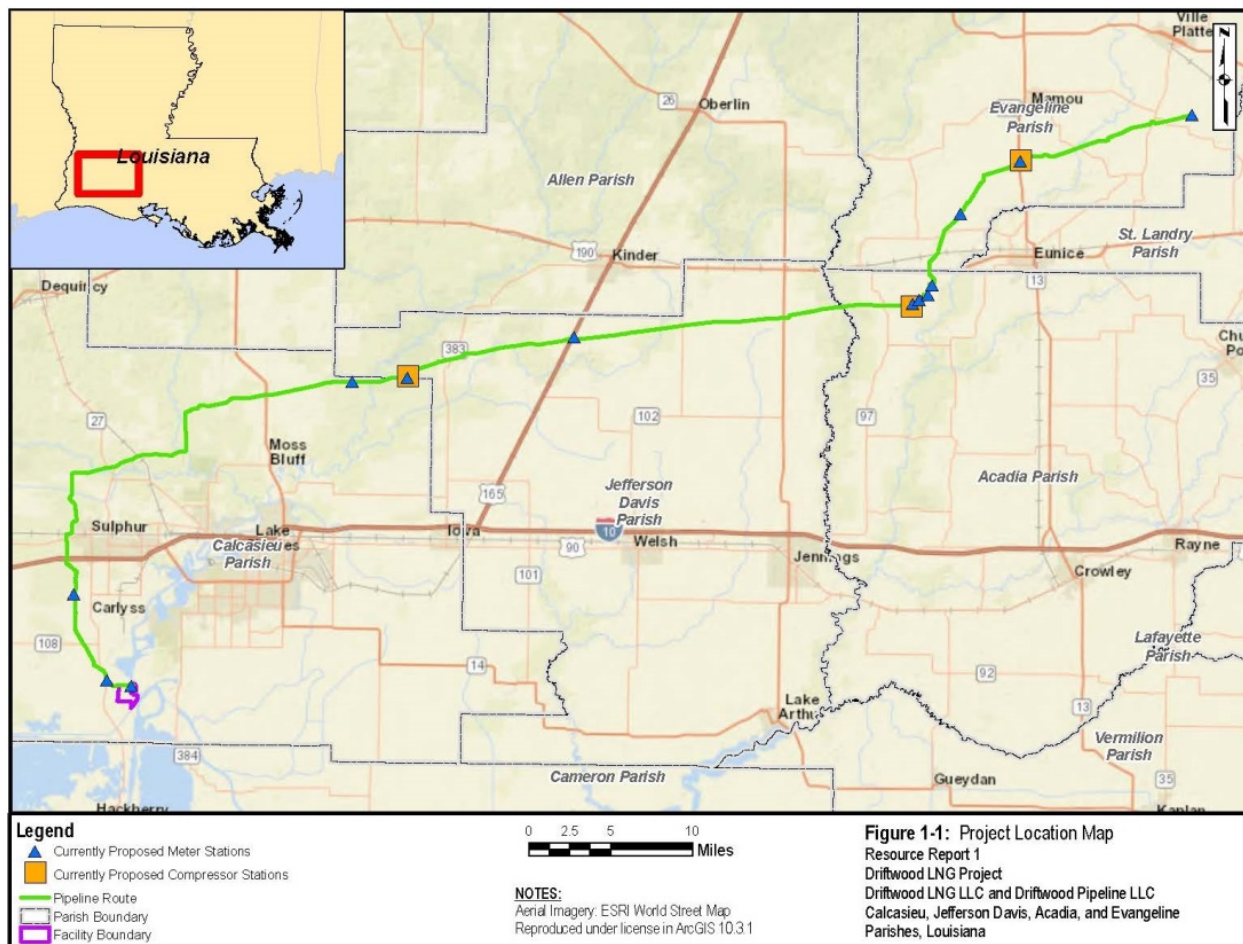


Figure 1. Overview map of project location including the proposed pipeline and LNG Facility (Figure 1-1 in Resource Report 1 for the Driftwood LNG Project)

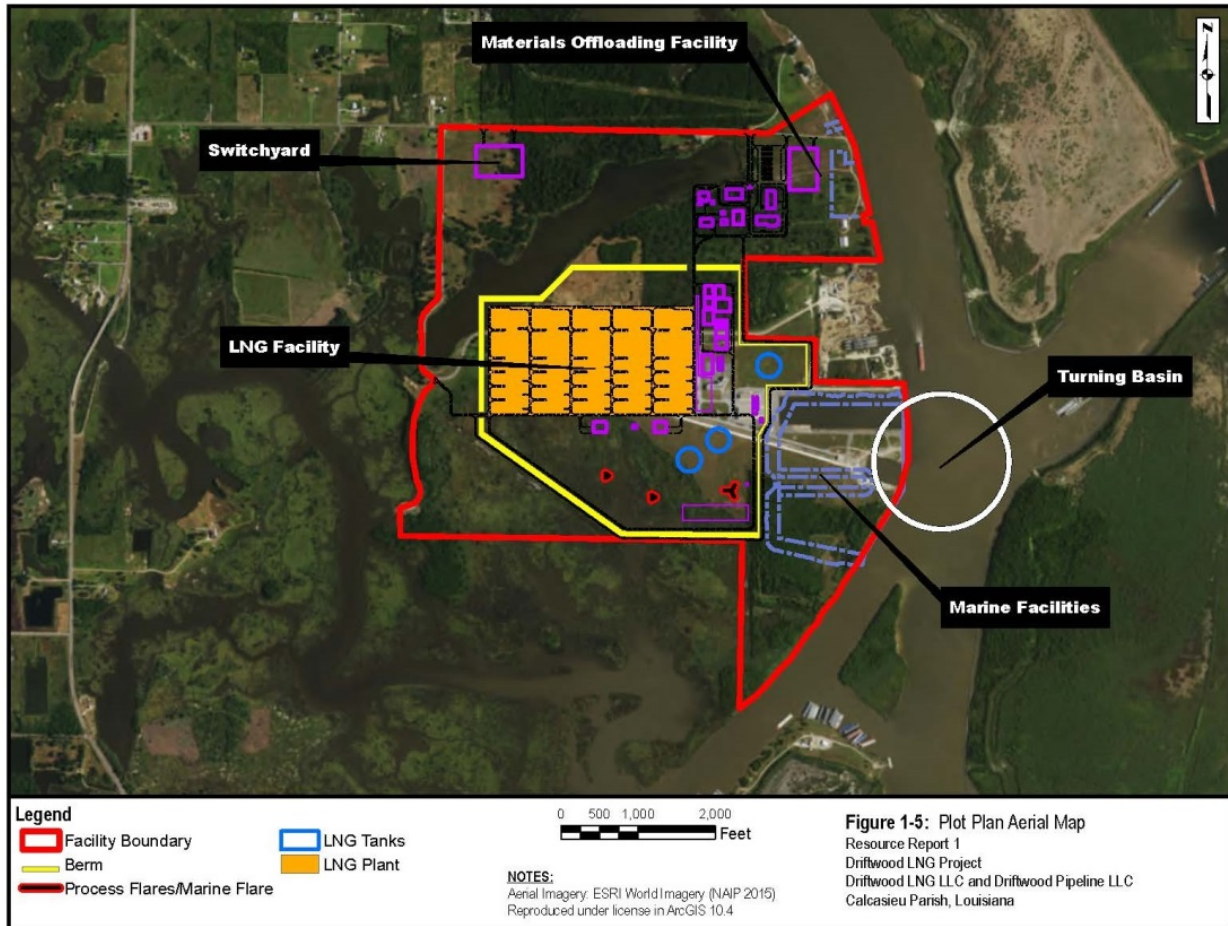


Figure 2. Detailed overview of proposed LNG Facility (Figure 1-5 in Resource Report 1 for the Driftwood LNG Project)

The proposed LNG Facility site is located on a 790-acre property on the west bank of the Calcasieu Ship Channel. Marine berths will be dredged into the bank of the Calcasieu Ship Channel and designed to allow the safe berthing of three LNG carrier vessels (LNGCs) up to 216,000 cubic meters each. A turning basin will be located adjacent to the marine berths within the Calcasieu Ship Channel. The basin will be approximately 1,750 feet in diameter and will be dredged to the same operational depth as the Calcasieu Ship Channel (41.9 feet below North American Vertical Datum of 1988 (NAVD 88)). At full capacity, the Facility will load one LNGC per day or approximately 365 LNGCs per year.

The total number of receipts/shipments for commercial vessels entering and leaving Galveston Bay, Sabine Pass, and Calcasieu Pass in 2013 was approximately 122,610 trips for self-propelled vessels and barges (Table 1). An undetermined number of small passenger vessels, sightseeing, and charter fishing boats with less than 18 ft of draft account for a significant amount of additional traffic for the region spanned by these ports.

Table 1. Large Commercial Vessel Traffic Entering Nearby Ports in 2013

Location/Port	Cargo Vessel Trips (Includes Self-Propelled Vessels and Barges)
Port Arthur, Orange, and Beaumont, TX	1,443
Port of Galveston, TX	57,766
Lake Charles, LA	63,401
Total	122,610
Source: USACE (2016) ¹	

A materials-offloading facility (MOF) will be established where barges ferrying construction supplies can be moored and safely off-loaded. The primary purpose of the MOF will be to facilitate construction deliveries, but it will remain as a permanent feature of the Facility to allow ongoing deliveries of necessary supplies. The MOF will be a two-berth facility, located on the western bank of the Calcasieu Ship Channel to the north of the proposed LNG marine berths.

The marine berths will be designed to a water depth of 46 feet below NAVD88, with an additional 2 feet of advance maintenance dredging plus 2 feet of over-dredge accommodation (up to -50 ft total depth). The MOF will be designed to a water depth up to 30 feet below NAVD88. Dredging activities for the MOF and the marine berths will take place concurrently and in phases. In the first phase, both areas will be excavated in the dry from land out to near the water's edge leaving a temporary barrier in place. Approximately 20,000 cubic yards (yd³) will be dry excavated from the MOF and approximately 1.5 million yd³ from the marine berths. The material from these dry excavations will be utilized within the Facility site for grading and to construct an earthen berm around the liquefaction facilities.

Once the dry excavation has been completed, cutter head suction dredges will be used to remove the temporary barriers and complete the final dredging of the MOF and marine berths to the designed depths, removing approximately 190,000 yd³ of additional material from the MOF and 6.8 million yd³ of additional material from the marine berths.

This “wet-dredged” material (approximately 7 million yd³) will be transported via pipeline to an off-site area designated for mitigation and beneficial use in accordance with the applicable regulatory authorizations and permits. The marine berths and MOF will require periodic maintenance dredging during operation to remove deposited sediments. It is currently estimated that maintenance dredging will be required approximately every two to three years. All of the activities described above will occur in areas over 20 miles upstream from the Gulf of Mexico, where ESA-listed species under NMFS’s jurisdiction are not expected to occur.

¹ USACE. 2016. Waterborne Commerce of the United States, Calendar Year 2013. Department of the Army, Corps of Engineers, Institute for Water Resources, IWR-WCUS-13-1

Effects determinations for species the Action Agency and NMFS believe may be affected by the proposed action

Species	ESA Listing Status	Action Agency Effect Determination	NMFS Effect Determination
Sea Turtles			
Green (North and South Atlantic distinct population segment [DPS])	T	NLAA	NLAA
Kemp's ridley	E	NLAA	NLAA
Leatherback	E	NLAA	NLAA
Loggerhead (Northwest Atlantic Ocean DPS)	T	NLAA	NLAA
Hawksbill	E	NLAA	NLAA
Marine Mammals			
North Atlantic right whale	E	NLAA	NLAA
Blue whale	E	NLAA	NLAA
Fin whale	E	NLAA	NLAA
Sei whale	E	NLAA	NLAA
Sperm whale	E	NLAA	NLAA
Bryde's whale	P-E	NLAA	NLAA
E = endangered; T = threatened; P-E = proposed for listing as endangered; NLAA = may affect, not likely to adversely affect			

Critical Habitat

Transit of LNGCs would occur in loggerhead sea turtle critical habitat (LOGG-S-2, Gulf of Mexico Sargassum). Figure 3 below shows the spatial area covered by LOGG S-2 overlaid by the primary shipping routes likely to be followed by LNG carriers. The *Sargassum* habitat is defined as developmental and foraging habitat for young loggerheads where surface waters form accumulations of floating material, especially *Sargassum*. The following primary constituent elements (PCEs) are present in LOGG-S-2:

- (i) Convergence zones, surface-water downwelling areas, the margins of major boundary currents (Gulf Stream), and other locations where there are concentrated components of the *Sargassum* community in water temperatures suitable for the optimal growth of *Sargassum* and inhabitation of loggerheads.
- (ii) *Sargassum* in concentrations that support adequate prey abundance and cover.
- (iii) Available prey and other material associated with *Sargassum* habitat including, but not limited to, plants and cyanobacteria and animals native to the *Sargassum* community such as hydroids and copepods.
- (iv) Sufficient water depth and proximity to available currents to ensure offshore transport (out of the surf zone), and foraging and cover requirements by *Sargassum* for post-hatchling loggerheads, i.e., >10 m depth.

We believe the PCEs that may be affected by the proposed action include: (ii) *Sargassum* in concentrations that support adequate prey abundance and cover, and (iii) Available prey and other material associated with *Sargassum* habitat including, but not limited to, plants and cyanobacteria and animals native to the *Sargassum* community such as hydroids and copepods.

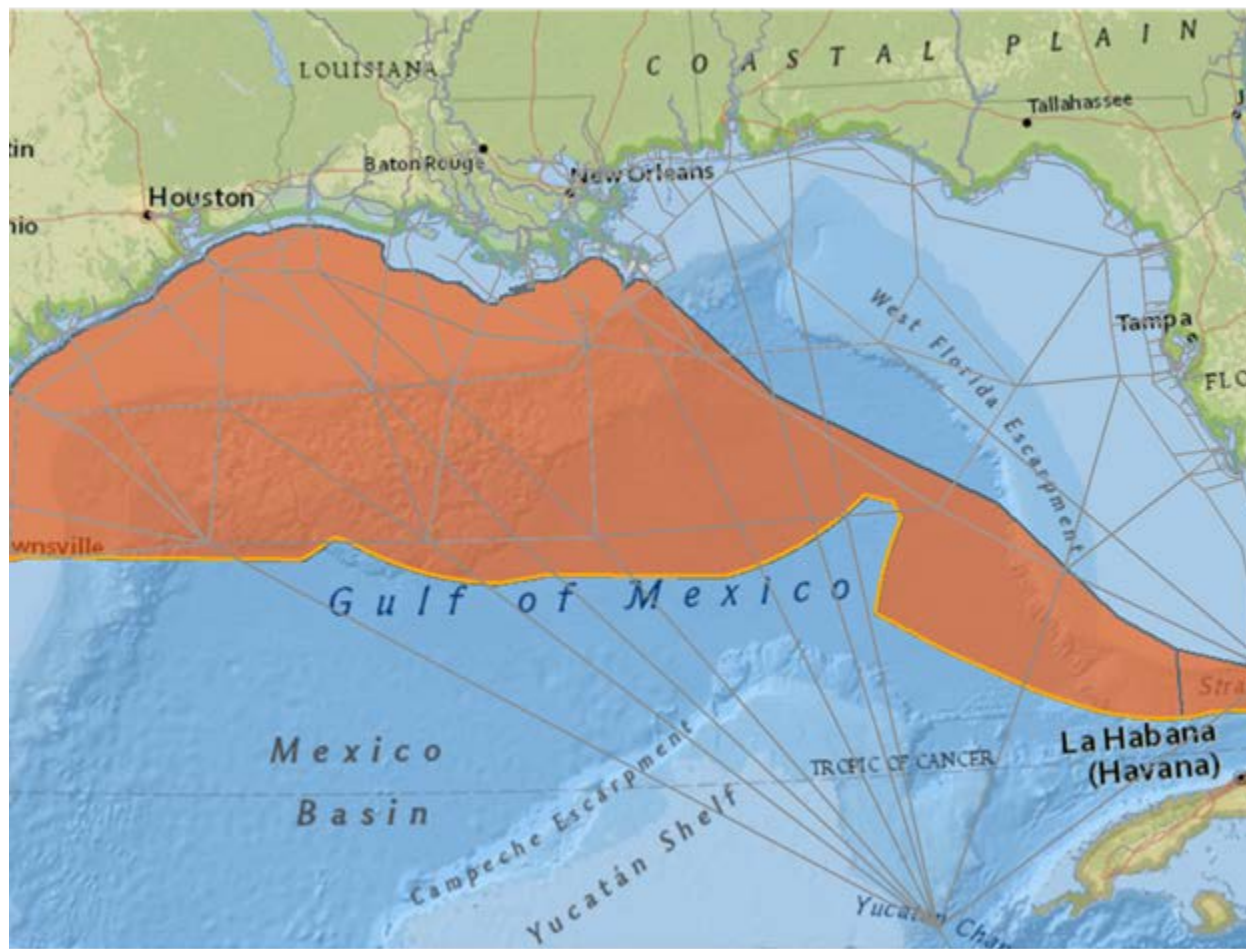


Figure 3. Loggerhead sea turtle critical habitat - LOGG-S-2, Gulf of Mexico *Sargassum* (orange area), overlaid by primary shipping routes likely to be followed by LNG carriers.

Analysis of Potential Routes of Effects to Species

The only activities related to the proposed project that will occur in areas occupied by ESA-listed species under NMFS's jurisdiction is the transit of LNGCs through the lower Calcasieu Ship Channel and the Gulf of Mexico. No suitable nesting habitat for sea turtles is present along the LNGC transit routes, although foraging and migratory habitat for sea turtles and whales is present within these areas. The increased traffic within the Calcasieu Ship Channel and Gulf of Mexico due to LNGC transit to and from the proposed Driftwood LNG terminal could pose an increased risk of accidental vessel strikes for the species listed in Table 1. LNGCs are expected to use well-established shipping lanes in the Gulf of Mexico (Figure 3). In total, LNGCs are expected to make up to 365 trips to the LNG terminal per year. LNGCs operating within the U.S. Exclusive Economic Zone (EEZ) in the Gulf of Mexico are generally slower and generate more noise than typical large vessels, and would therefore be more readily avoided by these mobile species. To further minimize the potential for vessel strikes, Driftwood LNG would provide ship

captains with the NMFS-issued document entitled *Vessel Strike Avoidance Measures and Reporting for Mariners* (revised February 2008) which outlines collision avoidance measures.

The number of vessel transits during project operations is estimated to be approximately 730 vessel transits per year (365 LNGC round trips per year). When this number is compared with the annual large vessel traffic to the local ports in the vicinity of the proposed offshore port (Galveston Bay, Sabine Pass, and Calcasieu Pass; Table 1), the proposed activities would result in a very small increase in vessel traffic (0.6% increase) in the local area.

Sperm whales are by far the most abundant whale occurring in the Gulf of Mexico, and are the only whale with a measurable injury rate due to vessel strikes in this area. Based on data compiled from the IWC Ship Strike Database², and supplemented with data from Carrillo and Ritter (2010)³, NMFS estimates that there is an average of 2 sperm whale strikes per year throughout the entire Gulf of Mexico, with total annual ship transits of approximately 964,316 trips. Given that the proposed operations are expected to result in approximately 730 annual trips, this would result in an average of 0.000757 sperm whale strikes per year, or 1 sperm whale strike every 1,321 years. Given that the entire life of the proposed Facility is estimated at 50 years, the potential for the proposed action to result in a sperm whale strike in the Gulf of Mexico is discountable.

Expanding this analysis to all ESA-listed whales throughout all oceans worldwide, a maximum of 730 trips per year (if all LNGCs travel outside the Gulf) may result from the proposed action. Given that the total number of ships traversing all oceans is much larger than that which occurs within the Gulf, we can similarly conclude that the potential for the proposed action to cause an increase in whale strikes on the open ocean is discountable.

Regarding Bryde's whales in the Gulf of Mexico, there has only been a single documented vessel strike in the Gulf since 2006 (Rosel et al, 2016).⁴ Given that the number of Bryde's whales is much lower than that of sperm whales in the Gulf, and the only vessel trips associated with the proposed project expected to occur within the range of Bryde's whales are those heading to Florida ports (Tampa or Panama City; Figure 3), the likelihood of a project-related vessel strike of a Bryde's whale is even lower than that estimated for sperm whales above, and therefore discountable. Reliable estimates of overall sea turtle strikes throughout the Gulf are not available, but the fact that the proposed action is estimated to result in an increase of just 0.076% ($730/964,316 \times 100$) of overall shipping transits throughout the Gulf, and an even smaller percentage worldwide, indicates that the potential for the proposed action to result in an increase in sea turtle strikes is discountable.

Analysis of Potential Routes of Effect to Critical Habitat

The only potential route of effect to loggerhead sea turtle critical habitat (LOGG-S-2) from the

² <http://iwc.int/index.php?cID=872&cType=document>

³ Carrillo, M., and F. Ritter. 2010. Increasing numbers of ship strikes in the Canary Islands: proposals for immediate action to reduce risk of vessel-whale collisions. *Journal of Cetacean Research and Management*. 11(2): 131–138, 2010

⁴ Rosel, P. E., P. Corkeron, L. Engleby, D. Epperson, K. D. Mullin, M. S. Soldevilla, B. L. Taylor. 2016. Status Review of Bryde's Whales (*Balaenoptera edeni*) in the Gulf of Mexico under the Endangered Species Act. NOAA Technical Memorandum NMFS-SEFSC-692

proposed project would be to PCEs (ii) and (iii), *Sargassum* mats and the prey and other material associated with *Sargassum*. The LNGCs may drive through and disrupt the *Sargassum* mats. However, the vessel tracks resulting from these activities are not anticipated to scatter *Sargassum* mats or harm organisms in the *Sargassum* to the point of affecting the functionality of the loggerhead critical habitat PCEs. The wakes and surface water disruption associated with these vessels may temporarily disturb a *Sargassum* mat (for a few minutes, up to a few hours). However, any potential disturbance would be insignificant, as it would not be expected to result in adverse effects to the distribution, size, or composition of mats or their ability to support loggerheads or their prey resources.

Conclusion

Because all potential project effects to listed species and critical habitat were found to be discountable, insignificant or beneficial, we conclude that the proposed action is not likely to adversely affect listed species or critical habitat under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or if the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. NMFS's findings on the project's potential effects are based on the project description in this response. Any changes to the proposed action may negate the findings of this consultation and may require reinitiation of consultation with NMFS.

We look forward to continued cooperation with you and the FERC to promote the conservation of our threatened and endangered marine species and designated critical habitats. If you have any questions about this consultation, please contact Mike Tucker, Consultation Biologist, at (727) 209-5981, or by email at michael.tucker@noaa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. E. Crabtree', written over a horizontal line.

Roy E. Crabtree, Ph.D.
Regional Administrator

File: 1514-22.N



**DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT**

P.O. BOX 44487
BATON ROUGE, LOUISIANA 70804-4487
(225)342-7591
1-800-267-4019

COASTAL USE PERMIT/CONSISTENCY DETERMINATION

C.U.P. No.: P20170501

C.O.E. No.:

NAME: DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC
c/o PERENNIAL ENVIRONMENTAL SERVICES, LLC
13100 NORTHWEST FREEWAY, SUITE 160
HOUSTON, TX 77040
Attn: Marshall Olson

LOCATION: Acadia, Calcasieu, Cameron, Evangeline, Jefferson Davis Parishes, LA
Lat. 30-5-42.88, Long. 93-20-15.48; Section 24, T11S-R10W; located along the west bank of the Calcasieu River along the Intracoastal Waterway between mile markers 22 and 23, Carlyss, LA.

DESCRIPTION: Proposed Liquefied Natural Gas (LNG) production and export facilities, including five LNG plants, three LNG storage tanks, associated infrastructure and support facilities (Facility), 96 mile pipeline, 3.4 mile lateral pipeline, three marine berthing facilities and a materials offloading facility all to be installed outside the Coastal Zone. Additionally, the project will include 10 Beneficial Use of Dredge Material (BUDM) sites which are inside the Coastal Zone. Approximately 63,253,040 cubic yards of excavation required. Approximately 250,000 cubic yards of concrete required. Approximately 1,652,298 cubic yards of crushed stone or gravel required. Approximately 56,263,040 cubic yards of excavated materials will be used onsite for construction of the facility. Approximately 8,250,000 cubic yards of excavated material will be utilized as fill material inside the Coastal Zone within the Beneficial Use of Dredge Material (BUDM) sites. Approximately 60,000 cubic yards of rock required. Approximately 80,000 cubic yards of sand required. Approximately 2,000,000 cubic yards of hauled in topsoil or dirt required.

In accordance with the rules and regulations of the Louisiana Coastal Resources Program and Louisiana R.S. 49, Sections 214.21 to 214.41, the State and Local Coastal Resources Management Act of 1978, as amended, the permittee agrees to:

1. Carry out, perform, and/or operate the use in accordance with the permit conditions, plans and specifications approved by the Department of Natural Resources.
2. Comply with any permit conditions imposed by the Department of Natural Resources.
3. Adjust, alter or remove any structure or other physical evidence of the permitted use if, in the opinion of the Department of Natural Resources, it proves to be beyond the scope of the use as approved or is abandoned.
4. Provide, if required by the Department of Natural Resources, an acceptable surety bond in an appropriate amount to ensure adjustment, alteration, or removal should the Department of Natural Resources determine it necessary.
5. Hold and save the State of Louisiana, the local government, the department, and their officers and employees harmless from any damage to persons or property which might result from the use, including the work, activity, or structure permitted.
6. Certify that the use has been completed in an acceptable and satisfactory manner and in accordance with the plans and specifications approved by the Department of Natural Resources. The Department of Natural Resources may, when appropriate, require such certification to be given by a registered professional engineer.
7. All terms of the permit shall be subject to all applicable federal and state laws and regulations.
8. This permit, or a copy thereof, shall be available for inspection at the site of work at all times during operations.
9. The applicant will notify the Office of Coastal Management of the date on which initiation of the permitted activity described under the "Coastal Use Description" began. The applicant shall notify the Office of Coastal Management by entering a commencement date through the online system, or by mailing said information to OCM.
10. Unless specified elsewhere in this permit, this permit authorizes the initiation of the coastal use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was May 29, 2018. If the coastal use is not initiated within this two (2) year period, then this permit will expire and the applicant will be required to submit a new application. Initiation of the coastal use, for the purposes of this permit, means the actual physical beginning of the use of activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the coastal use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, the permittee must, in good faith, and with due diligence, reasonably progress toward completion of the project once the coastal use has been initiated.
11. The following special conditions must also be met in order for the use to meet the guidelines of the Coastal Resources Program:

- a. This permit does not convey any property rights, mineral rights, or exclusive privileges; nor does it authorize injury to



property.

- b. The benefits of the proposed beneficial use of dredge material project are anticipated to offset temporal losses and/or impacts to pre-existing marsh habitat within the BUDM sites and the hydraulic dredge pipeline corridor. Post-project assessment of the benefits to offset impacts to pre-existing marsh habitat and the re-establishment of pre-existing fisheries access shall be determined after the third full growing season (March 1 through November 1).

Permittee shall provide pre- and post-construction scaled aerial photographic documentation at a scale of 1:400 or 1 meter pixel resolution that clearly shows all vegetated wetlands occurring within the permitted project area. The pre- and post-construction photos should be at the same scale. The post-construction documentation shall be acquired (photos actually taken) and submitted within 60 days of the end of the third full growing season following completion of the project.

Permittee shall notify OCM of the date of completion of permitted activities within 5 working days of completion.

Should the permitted project not provide the anticipated benefits, OCM may determine that compensatory mitigation is required, permittee shall submit a compensatory mitigation plan for approval within 30 days of notification of the compensatory mitigation requirements by OCM. All necessary approvals shall be obtained for the compensatory mitigation plan and the plan shall be implemented as directed by OCM. Permittee should be aware that compensatory mitigation projects may be required to be maintained for as many as 20 years for marsh mitigation projects and 50 years for forested wetland mitigation projects. A processing fee will be assessed for the determination of compensatory mitigation requirements and evaluation of the proposed compensatory mitigation plan in accordance with LAC Title 43, Part I, Chapter 7, §724.D. This fee shall apply regardless of which compensatory mitigation option is selected and does not include the cost incurred to implement the required compensatory mitigation.

Permittee shall insure dredge placement does not exceed a height of 6" upon existing, adjacent marsh habitat and that settled marsh elevations along banklines shall not exceed a height of 6" above existing, adjacent marsh elevations.

Containment constructed for the beneficial use of dredge material shall be breached/degraded when "post settlement" marsh elevations are reached for those areas which were hydrologically connected prior to project implementation in order to allow the return of pre-project hydrologic tidal connectivity.

Permittee shall closely monitor discharge points of the hydraulic dredge pipeline(s) as to prevent the excessive accumulation of sediments (i.e., settled elevations not to exceed a height of 6" inches above existing, adjacent marsh elevations).

- c. All equipment utilized to perform activities authorized under this permit shall stay within the access routes and work areas designated on the permit plats utilizing the least damaging route and/or open water areas. Where access routes traverse vegetated wetlands for installation of the hydraulic dredge pipeline, marsh buggy/tracked equipment access shall be limited to one pass ingress and one pass egress and shall not fall within the same tracts.
- d. Applicant shall provide to OCM within 30 days following project completion as-built drawings and/or plats that include existing surrounding bottom elevations and dredged material surface elevations AND post-construction photographic documentation clearly showing the entire dredged material placement area.
- e. The following additional comments have been submitted by The Louisiana Department of Wildlife and Fisheries (LDWF):

Our database indicates the presence of bird nesting colonies within one mile of this proposed project. Please be aware that entry into or disturbance of active breeding colonies is prohibited by LDWF. In addition, LDWF prohibits work within a certain radius of an active nesting colony.

Nesting colonies can move from year to year and no current information is available on the status of these colonies. If work for the proposed project will commence during the nesting season, conduct a field visit to the worksite to look for



evidence of nesting colonies. This field visit should take place no more than two weeks before the project begins. If no nesting colonies are found within 1000 feet (2000 feet for Brown Pelicans) of the proposed project, no further consultation with LDWF will be necessary. If active nesting colonies are found within the previously stated distances of the proposed project, further consultation with LDWF will be required. In addition, colonies should be surveyed by a qualified biologist to document species present and the extent of colonies. Provide LDWF with a survey report which is to include the following information:

1. qualifications of survey personnel;
2. survey methodology including dates, site characteristics, and size of survey area;
3. species of birds present, activity, estimates of number of nests present, and general vegetation type including digital photographs representing the site; and
4. topographic maps and ArcView shapefiles projected in UTM NAD83 Zone 15 to illustrate the location and extent of the colony.

Please mail survey reports on CD to:
Louisiana Natural Heritage Program
La. Dept. of Wildlife & Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

To minimize disturbance to colonial nesting birds, the following restrictions on activity should be observed:

- For colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, Roseate Spoonbills, Anhingas, or cormorants), all project activity occurring within 1000 feet of an active nesting colony should be restricted to the non-nesting period (i.e., September 1 through February 15).
- For colonies containing nesting gulls, terns, or Black Skimmers, all project activity occurring within 650 feet (2000 feet for Brown Pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

The Louisiana Natural Heritage Program (LNHP) reports summarize the existing information known at the time of the request regarding the location in question. LNHP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time LNHP tracked species are encountered within the project area, please contact our biologist at 225-765-2643.

- f. Pipelines authorized by this Coastal Use Permit shall be buried (or jetted or bored) and maintained with a minimum cover of 4' below the mudline of any open water areas or waterbody crossings. Note that maintenance activities necessary to maintain the required 4' of cover over the pipeline may require a new Coastal Use Permit.
- g. All fill material shall be clean and free of contaminants and shall not contain hazardous materials such as asbestos or asbestos residue, shingles, tires, oil/grease residue, exposed rebar, protruding objects, etc.
- h. All fill/spoil material to be hauled off-site shall be disposed of at a State approved facility.
- i. All structures built under the authorization and conditions of this permit shall be removed from the site within 120 days of abandonment of the facilities for the herein permitted use, or when these structures fall into a state of disrepair such that they can no longer function as intended. This condition does not preclude the necessity for revising the current permit or obtaining a separate Coastal Use Permit, should one be required, for such removal activities.



- j. All logs, stumps and other debris encountered during dredging activities shall be removed from the site during or immediately after the activity and disposed of in accordance with all applicable laws and regulations.
- k. Structures must be marked/lighted in accordance with U. S. Coast Guard regulations.
- l. No hydrocarbons, substances containing hydrocarbons, drilling mud, drilling cuttings, and/or toxic substances shall be allowed to enter adjacent waterways and wetlands.
- m. Applicant shall implement adequate erosion/sediment control measures to insure that no sediments or other activity related debris is allowed to enter any adjacent wetlands or waters. Accepted measures include the proper use of silt fences, straw bales, seeding or sodding of exposed soils or other Environmental Protection Agency construction site storm water runoff control best management practices. These measures shall be installed prior to the commencement of construction activities and maintained until the project is complete.
- n. That permittee shall insure that all sanitary sewage and/or related domestic wastes generated during the subject project activity and at the site, thereafter, as may become necessary shall receive the equivalent of secondary treatment (30 mg/l BOD5) with disinfection prior to discharge into any of the streams or adjacent waters of the area or, in the case of total containment, shall be disposed of in approved sewerage and sewage treatment facilities, as is required by the State Sanitary Code. Such opinion as may be served by those comments offered herein shall not be construed to suffice as any more formal approval(s) which may be required of possible sanitary details (i.e. provisions) scheduled to be associated with the subject activity. Such shall generally require that appropriate plans and specifications be submitted to the Department of Health and Hospitals for purpose of review and approval prior to any utilization of such provisions.
- o. Permittee is subject to all applicable state laws related to damages which are demonstrated to have been caused by this action.
- p. Permittee shall allow representatives of the Office of Coastal Management or authorized agents to make periodic, unannounced inspections to assure the activity being performed is in accordance with the conditions of this permit.
- q. Permittee shall comply with all applicable state laws regarding the need to contact the Louisiana One Call (LOC) system (1-800-272-3020) to locate any buried cables and pipelines.
- r. This permit authorizes the initiation of the Coastal Use described under "Coastal Use Description" for two (2) years from the date of the signature of the Secretary or his designee on the original permit which was May 29, 2018. Initiation of the Coastal Use, for purposes of this permit, means the actual physical beginning of the use or activity for which the permit is required. Initiation does not include preparatory activities, such as movement of equipment onto the Coastal Use site, expenditure of funds, contracting out of work, or performing activities which by themselves do not require a permit. In addition, Permittee must, in good faith and with due diligence, reasonably progress toward completion of the project once the Coastal Use has been initiated. If the Coastal Use is not initiated within this two (2) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (Title 43:I.723.D.). Please note that a request for permit extension MUST be made no sooner than one hundred eighty (180) days and no later than sixty (60) days prior to the expiration of the permit.

The expiration date of this permit is five (5) years from the date of the signature of the Secretary or his designee on the original permit which was May 29, 2018. If the Coastal Use is not completed within this five (5) year period, an extension may be granted pursuant to the requirements contained in the Rules and Procedures for Coastal Use Permits (LAC 43:I.723(D)).

Upon expiration of this permit, a new Coastal Use Permit will be required for completion of any unfinished or uncommenced work items and for any maintenance activities involving dredging or fill that may become necessary.



Other types of maintenance activities may also require a new Coastal Use Permit.

- s. This determination does not eliminate the need to obtain a permit from the United States Army, Corps of Engineers or any other Federal, state or local approval that may be required by law. The drawings submitted with your referenced application are attached hereto and made a part of the record.

***** End of Conditions *****

By accepting this permit the applicant agrees to its terms and conditions.

I affix my signature and issue this permit this 29th day of May, 2018.

THE DEPARTMENT OF NATURAL RESOURCES

Keith Lovell, For Karl L. Morgan, Administrator
Office of Coastal Management

This agreement becomes binding when signed by Administrator of
the Office of Coastal Management Permits/Mitigation Division, Department of Natural Resources.

Attachments



Final Plats:

- 1) P20170501 Final Plats 04/20/2018
- 2) P20170501 Final Plats 04/20/2018

cc: Martin Mayer, COE w/attachments
Dave Butler, LDWF w/attachments
Les Rosso, State Land w/attachments
Channing Hayden, Jr., PortLC w/attachments
Lynn Hohensee, WCalCP w/attachments
Clair Hebert, Other w/attachments
Jessica Diez, OCM w/attachments
Quintin Waguespack, OCM/FI w/attachments
Calcasieu Parish w/attachments
Cameron Parish w/attachments

DRIFTWOOD LNG LLC AND DRIFTWOOD PIPELINE LLC w/attachments

JOHN BEL EDWARDS
GOVERNOR



CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

Certified Mail No. 7018 0360 0001 4874 6188

Agency Interest No. 201334
Activity No.: PER20170001

Ms. Cathy Rourke
Driftwood LNG LLC
1201 Louisiana Street, Suite 3100
Houston, TX 77002

RE: Part 70 Operating Permit, Driftwood LNG Facility, Driftwood LNG LLC,
Carlyss, Calcasieu Parish, Louisiana

Dear Ms. Rourke:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 operating permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the 10th of July, 2023, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Please be advised that pursuant to provisions of the Environmental Quality Act and the Administrative Procedure Act, the Department may initiate review of a permit during its term. However, before it takes any action to modify, suspend or revoke a permit, the Department shall, in accordance with applicable statutes and regulations, notify the permittee by mail of the facts or operational conduct that warrant the intended action and provide the permittee with the opportunity to demonstrate compliance with all lawful requirements for the retention of the effective permit.

Done this 10 day of July, 2018.

Permit No.: 0520-00504-V0

Sincerely,

A handwritten signature in black ink, appearing to read "Elliott B. Vega".

Elliott B. Vega
Assistant Secretary

EBV/DCN
cc: EPA Region 6

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRIFTWOOD LNG FACILITY
AGENCY INTEREST NO.: 201334
DRIFTWOOD LNG LLC
CARLYSS, CALCASIEU PARISH, LOUISIANA

I. Background

Driftwood LNG LLC proposes to construct and operate the Driftwood LNG Facility near Carlyss, Calcasieu Parish.

II. Origin

A permit application dated March 27, 2017 as well as additional information dated July 25, September 29, and October 17, 2017 was submitted requesting a Part 70 operating permit.

III. Description

The Driftwood LNG Facility will consist of five (5) liquefaction units with a total nominal design capacity of 26 million metric tons of liquefied natural gas (LNG) per year. Emissions are from turbines, thermal oxidizers, flares, generator engines, pump engines, heaters, storage tanks, loadings, and fugitives. Emissions from the station in tons per year are as follows:

Pollutant	Emissions
PM ₁₀ /PM _{2.5}	356.18
SO ₂	73.61
NO _x	1703.93
CO	6039.11
VOC	555.57
CO ₂ e	9,513,442
LAC 33:III.Chapter 51 Regulated Toxic Air Pollutants (TAP)	
1,3-Butadiene	0.020
1,4-Dichlorobenzene	0.03
Acetaldehyde	1.81
Acrolein	0.300
Ammonia	474.40
Benzene	4.52
Ethyl Benzene	1.61
Formaldehyde	33.78
n-Hexane	13.92

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

DRIFTWOOD LNG FACILITY
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Pollutant	Emissions
Hydrogen Sulfide	0.32
Naphthalene	0.10
Polynuclear Aromatic Hydrocarbons	0.105
Propylene Oxide	1.40
Toluene	11.50
Xylenes	3.36

IV. Type of Review

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NESHAP, and NSPS. The facility is major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

PM₁₀/PM_{2.5}, SO₂, NO_x, CO, VOC, and greenhouse gas (GHG) emissions from the proposed facility will be more than the PSD major source thresholds or PSD significance levels. These emissions were reviewed under the PSD regulations and documented in Permit PSD-LA-824. Emissions of PM₁₀/PM_{2.5}, SO₂, NO_x, CO, VOC, and GHG will be controlled by Best Available Control Technology (BACT). Emissions from the proposed facility are not expected to cause or significantly contribute to any exceedances of the national ambient air quality standards (NAAQS) or PSD increments.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

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VI. Public Notice

In accordance with LAC 33:III.531.A.3, a notice requesting public comment and announcing a public hearing on the proposed permit was published on the department's website on February 1, 2018. On January 31, 2018, copies of the public notice were mailed to the individuals who have requested to be placed on the mailing list maintained by the Office of Environmental Services (OES). The proposed permit was submitted to EPA on January 31, 2018. A public hearing was held on March 8, 2018. Comments received during the comment period and at the public hearing were considered prior to the permit decision.

VII. Effects on Ambient Air

Emissions from the proposed facility will not cause or significantly contribute to any National Ambient Air Standards (NAAQS) exceedances.

Dispersion Model Used: AERMOD ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Period	Project Impact	Significant Impact Level	Significant Monitoring
PM ₁₀	24-hour	2.08	5	4
	Annual	0.30	1	-
PM _{2.5}	24-hour	1.77	1.2	10
	Annual	0.24	0.3	-
SO ₂	1-hour	11.59	7.8	-
	3-hour	10.90	25	-
	24-hour	3.71	5	13
	Annual	0.15	1	-
NO ₂	1-hour	26.7	7.5	-
	Annual	1.21	1	14
CO	1-hour	156.1	2,000	-
	8-hour	400.6	500	575

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Refined Modeling

Pollutant	Averaging Period	Total Impact	Project Contribution	NAAQS
PM _{2.5}	24-hour	66.5	0.02915	35
SO ₂	1-hour	513.5	0.0123	196.2
NO ₂	1-hour	4786.68	0.0008	188.6
	Annual	25.1	-	100

Increment Allowances

Pollutant	Averaging Period		Increment Consumption	Allowable Increment
PM _{2.5}	24-hour		8.13	9
NO ₂	Annual		13.8	25

AAS Modeling

Pollutant	Averaging Period	Project Impact	AAS	7.5 % of AAS
Ammonia	8-hour	5.56	640	48
Benzene	Annual	0.17	12	0.90
n-Hexane	8-hour	21.56	4,190	314.3

VIII. General Condition XVII Activities

Description	Schedule	Emissions (tons/year)	
		VOC	H ₂ S
(none)			

IX. Insignificant Activities (LAC 33:III.501.B.5)

ID No.:	Description	Capacity (gallons)	Citation
	Diesel Tanks	< 10,000	A.3
	Lube Oil Tank	< 10,000	A.3

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.								LAC 33:III.Chapter								
		509	2103	2107	2111	2113	2121	2122		5*	9	11	13	15	29	51*	56	59
EQT0001 – EQT0004	(P01TU01 – P01TU04) Plant 1 - Turbine 1 – Turbine 4	1										3	1	3				
EQT0005 – EQT0008	(P02TU01 – P02TU04) Plant 2 - Turbine 1 – Turbine 4	1										3	1	3				
EQT0009 – EQT0012	(P03TU01 – P03TU04) Plant 3 - Turbine 1 – Turbine 4	1										3	1	3				
EQT0013 – EQT0016	(P04TU01 – P04TU04) Plant 4 - Turbine 1 – Turbine 4	1										3	1	3				
EQT0017 – EQT0020	(P05TU01 – P05TU04) Plant 5 - Turbine 1 – Turbine 4	1										3	1	3				
EQT0021 – EQT0025	(P01TO01 – P05TO01) Plant 1 – Plant 5 Acid Gas Thermal Oxidizer 1	1										1	1	1				
EQT0026	CVTO - Condensate Vapor Thermal Oxidizer	1										1	1	3				
EQT0027	GFLR1D - Plants 1 and 2 Dry Gas Ground Flare	1										1	1	3				
EQT0028	GFLR2D - Plants 3, 4, and 5 Dry Gas Ground Flare	1										1	1	3				
EQT0029	GFLR1W - Plants 1 and 2 Wet Gas Ground Flare	1										1	1	3				
EQT0030	GFLR1W - Plants 3, 4, and 5 Wet Gas Ground Flare	1										1	1	3				
EQT0031, EQT0032	(DFLARE01, DFLARE02) Dry Flare 01 and Dry Flare 02	1										1	1	3				
EQT0033, EQT0034	(WFLARE01, WFLARE02) Wet Flare 01 and Wet Flare 02	1										1	1	3				
EQT0035	MFLARE01 - Marine Flare	1										1	1	3				
EQT0036	MFLARE01-MSS - Marine Flare - SU/SD and Maintenance	1										1	1	3				
EQT0038 – EQT0042	(P01H01 – P05H01) Plant 1 – Plant 5 Hot Oil Heater 1	1										3	1	3				
EQT0045 – EQT0047	(SWP1P01 – SWP1P03) Storm Water Pond 1 Pump 01 – 03	1										1	1	3		3		
EQT0048 – EQT0050	(SWP2P01 – SWP2P03) Storm Water Pond 2 Pump 01 – 03	1										1	1	3		3		
EQT0052, EQT0053	(LNGBP1 - LNGBP2) - LNG Basin Pump 1 and 2	1										1	1	3		3		
EQT0054, EQT0055	(FWP01 – FWP02) Firewater Pump 01 and Pump 02	1										1	1	3		3		
EQT0056 – EQT0060	(ESSGEN01 – ESSGEN05) Essential Generator 01 - 05	1										1	1	3		3		
EQT0061	MAGEN - Main Substation Generator	1										1	1	3		3		

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**DRIFTWOOD LNG LLC
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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	LAC 33:III.								LAC 33:III.Chapter									
		509	2103	2107	2111	2113	2121	2122		5 ^A	9	11	13	15	29	51 [*]	56	59	
EQT0062	CRGEN - Control Room Generator	1										1	1	3		3			
EQT0063	LOGEN - Loading Substation Generator	1										1	1	3		3			
EQT0065 – EQT0069	(#1 - #5) Amine Surge Tank 1 - 5	1	2																
EQT0071	T-1203 - Scavenger Storage Tank	1	2																
EQT0072	T-2901 - Process Wastewater Tank	1	2																
EQT0074	T-1204 - Spent Scavenger Tank	1	2																
EQT0075	T-2909 - Waste Oil/Amine Tank	1	2																
EQT0076	T-2301 - Condensate Storage Tank	1	1																
EQT0080	TL-2301 - Condensate Truck Loading	1		2															
EQT0081	T-2903 – Stormwater Pond 2 Diesel Tank	1	2																
FUG0001	FUG01 - Facility Fugitive Emissions	1			1		3												
UNF0001	AI201334 – Driftwood LNG Facility	1				1				1	1	1	1	1		1	1	3	

KEY TO MATRIX

* The regulations indicated above are State Only regulations.

^A All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

1 - The regulations have applicable requirements which apply to this particular emission source.

- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60						40CFR 61			40 CFR 63						40 CFR			
		A	Dc	Kb	4I	4K	40a	A	F	M	A	Y	4E	4Y	4Z	5D	64	68	82	98
EQT0001 – EQT0004	(P01TU01 – P01TU04) Plant 1 - Turbine 1 – Turbine 4					1								3			3			
EQT0005 – EQT0008	(P02TU01 – P02TU04) Plant 2 - Turbine 1 – Turbine 4					1								3			3			
EQT0009 – EQT0012	(P03TU01 – P03TU04) Plant 3 - Turbine 1 – Turbine 4					1								3			3			
EQT0013 – EQT0016	(P04TU01 – P04TU04) Plant 4 - Turbine 1 – Turbine 4					1								3			3			
EQT0017 – EQT0020	(P05TU01 – P05TU04) Plant 5 - Turbine 1 – Turbine 4					1								3			3			
EQT0021 – EQT0025	(P01TO01 – P05TO01) Plant 1 – Plant 5 Acid Gas Thermal Oxidizer 1																3			
EQT0026	CVTO - Condensate Vapor Thermal Oxidizer	1															1			
EQT0027	GFLR1D - Plants 1 and 2 Dry Gas Ground Flare	1															1			
EQT0028	GFLR2D - Plants 3, 4, and 5 Dry Gas Ground Flare	1															1			
EQT0029	GFLR1W - Plants 1 and 2 Wet Gas Ground Flare	1															1			
EQT0030	GFLR1W - Plants 3, 4, and 5 Wet Gas Ground Flare	1															1			
EQT0031, EQT0032	(DFLARE01, DFLARE02) Dry Flare 01 and Dry Flare 02																3			
EQT0033, EQT0034	(WFLARE01, WFLARE02) Wet Flare 01 and Wet Flare 02																3			
EQT0035	MFLARE01 - Marine Flare	1										3					3			
EQT0036	MFLARE01-MSS - Marine Flare - SU/SD and Maintenance	1															3			
EQT0038 – EQT0042	(P01H01 – P05H01) Plant 1 – Plant 5 Hot Oil Heater 1															1				
EQT0045 – EQT0047	(SWP1P01 – SWP1P03) Storm Water Pond 1 Pump 01 – 03				1										1					
EQT0048 – EQT0050	(SWP2P01 – SWP2P03) Storm Water Pond 2 Pump 01 – 03				1										1					
EQT0052, EQT0053	(LNGBP1 - LNGBP2) - LNG Basin Pump 1 and 2				1										1					
EQT0054, EQT0055	(FWP01 – FWP02) Firewater Pump 01 and Pump 02				1										1					
EQT0056 – EQT0060	(ESSGEN01 – ESSGEN05) Essential Generator 01 - 05				1										1					

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X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60						40CFR 61			40 CFR 63						40 CFR			
		A	Dc	Kb	4l	4K	40a	A	F	M	A	Y	4E	4Y	4Z	5D	64	68	82	98
EQT0061	MAGEN - Main Substation Generator				1										1					
EQT0062	CRGEN - Control Room Generator				1										1					
EQT0063	LOGEN - Loading Substation Generator				1										1					
EQT0065 – EQT0069	(#1 - #5) Amine Surge Tank 1 - 5			2			2													
EQT0071	T-1203 - Scavenger Storage Tank			2			2													
EQT0072	T-2901 - Process Wastewater Tank			2			2													
EQT0074	T-1204 - Spent Scavenger Tank			2			2													
EQT0075	T-2909 - Waste Oil/Amine Tank			2			2													
EQT0076	T-2301 - Condensate Storage Tank			1			3						1							
EQT0080	TL-2301 - Condensate Truck Loading												1							
EQT0081	T-2903 – Stormwater Pond 2 Diesel Tank			2			2													
FUG0001	FUG01 - Facility Fugitive Emissions												1							
UNF0001	AI201334 – Driftwood LNG Facility	1									1							3	1	

KEY TO MATRIX

- 1 - The regulations have applicable requirements which apply to this particular emission source.
 - The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.
- Blank – The regulations clearly do not apply to this type of emission source.

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XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
Turbines EQT0001 – EQT0020	LAC 33:III.Chapter 11	Does not apply	LAC 33:III.1107.B.1	Fueled by natural gas or fuel gas
	LAC 33:III.1503	Does not apply	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
	40 CFR 63 Subpart YYYY	Does not apply	40 CFR 63.6145	Gas fired turbines
	40 CFR 64 CAM	Exempt	40 CFR 64.2(b)(1)(i)	Subject to 40 CFR 60 Subpart KKKK
Thermal Oxidizers	40 CFR 64 CAM	Exempt	40 CFR 64.2(b)(1)(vi)	Continuous monitor firebox temperature
Elevated Flare	LAC 33:III.1503	Does not apply	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
Marine Flares	40 CFR 64 CAM	Exempt	40 CFR 64.2(b)(1)	Pre control VOC < 100 tons/year
Ground Flares	LAC 33:III.1503	Does not apply	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
Hot Oil Heaters	LAC 33:III.1503	Does not apply	LAC 33:III.1503.C	SO ₂ emissions < 250 tons/year
IC Engines <= 500 bhp	LAC 33:III.Chapter 15	Does not apply	LAC 33:III.1502.A.3	SO ₂ emissions < 5 tons/year
	LAC 33:III.Chapter 51	Does not apply	LAC 33:III.5105.B.3.a	TAP from virgin fossil fuel combustion
IC Engines > 500 bhp EQT0049, EQT0052	LAC 33:III.Chapter 15	Does not apply	LAC 33:III.1502.A.3	SO ₂ emissions < 5 tons/year
	LAC 33:III.Chapter 51	Does not apply	LAC 33:III.5105.B.3.a	TAP from virgin fossil fuel combustion
EQT0054 - EQT0063	40 CFR 63 Subpart ZZZZ	Does not apply	40 CFR 63.6590(b)(1)	Engines > 500 bhp at a major source need only submit notification per 63.6645(f)

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XI. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Status	Citation	Explanation
Condensate Tanks	40 CFR 60 Subpart OOOOa	Does not apply	40 CFR 60.5365a(e)	Subject to 40 CFR 60 Subpart Kb
Amine Surge Tanks	LAC 33:III.2103	Does not Apply	LAC 33:III.2103.A	Vapor Pressure < 1.5 psia
Scavenger Tanks	40 CFR 60 Subpart Kb	Does not apply	40 CFR 60.110b	Tank Volume < 20,000 gallons or Vapor Pressure < 0.51 psia
Process WW Tank				
Waste Oil/Amine Tank				
Diesel Tanks	40 CFR 60 Subpart OOOOa	Does not apply	40 CFR 60.5365a(e)	Potential to emit VOC < 6 tons/year
Lube Oil Tank				
Diesel Tank				
Condensate Loading	LAC 33:III.2107	Exempt	LAC 33:III.2107.F	Condensate loading
Fugitives	LAC 33:III.2121 Fugitives	Does not apply	LAC 33:III.2121	Not an affected facility
Facility Wide	LAC 33:III.Chapter 59 and 40 CFR 68	Does not apply	LAC 33:III.5901	Subject to 40 CFR 193
The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit				

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Driftwood LNG Facility						
EQT 0001	P01TU01 - Plant 1 - Turbine 1		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0002	P01TU02 - Plant 1 - Turbine 2		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0003	P01TU03 - Plant 1 - Turbine 3		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0004	P01TU04 - Plant 1 - Turbine 4		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0005	P02TU01 - Plant 2 - Turbine 1		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0006	P02TU02 - Plant 2 - Turbine 2		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0007	P02TU03 - Plant 2 - Turbine 3		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0008	P02TU04 - Plant 2 - Turbine 4		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0009	P03TU01 - Plant 3 - Turbine 1		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0010	P03TU02 - Plant 3 - Turbine 2		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0011	P03TU03 - Plant 3 - Turbine 3		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0012	P03TU04 - Plant 3 - Turbine 4		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0013	P04TU01 - Plant 4 - Turbine 1		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0014	P04TU02 - Plant 4 - Turbine 2		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0015	P04TU03 - Plant 4 - Turbine 3		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0016	P04TU04 - Plant 4 - Turbine 4		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0017	P05TU01 - Plant 5 - Turbine 1		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0018	P05TU02 - Plant 5 - Turbine 2		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0019	P05TU03 - Plant 5 - Turbine 3		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0020	P05TU04 - Plant 5 - Turbine 4		540.2 MM BTU/hr	540.2 MM BTU/hr		8760 hr/yr
EQT 0021	P01TO01 - Plant 1 - Acid Gas Thermal Oxidizer 1		77.81 MM BTU/hr	77.81 MM BTU/hr		8760 hr/yr
EQT 0022	P02TO01 - Plant 2 - Acid Gas Thermal Oxidizer 1		77.81 MM BTU/hr	77.81 MM BTU/hr		8760 hr/yr
EQT 0023	P03TO01 - Plant 3 - Acid Gas Thermal Oxidizer 1		77.81 MM BTU/hr	77.81 MM BTU/hr		8760 hr/yr
EQT 0024	P04TO01 - Plant 4 - Acid Gas Thermal Oxidizer 1		77.81 MM BTU/hr	77.81 MM BTU/hr		8760 hr/yr
EQT 0025	P05TO01 - Plant 5 - Acid Gas Thermal Oxidizer 1		77.81 MM BTU/hr	77.81 MM BTU/hr		8760 hr/yr
EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer		98.05 MM BTU/hr	98.05 MM BTU/hr		8760 hr/yr
EQT 0027	GFLR1D - Plants 1 and 2 Dry Gas Ground Flare		10279.75 MM BTU/hr	1465.69 MM BTU/hr		8760 hr/yr
EQT 0028	GFLR2D - Plants 3, 4, and 5 Dry Gas Ground Flare		10279.75 MM BTU/hr	1465.69 MM BTU/hr		8760 hr/yr
EQT 0029	GFLR1W - Plants 1 and 2 Wet Gas Ground Flare		9165.26 MM BTU/hr	1375.63 MM BTU/hr		8760 hr/yr
EQT 0030	GFLR2W - Plants 3, 4, and 5 Wet Gas Ground Flare		9165.26 MM BTU/hr	1375.63 MM BTU/hr		8760 hr/yr
EQT 0031	DFLARE01 - Dry Flare 01		3.23 MM BTU/hr	3.23 MM BTU/hr		8760 hr/yr
EQT 0032	DFLARE02 - Dry Flare 02		3.23 MM BTU/hr	3.23 MM BTU/hr		8760 hr/yr
EQT 0033	WFLARE01 - Wet Flare 01		4.05 MM BTU/hr	4.05 MM BTU/hr		8760 hr/yr
EQT 0034	WFLARE02 - Wet Flare 02		4.05 MM BTU/hr	4.05 MM BTU/hr		8760 hr/yr
EQT 0035	MFLARE01 - Marine Flare		878.88 MM BTU/hr	8.6 MM BTU/hr		8760 hr/yr
EQT 0036	MFLARE01-MSS - Marine Flare - SU/SD and Maintenance		3107.4 MM BTU/hr	17.74 MM BTU/hr		50 hr/yr
EQT 0038	P01H01 - Plant 1 - Hot Oil Heater 1		16.13 MM BTU/hr	16.13 MM BTU/hr		336 hr/yr
EQT 0039	P02H01 - Plant 2 - Hot Oil Heater 1		16.13 MM BTU/hr	16.13 MM BTU/hr		336 hr/yr
EQT 0040	P03H01 - Plant 3 - Hot Oil Heater 1		16.13 MM BTU/hr	16.13 MM BTU/hr		336 hr/yr

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
Driftwood LNG Facility						
EQT 0041	P04H01 - Plant 4 - Hot Oil Heater 1		16.13 MM BTU/hr	16.13 MM BTU/hr		336 hr/yr
EQT 0042	P05H01 - Plant 5 - Hot Oil Heater 1		16.13 MM BTU/hr	16.13 MM BTU/hr		336 hr/yr
EQT 0045	SWP1P01 - Storm Water Pond 1 Pump 01			500 horsepower		350 hr/yr
EQT 0046	SWP1P02 - Storm Water Pond 1 Pump 02			250 horsepower		350 hr/yr
EQT 0047	SWP1P03 - Storm Water Pond 1 Pump 03			250 horsepower		350 hr/yr
EQT 0048	SWP2P01 - Storm Water Pond 2 Pump 01			1000 horsepower		350 hr/yr
EQT 0049	SWP2P02 - Storm Water Pond 2 Pump 02			1000 horsepower		350 hr/yr
EQT 0050	SWP2P03 - Storm Water Pond 2 Pump 03			350 horsepower		350 hr/yr
EQT 0052	LNGBP1 - LNG Basin Pump 1			1000 horsepower		350 hr/yr
EQT 0053	LNGBP2 - LNG Basin Pump 2			200 horsepower		350 hr/yr
EQT 0054	FWP01 - Firewater Pump 01			550 horsepower		100 hr/yr
EQT 0055	FWP02 - Firewater Pump 02			550 horsepower		100 hr/yr
EQT 0056	ESSGEN01 - Essential Generator 01			1491 horsepower		100 hr/yr
EQT 0057	ESSGEN02 - Essential Generator 02			1491 horsepower		100 hr/yr
EQT 0058	ESSGEN03 - Essential Generator 03			1491 horsepower		100 hr/yr
EQT 0059	ESSGEN04 - Essential Generator 04			1491 horsepower		100 hr/yr
EQT 0060	ESSGEN05 - Essential Generator 05			1491 horsepower		100 hr/yr
EQT 0061	MAGEN - Main Substation Generator			755 horsepower		100 hr/yr
EQT 0062	CRGEN - Control Room Generator			1491 horsepower		100 hr/yr
EQT 0063	LOGEN - Loading Substation Generator			1491 horsepower		100 hr/yr
EQT 0065	#1 - Amine Surge Tank 1	172202 gallons		344404 gallons/yr		8760 hr/yr
EQT 0066	#2 - Amine Surge Tank 2	172202 gallons		344404 gallons/yr		8760 hr/yr
EQT 0067	#3 - Amine Surge Tank 3	172202 gallons		344404 gallons/yr		8760 hr/yr
EQT 0068	#4 - Amine Surge Tank 4	172202 gallons		344404 gallons/yr		8760 hr/yr
EQT 0069	#5 - Amine Surge Tank 5	172202 gallons		344404 gallons/yr		8760 hr/yr
EQT 0071	T-1203 - Scavenger Storage Tank	44442 gallons		533304 gallons/yr		8760 hr/yr
EQT 0072	T-2901 - Process Wastewater Tank	39998 gallons		14599270 gallons/yr		8760 hr/yr
EQT 0074	T-1204 - Spent Scavenger Tank	44681 gallons				8760 hr/yr
EQT 0075	T-2909 - Waste Oil/Amine Tank	10503 gallons				8760 hr/yr
EQT 0076	T-2301 - Condensate Storage Tank	1.23 million gallons				8760 hr/yr
EQT 0080	TL-2301 - Condensate Truck Loading			20 MM gallons/yr		8760 hr/yr
EQT 0081	T-2903 - Stormwater Pond 2 Diesel Tank					8760 hr/yr
FUG 0001	FUG01 - Facility Fugitive Emissions					8760 hr/yr

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Driftwood LNG Facility							

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Driftwood LNG Facility							
EQT 0001	P01TU01 - Plant 1 - Turbine 1	100	490277	10.2		152	705
EQT 0002	P01TU02 - Plant 1 - Turbine 2	100	490277	10.2		152	705
EQT 0003	P01TU03 - Plant 1 - Turbine 3	100	490277	10.2		152	705
EQT 0004	P01TU04 - Plant 1 - Turbine 4	100	490277	10.2		152	705
EQT 0005	P02TU01 - Plant 2 - Turbine 1	100	490277	10.2		152	705
EQT 0006	P02TU02 - Plant 2 - Turbine 2	100	490277	10.2		152	705
EQT 0007	P02TU03 - Plant 2 - Turbine 3	100	490277	10.2		152	705
EQT 0008	P02TU04 - Plant 2 - Turbine 4	100	490277	10.2		152	705
EQT 0009	P03TU01 - Plant 3 - Turbine 1	100	490277	10.2		152	705
EQT 0010	P03TU02 - Plant 3 - Turbine 2	100	490277	10.2		152	705
EQT 0011	P03TU03 - Plant 3 - Turbine 3	100	490277	10.2		152	705
EQT 0012	P03TU04 - Plant 3 - Turbine 4	100	490277	10.2		152	705
EQT 0013	P04TU01 - Plant 4 - Turbine 1	100	490277	10.2		152	705
EQT 0014	P04TU02 - Plant 4 - Turbine 2	100	490277	10.2		152	705
EQT 0015	P04TU03 - Plant 4 - Turbine 3	100	490277	10.2		152	705
EQT 0016	P04TU04 - Plant 4 - Turbine 4	100	490277	10.2		152	705
EQT 0017	P05TU01 - Plant 5 - Turbine 1	100	490277	10.2		152	705
EQT 0018	P05TU02 - Plant 5 - Turbine 2	100	490277	10.2		152	705
EQT 0019	P05TU03 - Plant 5 - Turbine 3	100	490277	10.2		152	705
EQT 0020	P05TU04 - Plant 5 - Turbine 4	100	490277	10.2		152	705
EQT 0021	P01TO01 - Plant 1 - Acid Gas Thermal Oxidizer 1	50	132536	7.5		75	1500
EQT 0022	P02TO01 - Plant 2 - Acid Gas Thermal Oxidizer 1	50	132536	7.5		75	1500
EQT 0023	P03TO01 - Plant 3 - Acid Gas Thermal Oxidizer 1	50	132536	7.5		75	1500
EQT 0024	P04TO01 - Plant 4 - Acid Gas Thermal Oxidizer 1	50	132536	7.5		75	1500
EQT 0025	P05TO01 - Plant 5 - Acid Gas Thermal Oxidizer 1	50	132536	7.5		75	1500
EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer	52	137837	7.5		75	1800
EQT 0027	GFLR1D - Plants 1 and 2 Dry Gas Ground Flare	65.62		58.32		150	1832
EQT 0028	GFLR2D - Plants 3, 4, and 5 Dry Gas Ground Flare	65.62		58.32		150	1832
EQT 0029	GFLR1W - Plants 1 and 2 Wet Gas Ground Flare	65.62		55.07		150	1832
EQT 0030	GFLR2W - Plants 3, 4, and 5 Wet Gas Ground Flare	65.62		55.07		150	1832
EQT 0031	DFLARE01 - Dry Flare 01	65.62		1.03		350	1832
EQT 0032	DFLARE02 - Dry Flare 02	65.62		1.03		350	1832

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Driftwood LNG Facility							
EQT 0033	WFLARE01 - Wet Flare 01	65.62		1.16		350	1832
EQT 0034	WFLARE02 - Wet Flare 02	65.62		1.16		350	1832
EQT 0035	MFLARE01 - Marine Flare	65.62		17.06		190	1832
EQT 0036	MFLARE01-MSS - Marine Flare - SU/SD and Maintenance	65.62		32.07		190	1832
EQT 0038	P01H01 - Plant 1 - Hot Oil Heater 1	25	13619	3.4		100	560
EQT 0039	P02H01 - Plant 2 - Hot Oil Heater 1	25	13619	3.4		100	560
EQT 0040	P03H01 - Plant 3 - Hot Oil Heater 1	25	13619	3.4		100	560
EQT 0041	P04H01 - Plant 4 - Hot Oil Heater 1	25	13619	3.4		100	560
EQT 0042	P05H01 - Plant 5 - Hot Oil Heater 1	25	13619	3.4		100	560
EQT 0045	SWP1P01 - Storm Water Pond 1 Pump 01	186	8765	1		25	738
EQT 0046	SWP1P02 - Storm Water Pond 1 Pump 02	186	4930	.75		25	738
EQT 0047	SWP1P03 - Storm Water Pond 1 Pump 03	186	4930	.75		25	738
EQT 0048	SWP2P01 - Storm Water Pond 2 Pump 01	186	8765	1		25	738
EQT 0049	SWP2P02 - Storm Water Pond 2 Pump 02	186	8765	1		25	738
EQT 0050	SWP2P03 - Storm Water Pond 2 Pump 03	186	4930	.75		25	738
EQT 0052	LNGBP1 - LNG Basin Pump 1	186	8765	1		25	738
EQT 0053	LNGBP2 - LNG Basin Pump 2	186	4930	.75		25	738
EQT 0054	FWP01 - Firewater Pump 01	186	4295	.7		25	738
EQT 0055	FWP02 - Firewater Pump 02	186	4295	.7		25	738
EQT 0056	ESSGEN01 - Essential Generator 01	148	4690	.82		16	850
EQT 0057	ESSGEN02 - Essential Generator 02	148	4690	.82		16	850
EQT 0058	ESSGEN03 - Essential Generator 03	148	4690	.82		16	850
EQT 0059	ESSGEN04 - Essential Generator 04	148	4690	.82		16	850
EQT 0060	ESSGEN05 - Essential Generator 05	148	4690	.82		16	850
EQT 0061	MAGEN - Main Substation Generator	148	4690	.82		16	850
EQT 0062	CRGEN - Control Room Generator	148	4690	.82		16	850
EQT 0063	LOGEN - Loading Substation Generator	148	4690	.82		16	850
EQT 0065	#1 - Amine Surge Tank 1			31		42	65
EQT 0066	#2 - Amine Surge Tank 2			31		42	65
EQT 0067	#3 - Amine Surge Tank 3			31		42	65
EQT 0068	#4 - Amine Surge Tank 4			31		42	65
EQT 0069	#5 - Amine Surge Tank 5			31		42	65

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
Driftwood LNG Facility							
EQT 0071	T-1203 - Scavenger Storage Tank			20.5		25.5	70
EQT 0072	T-2901 - Process Wastewater Tank			30		30	70

Relationships:

ID	Description	Relationship	ID	Description
EQT 0074	T-1204 - Spent Scavenger Tank	Controlled by	EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer
EQT 0076	T-2301 - Condensate Storage Tank	Controlled by	EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer
EQT 0080	TL-2301 - Condensate Truck Loading	Controlled by	EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer

Subject Item Groups:

ID	Group Type	Group Description
CRG 0001	Common Requirements Group	TURBINES - Common Requirements for Turbines
CRG 0002	Common Requirements Group	EFLARES - Common Requirements for Elevated Flares
CRG 0003	Common Requirements Group	HEATERS - Common Requirements for Hot Oil Heaters
CRG 0004	Common Requirements Group	SSWPUMPS - Common Requirements for Storm Water Pumps <= 500 hp
CRG 0005	Common Requirements Group	LSWPUMPS - Common Requirements for Storm Water Pumps > 500 hp
CRG 0006	Common Requirements Group	EM-ENGINES - Common Requirements for Emergency Engines
CRG 0007	Common Requirements Group	TANKS - Common Requirements for Storage Tanks
GRP 0001	Equipment Group	GFLRCAPA - Ground Flares Annual CAP
GRP 0002	Equipment Group	FGSO2CAP - Fuel Gas Fired Sources SO2 CAP
GRP 0003	Equipment Group	AGTOSO2CAP - Acid Gas Thermal Oxidizer SO2 CAP
UNF 0001	Unit or Facility Wide	AI201334 - Driftwood LNG Facility

Group Membership:

ID	Description	Member of Groups
EQT 0001	P01TU01 - Plant 1 - Turbine 1	CRG0000000001, GRP0000000002
EQT 0002	P01TU02 - Plant 1 - Turbine 2	CRG0000000001, GRP0000000002
EQT 0003	P01TU03 - Plant 1 - Turbine 3	CRG0000000001, GRP0000000002
EQT 0004	P01TU04 - Plant 1 - Turbine 4	CRG0000000001, GRP0000000002
EQT 0005	P02TU01 - Plant 2 - Turbine 1	CRG0000000001, GRP0000000002
EQT 0006	P02TU02 - Plant 2 - Turbine 2	CRG0000000001, GRP0000000002
EQT 0007	P02TU03 - Plant 2 - Turbine 3	CRG0000000001, GRP0000000002
EQT 0008	P02TU04 - Plant 2 - Turbine 4	CRG0000000001, GRP0000000002
EQT 0009	P03TU01 - Plant 3 - Turbine 1	CRG0000000001, GRP0000000002
EQT 0010	P03TU02 - Plant 3 - Turbine 2	CRG0000000001, GRP0000000002
EQT 0011	P03TU03 - Plant 3 - Turbine 3	CRG0000000001, GRP0000000002

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Group Membership:

ID	Description	Member of Groups
EQT 0012	P03TU04 - Plant 3 - Turbine 4	CRG0000000001, GRP0000000002
EQT 0013	P04TU01 - Plant 4 - Turbine 1	CRG0000000001, GRP0000000002
EQT 0014	P04TU02 - Plant 4 - Turbine 2	CRG0000000001, GRP0000000002
EQT 0015	P04TU03 - Plant 4 - Turbine 3	CRG0000000001, GRP0000000002
EQT 0016	P04TU04 - Plant 4 - Turbine 4	CRG0000000001, GRP0000000002
EQT 0017	P05TU01 - Plant 5 - Turbine 1	CRG0000000001, GRP0000000002
EQT 0018	P05TU02 - Plant 5 - Turbine 2	CRG0000000001, GRP0000000002
EQT 0019	P05TU03 - Plant 5 - Turbine 3	CRG0000000001, GRP0000000002
EQT 0020	P05TU04 - Plant 5 - Turbine 4	CRG0000000001, GRP0000000002
EQT 0021	P01TO01 - Plant 1 - Acid Gas Thermal Oxidizer 1	GRP0000000002, GRP0000000003
EQT 0022	P02TO01 - Plant 2 - Acid Gas Thermal Oxidizer 1	GRP0000000002, GRP0000000003
EQT 0023	P03TO01 - Plant 3 - Acid Gas Thermal Oxidizer 1	GRP0000000002, GRP0000000003
EQT 0024	P04TO01 - Plant 4 - Acid Gas Thermal Oxidizer 1	GRP0000000002, GRP0000000003
EQT 0025	P05TO01 - Plant 5 - Acid Gas Thermal Oxidizer 1	GRP0000000002, GRP0000000003
EQT 0026	CVTO - Condensate Vapor Thermal Oxidizer	GRP0000000002
EQT 0027	GFLR1D - Plants 1 and 2 Dry Gas Ground Flare	GRP0000000001, GRP0000000002
EQT 0028	GFLR2D - Plants 3, 4, and 5 Dry Gas Ground Flare	GRP0000000001, GRP0000000002
EQT 0029	GFLR1W - Plants 1 and 2 Wet Gas Ground Flare	GRP0000000001, GRP0000000002
EQT 0030	GFLR2W - Plants 3, 4, and 5 Wet Gas Ground Flare	GRP0000000001, GRP0000000002
EQT 0031	DFLARE01 - Dry Flare 01	CRG0000000002, GRP0000000002
EQT 0032	DFLARE02 - Dry Flare 02	CRG0000000002, GRP0000000002
EQT 0033	WFLARE01 - Wet Flare 01	CRG0000000002, GRP0000000002
EQT 0034	WFLARE02 - Wet Flare 02	CRG0000000002, GRP0000000002
EQT 0035	MFLARE01 - Marine Flare	GRP0000000002
EQT 0036	MFLARE01-MSS - Marine Flare - SU/SD and Maintenance	GRP0000000002
EQT 0038	P01H01 - Plant 1 - Hot Oil Heater 1	CRG0000000003, GRP0000000002
EQT 0039	P02H01 - Plant 2 - Hot Oil Heater 1	CRG0000000003, GRP0000000002
EQT 0040	P03H01 - Plant 3 - Hot Oil Heater 1	CRG0000000003, GRP0000000002
EQT 0041	P04H01 - Plant 4 - Hot Oil Heater 1	CRG0000000003, GRP0000000002
EQT 0042	P05H01 - Plant 5 - Hot Oil Heater 1	CRG0000000003, GRP0000000002
EQT 0045	SWP1P01 - Storm Water Pond 1 Pump 01	CRG0000000004
EQT 0046	SWP1P02 - Storm Water Pond 1 Pump 02	CRG0000000004
EQT 0047	SWP1P03 - Storm Water Pond 1 Pump 03	CRG0000000004
EQT 0048	SWP2P01 - Storm Water Pond 2 Pump 01	CRG0000000005
EQT 0049	SWP2P02 - Storm Water Pond 2 Pump 02	CRG0000000005
EQT 0050	SWP2P03 - Storm Water Pond 2 Pump 03	CRG0000000004
EQT 0052	LNGBP1 - LNG Basin Pump 1	CRG0000000005
EQT 0053	LNGBP2 - LNG Basin Pump 2	CRG0000000004
EQT 0054	FWP01 - Firewater Pump 01	CRG0000000006
EQT 0055	FWP02 - Firewater Pump 02	CRG0000000006
EQT 0056	ESSGEN01 - Essential Generator 01	CRG0000000006

INVENTORIES

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Group Membership:

ID	Description	Member of Groups
EQT 0057	ESSGEN02 - Essential Generator 02	CRG0000000006
EQT 0058	ESSGEN03 - Essential Generator 03	CRG0000000006
EQT 0059	ESSGEN04 - Essential Generator 04	CRG0000000006
EQT 0060	ESSGEN05 - Essential Generator 05	CRG0000000006
EQT 0061	MAGEN - Main Substation Generator	CRG0000000006
EQT 0062	CRGEN - Control Room Generator	CRG0000000006
EQT 0063	LOGEN - Loading Substation Generator	CRG0000000006
EQT 0065	#1 - Amine Surge Tank 1	CRG0000000007
EQT 0066	#2 - Amine Surge Tank 2	CRG0000000007
EQT 0067	#3 - Amine Surge Tank 3	CRG0000000007
EQT 0068	#4 - Amine Surge Tank 4	CRG0000000007
EQT 0069	#5 - Amine Surge Tank 5	CRG0000000007
EQT 0071	T-1203 - Scavenger Storage Tank	CRG0000000007
EQT 0072	T-2901 - Process Wastewater Tank	CRG0000000007
EQT 0074	T-1204 - Spent Scavenger Tank	CRG0000000007
EQT 0075	T-2909 - Waste Oil/Amine Tank	CRG0000000007
EQT 0081	T-2903 - Stormwater Pond 2 Diesel Tank	CRG0000000007

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
1710	1710 Minor Source Negotiated Fee	304866.21	

SIC Codes:

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	PM10			PM2.5			SO2			NOx		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility												
EQT 0001 P01TU01	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0002 P01TU02	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0003 P01TU03	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0004 P01TU04	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0005 P02TU01	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0006 P02TU02	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0007 P02TU03	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0008 P02TU04	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0009 P03TU01	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0010 P03TU02	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0011 P03TU03	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0012 P03TU04	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0013 P04TU01	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0014 P04TU02	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0015 P04TU03	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0016 P04TU04	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0017 P05TU01	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0018 P05TU02	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0019 P05TU03	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0020 P05TU04	3.57	3.57	15.62	3.57	3.57	15.62		0.76		7.31	7.31	32.01
EQT 0021 P01TO01	0.58	0.58	2.54	0.58	0.58	2.54		9.90		8.35	8.35	36.59
EQT 0022 P02TO01	0.58	0.58	2.54	0.58	0.58	2.54		9.90		8.35	8.35	36.59
EQT 0023 P03TO01	0.58	0.58	2.54	0.58	0.58	2.54		9.90		8.35	8.35	36.59

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	CO			VOC			CO2e		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility									
EQT 0001 P01TU01	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0002 P01TU02	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0003 P01TU03	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0004 P01TU04	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0005 P02TU01	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0006 P02TU02	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0007 P02TU03	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0008 P02TU04	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0009 P03TU01	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0010 P03TU02	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0011 P03TU03	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0012 P03TU04	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0013 P04TU01	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0014 P04TU02	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0015 P04TU03	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0016 P04TU04	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0017 P05TU01	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0018 P05TU02	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0019 P05TU03	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0020 P05TU04	22.25	26.70	97.44	1.13	1.13	4.97			277060
EQT 0021 P01TO01	7.27	7.27	31.83	12.13	12.13	53.14			471791
EQT 0022 P02TO01	7.27	7.27	31.83	12.13	12.13	53.14			471791
EQT 0023 P03TO01	7.27	7.27	31.83	12.13	12.13	53.14			471791

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	PM10			PM2.5			SO2			NOx		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility												
EQT 0024 P04T001	0.58	0.58	2.54	0.58	0.58	2.54		9.90		8.35	8.35	36.59
EQT 0025 P05T001	0.58	0.58	2.54	0.58	0.58	2.54		9.90		8.35	8.35	36.59
EQT 0026 CVTO	0.04	0.77	0.17	0.04	0.77	0.17		0.01		2.49	25.45	10.90
EQT 0027 GFLR1D		24.73			24.73						699.02	
EQT 0028 GFLR2D		24.73			24.73						699.02	
EQT 0029 GFLR1W		22.32			22.32						623.24	
EQT 0030 GFLR2W		22.32			22.32						623.24	
EQT 0031 DFLARE01	0.01	0.01	0.04	0.01	0.01	0.04		<0.01		0.22	0.22	0.96
EQT 0032 DFLARE02	0.01	0.01	0.04	0.01	0.01	0.04		<0.01		0.22	0.22	0.96
EQT 0033 WFLARE01	0.01	0.01	0.05	0.01	0.01	0.05		0.01		0.28	0.28	1.21
EQT 0034 WFLARE02	0.01	0.01	0.05	0.01	0.01	0.05		0.01		0.28	0.28	1.21
EQT 0035 MFLARE01	0.02	2.29	0.10	0.02	2.29	0.10		1.24		0.53	59.76	2.56
EQT 0036 MFLARE01-MSS	0.05	8.08	0.20	0.05	8.08	0.20		4.37		1.21	211.30	5.28
EQT 0038 P01H01	<0.01	0.12	0.02	<0.01	0.12	0.02		0.01		0.05	1.40	0.23
EQT 0039 P02H01	<0.01	0.12	0.02	<0.01	0.12	0.02		0.01		0.05	1.40	0.23
EQT 0040 P03H01	<0.01	0.12	0.02	<0.01	0.12	0.02		0.01		0.05	1.40	0.23
EQT 0041 P04H01	<0.01	0.12	0.02	<0.01	0.12	0.02		0.01		0.05	1.40	0.23
EQT 0042 P05H01	<0.01	0.12	0.02	<0.01	0.12	0.02		0.01		0.05	1.40	0.23
EQT 0045 SWP1P01	<0.01	0.02	<0.01	<0.01	0.02	<0.01	<0.01	0.01	<0.01	0.01	0.33	0.06
EQT 0046 SWP1P02	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.16	0.03
EQT 0047 SWP1P03	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.16	0.03
EQT 0048 SWP2P01	<0.01	0.07	0.01	<0.01	0.07	0.01	<0.01	0.01	<0.01	0.23	5.76	1.01
EQT 0049 SWP2P02	<0.01	0.07	0.01	<0.01	0.07	0.01	<0.01	0.01	<0.01	0.23	5.76	1.01

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	CO			VOC			CO2e		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility									
EQT 0024 P04TO01	7.27	7.27	31.83	12.13	12.13	53.14			471791
EQT 0025 P05TO01	7.27	7.27	31.83	12.13	12.13	53.14			471791
EQT 0026 CVTO	1.00	10.19	4.40	1.82	40.73	7.97			2939
EQT 0027 GFLR1D		3186.72			66.60				
EQT 0028 GFLR2D		3186.72			66.60				
EQT 0029 GFLR1W		2841.23			50.33				
EQT 0030 GFLR2W		2841.23			50.33				
EQT 0031 DFLARE01	1.00	1.00	4.39	<0.01	<0.01	0.01			1776
EQT 0032 DFLARE02	1.00	1.00	4.39	<0.01	<0.01	0.01			1776
EQT 0033 WFLARE01	1.26	1.26	5.50	<0.01	<0.01	0.01			2225
EQT 0034 WFLARE02	1.26	1.26	5.50	<0.01	<0.01	0.01			2225
EQT 0035 MFLARE01	2.41	272.45	11.67	<0.01	0.47	0.02			4719
EQT 0036 MFLARE01-MSS	5.50	963.29	24.08	0.04	7.19	0.18			9745
EQT 0038 P01H01	0.05	1.42	0.24	<0.01	0.09	0.01			317
EQT 0039 P02H01	0.05	1.42	0.24	<0.01	0.09	0.01			317
EQT 0040 P03H01	0.05	1.42	0.24	<0.01	0.09	0.01			317
EQT 0041 P04H01	0.05	1.42	0.24	<0.01	0.09	0.01			317
EQT 0042 P05H01	0.05	1.42	0.24	<0.01	0.09	0.01			317
EQT 0045 SWP1P01	0.11	2.88	0.50	0.01	0.16	0.03			100
EQT 0046 SWP1P02	0.06	1.44	0.25	<0.01	0.08	0.01			50
EQT 0047 SWP1P03	0.06	1.44	0.25	<0.01	0.08	0.01			50
EQT 0048 SWP2P01	0.23	5.76	1.01	0.01	0.31	0.05			201
EQT 0049 SWP2P02	0.23	5.76	1.01	0.01	0.31	0.05			201

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	PM10			PM2.5			SO2			NOx		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility												
EQT 0050 SWP2P03	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.23	0.04
EQT 0052 LNGBP1	<0.01	0.07	0.01	<0.01	0.07	0.01	<0.01	0.01	<0.01	0.23	5.76	1.01
EQT 0053 LNGBP2	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.13	0.02
EQT 0054 FWP01	<0.01	0.18	0.01	<0.01	0.18	0.01	<0.01	0.01	<0.01	0.04	3.62	0.18
EQT 0055 FWP02	<0.01	0.18	0.01	<0.01	0.18	0.01	<0.01	0.01	<0.01	0.04	3.62	0.18
EQT 0056 ESSGEN01	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0057 ESSGEN02	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0058 ESSGEN03	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0059 ESSGEN04	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0060 ESSGEN05	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0061 MAGEN	<0.01	0.25	0.01	<0.01	0.25	0.01	<0.01	0.01	<0.01	0.09	7.94	0.40
EQT 0062 CRGEN	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0063 LOGEN	0.01	0.49	0.02	0.01	0.49	0.02	<0.01	0.02	<0.01	0.18	15.69	0.78
EQT 0065 #1												
EQT 0066 #2												
EQT 0067 #3												
EQT 0068 #4												
EQT 0069 #5												
EQT 0071 T-1203												
EQT 0072 T-2901												
EQT 0075 T-2909												
EQT 0081 T-2903												
FUG 0001 FUG01												

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	CO			VOC			CO2e		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility									
EQT 0050 SWP2P03	0.08	2.01	0.35	<0.01	0.11	0.02			70
EQT 0052 LNGBP1	0.23	5.76	1.01	0.01	0.31	0.05			201
EQT 0053 LNGBP2	0.05	1.15	0.20	<0.01	0.06	0.01			40
EQT 0054 FWP01	0.04	3.67	0.18	0.04	3.62	0.18			31
EQT 0055 FWP02	0.04	3.67	0.18	0.04	3.62	0.18			31
EQT 0056 ESSGEN01	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0057 ESSGEN02	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0058 ESSGEN03	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0059 ESSGEN04	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0060 ESSGEN05	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0061 MAGEN	0.05	4.34	0.22	0.09	7.94	0.40			43
EQT 0062 CRGEN	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0063 LOGEN	0.10	8.58	0.43	0.18	15.69	0.78			85
EQT 0065 #1				<0.01	<0.01	<0.01			
EQT 0066 #2				<0.01	<0.01	<0.01			
EQT 0067 #3				<0.01	<0.01	<0.01			
EQT 0068 #4				<0.01	<0.01	<0.01			
EQT 0069 #5				<0.01	<0.01	<0.01			
EQT 0071 T-1203				<0.01	0.01	0.01			
EQT 0072 T-2901				<0.01	<0.01	<0.01			
EQT 0075 T-2909				<0.01	0.01	0.01			
EQT 0081 T-2903				<0.01	0.01	0.01			
FUG 0001 FUG01						93.97			9267

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	PM10			PM2.5			SO2			NOx		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility												
GRP 0001 GFLRCAPA	6.87		30.10	6.87		30.10				193.41		847.12
GRP 0002 FGSO2CAP							16.71		73.52			
GRP 0003 AGTOSO2CAP							13.70		60.00			

EMISSION RATES FOR CRITERIA POLLUTANTS AND CO2e

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Subject Item	CO			VOC			CO2e		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
Driftwood LNG Facility									
GRP 0001 GFLRCAPA	881.70		3861.86	18.66		81.75			
GRP 0002 FGSO2CAP									
GRP 0003 AGTOSO2CAP									

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0001 P01TU01	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0002 P01TU02	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0003 P01TU03	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0003 P01TU03	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0004 P01TU04	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0005 P02TU01	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0006 P02TU02	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0006 P02TU02	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0007 P02TU03	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0008 P02TU04	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0009 P03TU01	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0009 P03TU01	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0010 P03TU02	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0011 P03TU03	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0012 P03TU04	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0012 P03TU04	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0013 P04TU01	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0014 P04TU02	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0015 P04TU03	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0015 P04TU03	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0016 P04TU04	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0017 P05TU01	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0018 P05TU02	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0019 P05TU03	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07
	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0020 P05TU04	1,3-Butadiene	<0.001	<0.001	0.001
	Acetaldehyde	0.02	0.02	0.09
	Acrolein	0.003	0.003	0.015
	Ammonia	5.41	5.41	23.70
	Benzene	0.01	0.01	0.03
	Ethyl benzene	0.02	0.02	0.08
	Formaldehyde	0.38	0.38	1.68
	Naphthalene	<0.01	<0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	0.001	0.001	0.005
	Propylene oxide	0.02	0.02	0.07

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0020 P05TU04	Toluene	0.07	0.07	0.31
	Xylene (mixed isomers)	0.03	0.03	0.15
EQT 0021 P01TU01	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
	Benzene	0.11	0.11	0.49
	Formaldehyde	0.01	0.01	0.03
	Hydrogen sulfide	0.01	0.05	0.06
	n-Hexane	0.06	0.06	0.25
	Toluene	0.18	0.18	0.77
	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
EQT 0022 P02TU01	Benzene	0.11	0.11	0.49
	Formaldehyde	0.01	0.01	0.03
	Hydrogen sulfide	0.01	0.05	0.06
	n-Hexane	0.06	0.06	0.25
	Toluene	0.18	0.18	0.77
	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
	Benzene	0.11	0.11	0.49
EQT 0023 P03TU01	Formaldehyde	0.01	0.01	0.03
	Hydrogen sulfide	0.01	0.05	0.06
	n-Hexane	0.06	0.06	0.25
	Toluene	0.18	0.18	0.77
	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
	Benzene	0.11	0.11	0.49
	Formaldehyde	0.01	0.01	0.03
EQT 0024 P04TU01	Hydrogen sulfide	0.01	0.05	0.06
	n-Hexane	0.06	0.06	0.25
	Toluene	0.18	0.18	0.77
	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
	Benzene	0.11	0.11	0.49
	Formaldehyde	0.01	0.01	0.03
	Hydrogen sulfide	0.01	0.05	0.06
EQT 0025 P05TU01	n-Hexane	0.06	0.06	0.25
	Toluene	0.18	0.18	0.77
	1,4-Dichlorobenzene	<0.01	<0.01	<0.01
	Benzene	0.11	0.11	0.49
	Formaldehyde	0.01	0.01	0.03
	Hydrogen sulfide	0.01	0.05	0.06
	n-Hexane	0.06	0.06	0.25
EQT 0026 CVTO	Toluene	0.18	0.18	0.77
	Benzene	0.01	1.13	0.04
	Ethyl benzene	<0.01	0.01	<0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0026 CVTO	n-Hexane	0.10	4.13	0.45
	Toluene	<0.01	0.23	0.01
	Xylene (mixed isomers)	<0.01	0.03	<0.01
EQT 0027 GFLR1D	Benzene		0.41	
	Hydrogen sulfide		<0.01	
	n-Hexane		3.78	
	Toluene		0.47	
	Xylene (mixed isomers)		0.09	
EQT 0028 GFLR2D	Benzene		0.41	
	Hydrogen sulfide		<0.01	
	n-Hexane		3.78	
	Toluene		0.47	
	Xylene (mixed isomers)		0.09	
EQT 0029 GFLR1W	Benzene		1.09	
	Hydrogen sulfide		0.01	
	n-Hexane		2.61	
	Toluene		0.85	
	Xylene (mixed isomers)		0.30	
EQT 0030 GFLR2W	Benzene		1.09	
	Hydrogen sulfide		0.01	
	n-Hexane		2.61	
	Toluene		0.85	
EQT 0038 P01H01	Xylene (mixed isomers)		0.30	
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
EQT 0040 P03H01	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
EQT 0041 P04H01	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
EQT 0042 P05H01	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
	n-Hexane	<0.01	0.03	<0.01
EQT 0045 SWP1P01	Acetaldehyde	<0.01	<0.01	<0.01
	Benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01
EQT 0046 SWP1P02	Benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0047 SWP1P03	Benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
EQT 0048 SWP2P01	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
	Toluene	<0.01	<0.01	<0.01
EQT 0049 SWP2P02	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
	Toluene	<0.01	<0.01	<0.01
EQT 0050 SWP2P03	Acetaldehyde	<0.01	<0.01	<0.01
	Benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
EQT 0052 LNGBP1	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
	Toluene	<0.01	<0.01	<0.01
EQT 0053 LNGBP2	Formaldehyde	<0.01	<0.01	<0.01
EQT 0056 ESSGEN01	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0057 ESSGEN02	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0058 ESSGEN03	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0059 ESSGEN04	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0060 ESSGEN05	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0062 CRGEN	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
EQT 0063 LOGEN	Benzene	<0.01	0.01	<0.01
	Polynuclear Aromatic Hydrocarbons	<0.001	0.001	<0.001
FUG 0001 FUG01	Ammonia			0.40
	Benzene			0.86
	Hydrogen sulfide			<0.01
	n-Hexane			7.63
	Toluene			0.84

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
FUG 0001 FUG01	Xylene (mixed isomers)			0.09
GRP 0001 GFLRCAPA	Benzene	0.11		0.50
	Hydrogen sulfide	<0.01		0.01
	n-Hexane	1.04		4.56
	Toluene	0.13		0.58
	Xylene (mixed isomers)	0.06		0.26
UNF 0001 AI201334	1,3-Butadiene			0.020
	1,4-Dichlorobenzene			0.03
	Acetaldehyde			1.81
	Acrolein			0.300
	Ammonia			474.40
	Benzene			4.52
	Ethyl benzene			1.61
	Formaldehyde			33.78
	Hydrogen sulfide			0.32
	n-Hexane			13.92
	Naphthalene			0.10
	Polynuclear Aromatic Hydrocarbons			0.105
	Propylene oxide			1.40
	Toluene			11.50
	Xylene (mixed isomers)			3.36

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

SPECIFIC REQUIREMENTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

CRG 0001 TURBINES - Common Requirements for Turbines

Group Members: EQT 0001EQT 0002EQT 0003EQT 0004EQT 0005EQT 0006EQT 0007EQT 0008EQT 0009EQT 0010EQT 0011EQT 0012EQT 0013EQT 0014EQT 0015EQT 0016EQT 0017EQT 0018EQT 0019EQT 0020

- 1 [40 CFR 60.4320(a)] Option 1: Nitrogen oxides (NOx) \leq 25 ppm @ 15%O₂. Subpart KKKK. [40 CFR 60.4320(a)]
Which Months: All Year Statistical Basis: Hourly average
- 2 [40 CFR 60.4320(a)] Option 2: Nitrogen oxides (NOx) \leq 1.2 lb/MWh (150 ng/J) of useful output. Subpart KKKK. [40 CFR 60.4320(a)]
Which Months: All Year Statistical Basis: Hourly average
- 3 [40 CFR 60.4333(a)] Operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. Subpart KKKK. [40 CFR 60.4333(a)]
- 4 [40 CFR 60.4340(b)(2)iii] Install, calibrate, maintain, and operate a continuous parameter monitoring system (CPMS) for NOx emissions to verify the proper operation of the emission controls. [40 CFR 60.4340(b)(2)iii]
- 5 [40 CFR 60.4355(a)] Monitor the steam or water to fuel ratio or other parameters that are continuously monitored as described in 40 CFR 60.4335 and 60.4340 during the performance test required under 40 CFR 60.8, to establish acceptable values and ranges. Develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NOx emission controls. Include in the plan the information specified in 40 CFR 60.4355(a)(1) through (a)(6). Subpart KKKK. [40 CFR 60.4355(a)]
- 6 [40 CFR 60.4365] Sulfur dioxide (SO₂) \leq 0.060 lb/MMBTU (26 ng/J). Use one of the sources of information specified in 40 CFR 60.4365(a) and (b) to make the required demonstration. Subpart KKKK.
Which Months: All Year Statistical Basis: None specified
- 7 [40 CFR 60.4375(a)] Submit excess emissions reports and monitor downtime, in accordance with 40 CFR 60.7(c). Report excess emissions for all periods of unit operation, including start-up, shutdown, and malfunction. Subpart KKKK. [40 CFR 60.4375(a)]
- 8 [40 CFR 60.4375(b)] Submit performance test results: Due in writing before the close of business on the 60th day following the completion of the performance test. Submit KKKK. [40 CFR 60.4375(b)]
- 9 [40 CFR 60.4395] Postmark the excess emissions report required under 40 CFR 60.7(c) by the 30th day following the end of each 6-month period. Subpart KKKK.
- 10 [40 CFR 60.4400] Conduct an initial performance test for NOx, as required in 40 CFR 60.8. Use one of methodologies specified in 40 CFR 60.4400(a)(1)(i) and (a)(1)(ii). If using a NOx-diluent CEMS according to 40 CFR 60.4345, then the test may be performed as specified in 40 CFR 60.4405(a) through (d). Subpart KKKK.
- 11 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. (Complies by using sweet natural gas as fuel).
Which Months: All Year Statistical Basis: Six-minute average
- 12 [LAC 33:III.507.H.1.a] Operating rate monitored by technically sound method daily. This condition shall not apply if the most recent LDEQ required performance/emissions test was conducted at greater than or equal to 80% of the maximum permitted load.
Which Months: All Year Statistical Basis: None specified
- 13 [LAC 33:III.507.H.1.a] Operating rate recordkeeping by electronic or hard copy daily. This condition shall not apply if the most recent LDEQ required performance/emissions test was conducted at greater than or equal to 80% of the maximum permitted load.

SPECIFIC REQUIREMENTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

CRG 0001 TURBINES - Common Requirements for Turbines

- 14 [LAC 33:III.507.H.1.a] Permittee shall conduct performance tests for CO and particulate emissions from one turbine of each liquefaction train. The tests shall be repeated within 60 months on another turbine of each train. The following test methods shall be used unless otherwise specified in an applicable state or federal regulation: New Source Performance Standards, 40 CFR 60, Appendix A, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 202 - Dry Impinger Method for Determining Condensable Particulate Emissions from Stationary Sources; and Method 201A - Determination of PM10 and PM2.5 Emissions from Stationary Sources (Constant Sampling Rate Procedure). Use of Method 5 - Determination of Particulate Matter Emissions from Stationary Sources is allowed as an alternate only in stacks that have entrained moisture droplets (e.g., a wet scrubber stack) or if all filterable particulate matter detected is assumed to be PM2.5. The test's purpose is to demonstrate compliance with the emission limits of this permit; therefore, conduct each test run within 80 percent of maximum permitted load, or within 10 percent of 100 percent maximum achievable load. Use alternate stack test methods only with the prior approval of the Office of Environmental Services. Provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits, as required by LAC 33:III.913.
- 15 [LAC 33:III.507.H.1.a] Submit Notification: Due within 14 days to the Office of Environmental Services if the source is operated at a load that is more than 10 percent higher than the rate at which the most recent LDEQ required performance/emissions test was conducted. Determine the operating load of the source based on a 30 day rolling average. Calculate the increase in operating load as a percentage of the rate at which the most recent performance/emissions test was conducted. Include information identifying the source, the data used to calculate the operating rate during the 30 day rolling average, and a description of the circumstances that caused the source to operate more than 10 percent higher than the rate at which the most recent performance/emissions test was conducted. This condition shall not apply if the most recent LDEQ required performance/emissions test was conducted at greater than or equal to 80% of the maximum permitted load.
- 16 [LAC 33:III.507.H.1.a] Submit notification: Due to the Office of Environmental Services at least 30 days prior to any LDEQ required performance/emissions test. Submit notification in order to provide the opportunity to conduct a pretest meeting and observe the emission testing. Submit notification at least 45 days prior to the deadline specified in this permit indicating the reason that the test will not be conducted by the specified deadline, if any LDEQ required performance/emissions test will not be conducted by the deadline specified in this permit. This notification will be evaluated by the department on a case-by-case basis to determine if an extension to the deadline for testing specified in this permit is warranted. The deadline for testing specified in this permit shall remain in effect until the department responds in writing with an extension to this deadline.
- 17 [LAC 33:III.507.H.1.a] Submit report: Due within 60 days after performance/emissions test. Submit performance/emissions test results to the Office of Environmental Services. Include any necessary conversion into the units of any applicable standard (lbs/MMBtu, gr/dscf, lbs SO₂ / ton 100% H₂SO₄, etc.). Include plant and in house laboratory data to support production values (example: how many tons of 100% equivalent H₂SO₄ was being produced).
- 18 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas for SO₂; Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} ≤ 0.0066 lb/MM BTU and VOC ≤ 0.0021 lb/MM BTU (HHV); Good Combustion Practices to limit CO ≤ 25 ppmvd at 15% O₂; DLN and/or SCR to limit NO_x ≤ 5 ppmvd at 15% O₂.

CRG 0002 EFLARES - Common Requirements for Elevated Flares

Group Members: EQT 0031EQT 0032EQT 0033EQT 0034

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- 19 [LAC 33:III.1101.B] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A.
Which Months: All Year Statistical Basis: None specified
- 20 [LAC 33:III.1105] Opacity \leq 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A.
Which Months: All Year Statistical Basis: None specified
- 21 [LAC 33:III.1105] Submit notification: Due to SPOC as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:I.3923. Notification is required only if the upset cannot be controlled in six hours.
- 22 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 23 [LAC 33:III.1513.C] Equipment/operational data recordkeeping by electronic or hard copy once initially and annually. Record and retain at the site sufficient data to show annual potential sulfur dioxide emissions.
- 24 [LAC 33:III.509] Shall comply with the following BACT: Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas for SO₂ and VOC; Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} \leq 2.5 lb/MM scf, NO_x \leq 0.0680 lb/MM BTU (HHV), and CO \leq 0.310 lb/MM BTU (HHV).

CRG 0003 HEATERS - Common Requirements for Hot Oil Heaters

Group Members: EQT 0038 EQT 0039 EQT 0040 EQT 0041 EQT 0042

- 25 [40 CFR 63.7500(a)(1)] Conduct a tune-up annually as specified in 40 CFR 63.7540. Conduct tune-up as a work practice for all regulated emissions under 40 CFR 63 Subpart DDDDD, for units in either the Gas 1 or Metal Process Furnace subcategories. Conduct this tune-up as a work practice for dioxins/furans, for units in all other subcategories. Subpart DDDDD. [40 CFR 63.7500(a)(1), 40 CFR 63.7540(a)(10), 40 CFR 63.7530(h)]
- 26 [40 CFR 63.7500(a)(1)] Have a one-time energy assessment performed by a qualified energy assessor. Include a visual inspection of the boiler or process heater system; an evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boilers and process heaters; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified; a list of cost-effective energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. Subpart DDDDD. [40 CFR 63.7500(a)(1)]
- 27 [40 CFR 63.7500(a)(3)] Operate and maintain at all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Subpart DDDDD. [40 CFR 63.7500(a)(3)]
- 28 [40 CFR 63.7500(c)] Complete a tune-up every 5 years as specified in 40 CFR 63.7540. Subpart DDDDD. [40 CFR 63.7500(c), 40 CFR 63.7540(a)(12)]
- 29 [40 CFR 63.7505(a)] Be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR 63 Subpart DDDDD at all times the affected unit is operating except for the periods noted in 40 CFR 63.7500(f). Subpart DDDDD. [40 CFR 63.7505(a)]

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CRG 0003 HEATERS - Common Requirements for Hot Oil Heaters

- 30 [40 CFR 63.7515(d)] Conduct an annual, biennial, or 5-year performance tune-up according to 40 CFR 63.7540(a)(10), (a)(11), or (a)(12), respectively, if required to meet an applicable tune-up work practice standard. Ensure that each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13 months after the previous tune-up, each biennial tune-up specified in 40 CFR 63.7540(a)(11) is conducted no more than 25 months after the previous tune-up, and each 5-year tune-up specified in 40 CFR 63.7540(a)(12) is conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 CFR 63.7490), ensure that the first annual, biennial, or 5-year tune-up is no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source. Subpart DDDDD. [40 CFR 63.7515(d)]
- 31 [40 CFR 63.7530(e)] Include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to 40 CFR 63 Subpart DDDDD, Table 3 and is an accurate depiction of the facility at the time of the assessment. Subpart DDDDD. [40 CFR 63.7530(e)]
- 32 [40 CFR 63.7530(g)] Conduct an initial fuel specification analyses according to 40 CFR 63.7521(f) through (i) and according to the frequency listed in 40 CFR 63.7540(c) and maintain records of the results of the testing as outlined in 40 CFR 63.7555(g), if electing to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel as defined in 40 CFR 63.7575. Include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas specification outlined in the definition of other gas 1 fuels, for samples where the initial mercury specification has not been exceeded. Subpart DDDDD. [40 CFR 63.7530(g)]
- 33 [40 CFR 63.7540(a)(13)] Conduct the tune-up within 30 calendar days of startup, if the unit is not operating on the required date for a tune-up. Subpart DDDDD. [40 CFR 63.7540(a)(13)]
- 34 [40 CFR 63.7545(a)] Submit to DEQ all of the applicable notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (f)(6), and 40 CFR 63.9(b) through (h) by the dates specified. Subpart DDDDD. [40 CFR 63.7545(a)]
- 35 [40 CFR 63.7545(c)] Submit Initial Notification: Due not later than 15 days after the actual date of startup of the affected source, as specified in 40 CFR 63.9(b)(4) and (b)(5). Subpart DDDDD. [40 CFR 63.7545(c)]
- 36 [40 CFR 63.7550(h)(3)] Submit compliance report electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Submit the report to the appropriate address listed in 40 CFR 63.13, if the reporting form specific to 40 CFR 63 Subpart DDDDD is not available in CEDRI at the time that the report is due. Submit these reports to DEQ in the format specified, if required. Subpart DDDDD. [40 CFR 63.7550(h)(3)]
- 37 [40 CFR 63.7550] Submit compliance status report: Due semiannually, by the 31st of January and July, according to the requirements in 40 CFR 63.7550(b). Submit the information specified in 40 CFR 63.7550(c)(1) through (c)(5), as applicable. Include the information specified in 40 CFR 63.7550(d)(1) through (d)(3) for each deviation from an emission limit or operating limit in 40 CFR 63 Subpart DDDDD that occurs where a CMS is not being used to comply with that emission limit or operating limit. Include the information in 40 CFR 63.7550(e)(1) through (e)(9) for each deviation from an emission limit, operating limit, and monitoring requirement in 40 CFR 63 Subpart DDDDD that occurs where a CMS is being used to comply with that emission limit or operating limit. Subpart DDDDD. [40 CFR 63.7550, 40 CFR 63.7540(b)]
- 38 [40 CFR 63.7555] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7555(a) through (j), as applicable. Subpart DDDDD.
- 39 [40 CFR 63.7560(a)] Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(a)]
- 40 [40 CFR 63.7560(b)] Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in 40 CFR 63.10(b)(1). Subpart DDDDD. [40 CFR 63.7560(b)]

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CRG 0003 HEATERS - Common Requirements for Hot Oil Heaters

- 41 [40 CFR 63.7560(c)] Keep each record on site, or ensure that they are accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The remaining 3 years may be kept offsite. Subpart DDDDD. [40 CFR 63.7560(c)]
- 42 [LAC 33:III.1101.B] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 43 [LAC 33:III.1313.C] Total suspended particulate \leq 0.6 lb/MMBTU of heat input.
Which Months: All Year Statistical Basis: None specified
- 44 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas for SO₂; Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} \leq 0.0075 lb/MM BTU and VOC \leq 0.0054 lb/MM BTU (HHV); Good Combustion Practices for CO; ULNB and Good Combustion Practices for NO_x.

CRG 0004 SSWPUMPS - Common Requirements for Storm Water Pumps \leq 500 hp

Group Members: EQT 0045EQT 0046EQT 0047EQT 0050EQT 0053

- 45 [40 CFR 60.4204(b)] Comply with the emission standards for new CI engines in 40 CFR 60.4201, as applicable. Subpart IIII. [40 CFR 60.4204(b)]
- 46 [40 CFR 60.4206] Operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine. Subpart IIII.
- 47 [40 CFR 60.4207(b)] Use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Subpart IIII. [40 CFR 60.4207(b)]
- 48 [40 CFR 60.4211(a)(1)] Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(1)]
- 49 [40 CFR 60.4211(a)(2)] Change only those emission-related settings that are permitted by the manufacturer, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(2)]
- 50 [40 CFR 60.4211(a)(3)] Meet the requirements of 40 CFR 89, 94 and/or 1068, as applicable, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(3)]
- 51 [40 CFR 60.4211(c)] Ensure engine is certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's emissions-related specifications, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(c)]
- 52 [40 CFR 60.4211(g)] Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year after the engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions (can include within 1 year of startup), or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacturer. Subpart IIII. [40 CFR 60.4211(g)]
- 53 [40 CFR 60.4211(g)] Keep a maintenance plan and records of conducted maintenance. Subpart IIII. [40 CFR 60.4211(g)]

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CRG 0004 SSWPUMPS - Common Requirements for Storm Water Pumps <= 500 hp

- 54 [40 CFR 60.4211(g)] Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Subpart IIII. [40 CFR 60.4211(g)]
- 55 [40 CFR 60.4218] Shall comply with provisions of 40 CFR 60.1 through §60.19 as specified in 40 CFR 60 Subpart IIII Table 8.
- 56 [40 CFR 63.6590(c)] Meet the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. Subpart ZZZZ. [40 CFR 63.6590(c)]
- 57 [LAC 33:III.1101.B] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 58 [LAC 33:III.1311.C] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 59 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and compliance with 40 CFR 60 Subpart IIII.

CRG 0005 LSWPUMPS - Common Requirements for Storm Water Pumps > 500 hp

Group Members: EQT 0048 EQT 0049 EQT 0052

- 60 [40 CFR 60.4204(b)] Comply with the emission standards for new CI engines in 40 CFR 60.4201, as applicable. Subpart IIII. [40 CFR 60.4204(b)]
- 61 [40 CFR 60.4206] Operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine. Subpart IIII.
- 62 [40 CFR 60.4207(b)] Use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Subpart IIII. [40 CFR 60.4207(b)]
- 63 [40 CFR 60.4211(a)(1)] Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(1)]
- 64 [40 CFR 60.4211(a)(2)] Change only those emission-related settings that are permitted by the manufacturer, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(2)]
- 65 [40 CFR 60.4211(a)(3)] Meet the requirements of 40 CFR 89, 94 and/or 1068, as applicable, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(3)]
- 66 [40 CFR 60.4211(c)] Ensure engine is certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's emissions-related specifications, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(c)]
- 67 [40 CFR 60.4211(g)] Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year after the engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions (can include within 1 year of startup), or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacturer. Conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, if the engine is greater than 500 HP. Subpart IIII. [40 CFR 60.4211(g)]
- 68 [40 CFR 60.4211(g)] Keep a maintenance plan and records of conducted maintenance. Subpart IIII. [40 CFR 60.4211(g)]

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CRG 0005 LSWPUMPS - Common Requirements for Storm Water Pumps > 500 hp

- 69 [40 CFR 60.4211(g)] Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Subpart IIII. [40 CFR 60.4211(g)]
- 70 [40 CFR 60.4218] Shall comply with provisions of 40 CFR 60.1 through §60.19 as specified in 40 CFR 60 Subpart IIII Table 8.
- 71 [40 CFR 63.6600(b)] Carbon monoxide (CO) \geq 70 % reduction or formaldehyde concentration in flue gas \leq 580 ppbvd at 15% O₂. Subpart ZZZZ. [40 CFR 63.6600(b)]
- Which Months: All Year Statistical Basis: Three one-hour test average
- 72 [40 CFR 63.6600(b)] Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. Subpart ZZZZ. [40 CFR 63.6600(b), 40 CFR 63.6625(h)]
- 73 [40 CFR 63.6605(a)] Be in compliance with the applicable emission limitations, operating limitations and other requirements in 40 CFR 63 Subpart ZZZZ at all times. Subpart ZZZZ. [40 CFR 63.6605(a)]
- 74 [40 CFR 63.6605(b)] Operate and maintain at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Subpart ZZZZ. [40 CFR 63.6605(b)]
- 75 [40 CFR 63.6610(a)] Shall conduct initial compliance demonstration (test) in according to the provisions of 40 CFR 63.7(a)(2). The demonstration (test) shall be performed within 180 days of the compliance date specified in 40 CFR 63.6595. [40 CFR 63.6610(a)]
- 76 [40 CFR 63.6615] Conduct subsequent performance tests semiannually. Subpart ZZZZ.
- 77 [40 CFR 63.6620(a)] Conduct each applicable performance test in 40 CFR 63 Subpart ZZZZ Tables 3 and 4. Subpart ZZZZ. [40 CFR 63.6620(a)]
- 78 [40 CFR 63.6625] Comply with applicable requirements of 40 CFR 63.6625(a) for the CEMS or 63.6625(b) for the CPMS as specified in 40 CFR 63 Subpart ZZZZ Table 5.
- 79 [40 CFR 63.6630(a)] Demonstrate initial compliance with each applicable emission and operating limitation according to 40 CFR 63 Subpart ZZZZ Table 5. Subpart ZZZZ. [40 CFR 63.6630(a)]
- 80 [40 CFR 63.6630(b)] During the initial performance test, permittee shall establish each applicable operating limitation listed in 40 CFR 63 Subpart ZZZZ Tables 1b and 2b. [40 CFR 63.6630(b)]
- 81 [40 CFR 63.6630(c)] Submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.6645. Subpart ZZZZ. [40 CFR 63.6630(c)]
- 82 [40 CFR 63.6635] Shall demonstrate continuous compliance in accordance with 40 CFR 63.6635(a), (b), and (c).
- 83 [40 CFR 63.6640(a)] Demonstrate continuous compliance with each applicable emission limitation, operating limitation, and other requirements in 40 CFR 63 Subpart ZZZZ Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d according to methods specified in 40 CFR 63 Subpart ZZZZ Table 6. Subpart ZZZZ. [40 CFR 63.6640(a)]
- 84 [40 CFR 63.6640(b)] Conduct a performance test to demonstrate that the required applicable emission limitation is being met, if the values of the operating parameters are reestablished. Subpart ZZZZ. [40 CFR 63.6640(b)]
- 85 [40 CFR 63.6640(b)] Report each instance in which each applicable emission limitation or operating limitation in 40 CFR 63 Subpart ZZZZ Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d were not met according to the requirements of 40 CFR 63.6650. Subpart ZZZZ. [40 CFR 63.6640(b)]
- 86 [40 CFR 63.6640(e)] Report each instance in which the applicable requirements in 40 CFR 63 Subpart ZZZZ Table 8 were not met. Subpart ZZZZ. [40 CFR 63.6640(e)]
- 87 [40 CFR 63.6645] Submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b) through (e), (g), and (h) by the dates specified, as specified in 40 CFR 63.6645(b) through (f). Subpart ZZZZ.

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CRG 0005 LSWPUMPS - Common Requirements for Storm Water Pumps > 500 hp

- 88 [40 CFR 63.6650(f)] Report all deviations as defined in 40 CFR 63 Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). Subpart ZZZZ. [40 CFR 63.6650(f)]
- 89 [40 CFR 63.6650] Submit compliance status report: Due semiannually, by the 31st of January and July, according to the requirements in 40 CFR 63.6650(b)(1) through (b)(5). Include the information specified in 40 CFR 63.6650(c)(1) through (c)(6) and 40 CFR 63 Subpart ZZZZ Table 7 1.a, 1.b, or 1.c. Include the information in 40 CFR 63.6650(d)(1) and (d)(2) and 63.6650(e)(1) through (e)(12), if applicable. Subpart ZZZZ.
- 90 [40 CFR 63.6655] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.6655(a) through (f), as applicable. Subpart ZZZZ.
- 91 [LAC 33:III.1101.B] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 92 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 93 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and compliance with 40 CFR 60 Subpart IIII.

CRG 0006 EM-ENGINES - Common Requirements for Emergency Engines

Group Members: EQT 0054EQT 0055EQT 0056EQT 0057EQT 0058EQT 0059EQT 0060EQT 0061EQT 0062EQT 0063

- 94 [40 CFR 60.4205(b)] Emergency Generators (EQT0056 through EQT0063): Comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power. Subpart IIII. [40 CFR 60.4205(b)]
- 95 [40 CFR 60.4205(c)] Firewater Pumps (EQT0054 and EQT0055): Particulate matter (10 microns or less) (PM10) \leq 0.15 g/BHP-hr (0.20 g/KW-hr). Subpart IIII. [40 CFR 60.4205(c)]
Which Months: All Year Statistical Basis: None specified
- 96 [40 CFR 60.4205(c)] Firewater Pumps (EQT0054 and EQT0055): Non-methane hydrocarbons plus Nitrogen oxides (NOx) \leq 3.0 g/BHP-hr (4.0 g/KW-hr). Subpart IIII. [40 CFR 60.4205(c)]
Which Months: All Year Statistical Basis: None specified
- 97 [40 CFR 60.4206] Operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine. Subpart IIII.
- 98 [40 CFR 60.4207(b)] Use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Subpart IIII. [40 CFR 60.4207(b)]
- 99 [40 CFR 60.4209(a)] Operating time monitored by hour/time monitor continuously during operation. If the emergency engine meets the standards applicable to emergency engines, install a non-resettable hour meter prior to startup of the engine. Subpart IIII. [40 CFR 60.4209(a)]
Which Months: All Year Statistical Basis: None specified
- 100 [40 CFR 60.4211(a)(1)] Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(1)]

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CRG 0006 EM-ENGINES - Common Requirements for Emergency Engines

- 101 [40 CFR 60.4211(a)(2)] Change only those emission-related settings that are permitted by the manufacturer, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(2)]
- 102 [40 CFR 60.4211(a)(3)] Meet the requirements of 40 CFR 89, 94 and/or 1068, as applicable, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(a)(3)]
- 103 [40 CFR 60.4211(c)] Ensure engine is certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's emissions-related specifications, except as permitted in 40 CFR 60.4211(g). Subpart IIII. [40 CFR 60.4211(c)]
- 104 [40 CFR 60.4211(f)(2)(i)] Operate for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by the federal, state or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. LDEQ may be petitioned for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if records are maintained indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Subpart IIII. [40 CFR 60.4211(f)(2)(i)]
- 105 [40 CFR 60.4211(f)(3)] Operate for up to 50 hours per calendar year in non-emergency situations. Count the 50 hours of operation in non-emergency situations as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 60.4211(f)(2)(i). Do not use the 50 hours per calendar year for non-emergency situations for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except as provided in 40 CFR 60.4211(f)(3)(i). Subpart IIII. [40 CFR 60.4211(f)(3)]
- 106 [40 CFR 60.4211(f)] Operate according to the requirements in 40 CFR 60.4211(f)(1), (f)(2)(i), and (f)(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than as described in 40 CFR 60.4211(f)(1), (f)(2)(i), and (f)(3) is prohibited. If the engine is not operated according to these requirements, the engine will not be considered an emergency engine under 40 CFR 60 Subpart IIII and must meet all requirements for non-emergency engines. Subpart IIII. [40 CFR 60.4211(f)]
- 107 [40 CFR 60.4211(g)] Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year after the engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions (can include within 1 year of startup), or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacturer. Conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, if the engine is greater than 500 HP. Subpart IIII. [40 CFR 60.4211(g)]
- 108 [40 CFR 60.4211(g)] Keep a maintenance plan and records of conducted maintenance. Subpart IIII. [40 CFR 60.4211(g)]
- 109 [40 CFR 60.4211(g)] Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. Subpart IIII. [40 CFR 60.4211(g)]
- 110 [40 CFR 60.4214(b)] Operating time recordkeeping by electronic or hard copy upon occurrence of event. If the emergency engine meets the standards applicable to emergency engines in the applicable model year, keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. Record the time of operation of the engine and the reason the engine was in operation during that time. Subpart IIII. [40 CFR 60.4214(b)]
- 111 [40 CFR 60.4218] Shall comply with provisions of 40 CFR 60.1 through §60.19 as specified in 40 CFR 60 Subpart IIII Table 8.
- 112 [40 CFR 63.6645(f)] Shall submit an initial notification that includes information specified in 40 CFR 63.9(b)(2)(i) through (v). Subpart ZZZZ. [40 CFR 63.6645(f)]

SPECIFIC REQUIREMENTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

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CRG 0006 EM-ENGINES - Common Requirements for Emergency Engines

- 113 [LAC 33:III.1101.B] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 114 [LAC 33:III.1311.C] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 115 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and compliance with 40 CFR 60 Subpart IIII.

CRG 0007 TANKS - Common Requirements for Storage Tanks

Group Members: EQT 0065EQT 0066EQT 0067EQT 0068EQT 0069EQT 0071EQT 0072EQT 0074EQT 0075EQT 0081

- 116 [LAC 33:III.509] Permittee shall comply with the following BACT for VOC emissions:
Amine Surge Tanks (EQT0065, EQT0066, EQT0067, EQT0068, EQT0069) and Diesel Tank (EQT0081) - equipped with fixed roofs and submerged fill pipes in combination with good work practices;
Process Wastewater Tank (EQT0072) and Waste Oil/Amine Tank (EQT0075) - Internal Floating roofs;
Spent Scavenger Tank (EQT0074) - Closed vent system and a control device.

EQT 0026 CVTO - Condensate Vapor Thermal Oxidizer

- 117 [LAC 33:III.509] Shall comply with the following BACT: Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas for SO₂ and VOC; Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} <= 0.008 lb/MM BTU; Good Combustion Practices for CO; LNB and Good Combustion Practices for NO_x.

EQT 0035 MFLARE01 - Marine Flare

- 118 [40 CFR 60.18(c)(1)] Design and operate for no visible emissions, as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Subpart A. [40 CFR 60.18(c)(1)]
- 119 [40 CFR 60.18(c)(2)] Operate with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f)(2). Subpart A. [40 CFR 60.18(c)(2)]
- 120 [40 CFR 60.18(c)(3)(ii)] Heat content >= 300 BTU/scf (11.2 MJ/scm). Determine the net heating value of the gas being combusted by the methods specified in 40 CFR 60.18(f)(3). Subpart A. [40 CFR 60.18(c)(3)(ii)]
Which Months: All Year Statistical Basis: None specified
- 121 [40 CFR 60.18(c)(5)] Shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in paragraph (f)(6). [40 CFR 60.18(c)(5)]
- 122 [40 CFR 60.18(d)] Monitor flares to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how to monitor flares. Subpart A. [40 CFR 60.18(d)]
- 123 [40 CFR 60.18(e)] Operate at all times when emissions may be vented to the flare. Subpart A. [40 CFR 60.18(e)]

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EQT 0035 MFLARE01 - Marine Flare

- 124 [40 CFR 60.18(f)(2)] Presence of a flame monitored by flame monitor continuously. Use a thermocouple or any other equivalent device to detect the presence of a flare pilot flame. Subpart A. [40 CFR 60.18(f)(2)]
Which Months: All Year Statistical Basis: None specified
- 125 [LAC 33:III.1101.B] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A.
Which Months: All Year Statistical Basis: None specified
- 126 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 127 [LAC 33:III.509] Shall comply with the following BACT: Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas for SO₂ and VOC; Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} \leq 2.5 lb/MM scf, NOX \leq 0.0680 lb/MM BTU (HHV), and CO \leq 0.310 lb/MM BTU (HHV).

EQT 0036 MFLARE01-MSS - Marine Flare - SU/SD and Maintenance

- 128 [LAC 33:III.509] Shall comply with the following BACT: Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas for SO₂ and VOC; Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} \leq 2.5 lb/MM scf, NOX \leq 0.0680 lb/MM BTU (HHV), and CO \leq 0.310 lb/MM BTU (HHV).

EQT 0076 T-2301 - Condensate Storage Tank

- 129 [40 CFR 60.112b(a)(3)(ii)] VOC, Total \geq 95 % reduction efficiency using a closed vent system and control device. Subpart Kb. [40 CFR 60.112b(a)(3)(ii)]
Which Months: All Year Statistical Basis: None specified
- 130 [40 CFR 60.112b(a)(3)] Equip with a closed vent system and control device. Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions. Subpart Kb. [40 CFR 60.112b(a)(3)]
- 131 [40 CFR 60.112b(b)(1)] Equip with a closed vent system and control device as specified in 40 CFR 60.112b(a)(3). Subpart Kb. [40 CFR 60.112b(b)(1)]
- 132 [40 CFR 60.116b(b)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Keep copies of all records for the life of the source as specified by 40 CFR 60.116b(a). Subpart Kb. [40 CFR 60.116b(b)]
- 133 [40 CFR 60.116b(c)] VOL storage data recordkeeping by electronic or hard copy at the approved frequency. Records consist of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Keep copies of all records for at least two years.
Subpart Kb. [40 CFR 60.116b(c)]
- 134 [40 CFR 63.2396(a)(2)] Shall comply with 40 CFR 63 Subpart EEEE by complying with all applicable provisions of 40 CFR 60 Subpart Kb. [40 CFR 63.2396(a)(2)]
- 135 [LAC 33:III.2103.B] Equip with a submerged fill pipe.
- 136 [LAC 33:III.2103.E.1] VOC, Total \geq 95 % control efficiency using a vapor loss control system. This limitation does not apply during periods of planned routine maintenance which may not exceed 240 hours per year.
Which Months: All Year Statistical Basis: None specified

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EQT 0076 T-2301 - Condensate Storage Tank

- 137 [LAC 33:III.2103.E] Equip with a vapor loss control system that consists of a gathering system capable of collecting volatile organic compound vapors and a vapor disposal system capable of processing such organic vapors. Ensure that all tank gauging and sampling devices are gas-tight except when gauging or sampling is taking place.
- 138 [LAC 33:III.2103.H.3] Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e.
- 139 [LAC 33:III.2103.I] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1 through I.7, as applicable. Maintain records for at least two years.
- 140 [LAC 33:III.509] Tank vent(s) shall be controlled by a closed vent system and the Condensate Vapor Thermal Oxidizer (CVTO) as BACT.

EQT 0080 TL-2301 - Condensate Truck Loading

- 141 [40 CFR 63.2346(b)(1)] TOC or Organic HAP \geq 98 % reduction by weight, or \leq 20 ppmv (dry basis @ 3% O₂) by venting the emissions that occur during loading through a closed-vent system to any combination of control devices meeting the applicable requirements of 40 CFR 63 Subpart SS. Subpart EEEE. [40 CFR 63.2346(b)(1)]
Which Months: All Year Statistical Basis: None specified
- 142 [40 CFR 63.2346(d)(1)] Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i) when loading into transport vehicles equipped with vapor collection equipment. Subpart EEEE. [40 CFR 63.2346(d)(1)]
- 143 [40 CFR 63.2346(d)(2)] Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR 180 for cargo tanks or 49 CFR 173.31 for tank cars, when loading into transport vehicles without vapor collection equipment. Subpart EEEE. [40 CFR 63.2346(d)(2)]
- 144 [40 CFR 63.2378(a)] Equipment/operational data monitored by the regulation's specified method(s) quarterly during the loading of a transport vehicle or the filling of a container. Monitor each potential source of vapor leakage in the system using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in 40 CFR 63 Subpart EEEE Table 4 Item 4. If a reading of 500 pmv is measured, a leak is detected. If a leak is detected, repair according to the repair requirements specified in the selected equipment leak standards. Subpart EEEE. [40 CFR 63.2378(a)]
Which Months: All Year Statistical Basis: None specified
- 145 [40 CFR 63.2378(d)] Ensure that the total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), does not exceed 240 hours. Subpart EEEE. [40 CFR 63.2378(d)]
- 146 [40 CFR 63.2390] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.2390(b) through (e), as applicable. Subpart EEEE.
- 147 [40 CFR 63.2394] Keep records in a form suitable and readily available for expeditious inspection and review according to 40 CFR 63.10(b), including records stored in electronic form at a separate location. Keep files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b). The remaining 3 years may be kept off site. Subpart EEEE.

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EQT 0080 TL-2301 - Condensate Truck Loading

- 148 [LAC 33:III.2107.B] Prevent spills during the attachment and disconnection of filling lines or arms. Equip loading and vapor lines with fittings which close automatically when disconnected, or equip to permit residual VOC in the loading line to discharge into a collection system or disposal or recycling system.
- 149 [LAC 33:III.2107.B] VOC, Total $\geq 90\%$ DRE, using a vapor disposal system.
Which Months: All Year Statistical Basis: None specified
- 150 [LAC 33:III.2107.C] Discontinue loading or unloading through the affected transfer lines when a leak is observed; do not resume loading or unloading until the observed leak is repaired.
- 151 [LAC 33:III.2107.C] Presence of a leak monitored by visual, audible, and/or olfactory during loading or unloading operations.
Which Months: All Year Statistical Basis: None specified
- 152 [LAC 33:III.2107.D] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2107.D.1 and D.2.
- 153 [LAC 33:III.2107.E.1] Determine compliance with LAC 33:III.2107.B using the methods in LAC 33:III.2107.E.1.a through E.1.e, as appropriate.
- 154 [LAC 33:III.2107.E.2] Submit notification: Due to the Office of Environmental Service at least 30 days prior to performing any emission test to afford DEQ the opportunity to conduct a pretest conference and to have an observer present.
- 155 [LAC 33:III.2107.E.3] Submit test results: Due to the Office of Environmental Services within 60 days of test completion.
- 156 [LAC 33:III.509] Shall be controlled by the Condensate Vapor Thermal Oxidizer that meets requirements of 40 CFR 63 Subpart EEEE - Determined as BACT.

FUG 0001 FUG01 - Facility Fugitive Emissions

- 157 [40 CFR 63.2346(c)] All equipment leak components in organic liquids service as described in 40 CFR 63.2338(b)(3) shall comply with the applicable requirements under 40 CFR 63 Subparts TT, or UU, or H. Subpart EEEE. [40 CFR 63.2346(c)]
- 158 [LAC 33:III.2111] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

GRP 0001 GFLRCAPA - Ground Flares Annual CAP

Group Members: EQT 0027EQT 0028EQT 0029EQT 0030

- 159 [40 CFR 64.3(b)(3)] Specific QA/QC Procedures: Calibrate, operate, and maintain instrumentation using procedures that take into account manufacturer's specifications. [40 CFR 64.3(b)(3)]
- 160 [40 CFR 64.6(c)(1)] Presence of a flame monitored by technically sound method continuously. [40 CFR 64.6(c)(1)]
Which Months: All Year Statistical Basis: None specified
- 161 [40 CFR 64.6(c)(2)] An excursion or exceedance is defined as the absence of the flame. [40 CFR 64.6(c)(2)]
- 162 [40 CFR 64.6(c)(2)] Submit Notification: Submit to DEQ within 5 working days upon the establishment or reestablishment of any exceedance or excursion level, for purposes of responding to and reporting exceedances or excursions under 40 CFR 64.7 and 64.8. [40 CFR 64.6(c)(2)]
- 163 [40 CFR 64.6(c)(4)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. [40 CFR 64.6(c)(4)]

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GRP 0001 GFLRCAPA - Ground Flares Annual CAP

- 164 [40 CFR 64.7(a)] Conduct the monitoring required under 40 CFR 64 upon issuance of a part 70 or 71 permit that includes such monitoring, or by such later date specified in the permit pursuant to 40 CFR 64.6(d). [40 CFR 64.7(a)]
- 165 [40 CFR 64.7(b)] Maintain the monitoring required under 40 CFR 64 at all times, including but not limited to maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR 64.7(b)]
- 166 [40 CFR 64.7(c)] Conduct all monitoring required under 40 CFR 64 in continuous operation (or collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments). Do not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of 40 CFR 64, including data averages and calculations, or for fulfilling a minimum data availability requirement, if applicable. Use all the data collected during all other periods in assessing the operation of the control device and associated control system. [40 CFR 64.7(c)]
- 167 [40 CFR 64.7(d)(1)] Restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable upon detecting an excursion or exceedance, in accordance with good air pollution control practices for minimizing emissions. Minimize the period of any startup, shutdown or malfunction, and take any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). [40 CFR 64.7(d)(1)]
- 168 [40 CFR 64.7(e)] Submit written notification: Due to the Office of Environmental Compliance within 72 hours upon identifying a failure to achieve compliance with the emission limitation for which, after approval of monitoring under 40 CFR 64, the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions. If necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. [40 CFR 64.7(e)]
- 169 [40 CFR 64.8(b)] Maintain a written Quality Improvement Plan (QIP) and have it available for inspection. Include initially in the plan procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, modify the plan to include procedures for conducting one or more of the actions specified in 40 CFR 64.8(b)(2)(i) through (b)(2)(v), as appropriate. [40 CFR 64.8(b)]
- 170 [40 CFR 64.8(c)] Develop and implement a Quality Improvement Plan (QIP) as expeditiously as practicable. [40 CFR 64.8(c)]
- 171 [40 CFR 64.8(c)] Submit notification: Notify the DEQ if the period for completing the improvements contained in the Quality Improvement Plan (QIP) exceeds 180 days from the date on which the need to implement the QIP was determined. [40 CFR 64.8(c)]
- 172 [40 CFR 64.8(d)] Make reasonable changes to the Quality Improvement Plan (QIP) as the DEQ requires, upon any determination pursuant to 40 CFR 64.7(d)(2) subsequent to implementation. [40 CFR 64.8(d)]
- 173 [40 CFR 64.9(a)] Submit report: Due on and after the date specified in 40 CFR 64.7(a) by which the owner or operator must use monitoring that meets the requirements of 40 CFR 64. Submit monitoring reports to the DEQ in accordance with 40 CFR 70.6(a)(3)(iii). Include in a report for monitoring under 40 CFR 64, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the information specified in 40 CFR 64.9(a)(2)(i) through (a)(2)(iii), as applicable. [40 CFR 64.9(a)]
- 174 [40 CFR 64.9(b)(1)] Comply with the recordkeeping requirements specified in 40 CFR 70.6(a)(3)(ii). [40 CFR 64.9(b)(1)]

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GRP 0001 GFLRCAPA - Ground Flares Annual CAP

- 175 [40 CFR 64.9(b)(1)] Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Maintain records of monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Maintain these records for a period of at least five years. [40 CFR 64.9(b)(1)]
- 176 [40 CFR 64.9(b)(1)] Monitoring data recordkeeping by electronic or hard copy at the approved frequency. Maintain these records for a period of at least five years. [40 CFR 64.9(b)(1)]
- 177 [LAC 33:III.1105] Opacity <= 20 percent, except for a combined total of six hours in any 10 consecutive day period, for burning in connection with pressure valve releases for control over process upsets. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 178 [LAC 33:III.1105] Submit notification: Due to SPOC as soon as possible after the start of burning of pressure valve releases for control over process upsets. Notify in accordance with LAC 33:I.3923. Notification is required only if the upset cannot be controlled in six hours.
- 179 [LAC 33:III.1311.C] Opacity <= 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 180 [LAC 33:III.509] Both dry gas ground flares (EQT0027 and EQT0028) can only be operated simultaneously 1) during commissioning or 2) if the total gas volume simultaneously flared through both dry gas ground flares doesn't exceed the maximum gas volume from one dry gas ground flare alone.
- 181 [LAC 33:III.509] Both wet gas ground flares (EQT0029 and EQT0030) can only be operated simultaneously 1) during commissioning or 2) if the total gas volume simultaneously flared through both wet gas ground flares doesn't exceed the maximum gas volume from one wet gas ground flare alone.
- 182 [LAC 33:III.509] Shall comply with the following BACT: Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas for SO₂ and VOC; Good Equipment Design/Best Operational Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} <= 2.5 lb/MM scf, NO_X <= 0.0680 lb/MM BTU (HHV), and CO <= 0.310 lb/MM BTU (HHV).
- 183 [LAC 33:III.509] The flares shall have destruction efficiency of => 99% for C1-C3 organic compounds and => 98% for C4+ organic compounds.

GRP 0002 FGSO2CAP - Fuel Gas Fired Sources SO2 CAP

Group Members: EQT 0001EQT 0002EQT 0003EQT 0004EQT 0005EQT 0006EQT 0007EQT 0008EQT 0009EQT 0010EQT 0011EQT 0012EQT 0013EQT 0014EQT 0015EQT 0016EQT 0017EQT 0018EQT 0019EQT 0020EQT 0021EQT 0022EQT 0023EQT 0024EQT 0025EQT 0026EQT 0027EQT 0028EQT 0029EQT 0030EQT 0031EQT 0032EQT 0033EQT 0034EQT 0035EQT 0036EQT 0038EQT 0039EQT 0040EQT 0041EQT 0042

- 184 [LAC 33:III.1513.C] Sulfur dioxide (SO₂) recordkeeping by electronic or hard copy once initially and annually. Record and retain at the site sufficient data for each emission point to demonstrate exemption from LAC 33:III.1503.C.

GRP 0003 AGTOSO2CAP - Acid Gas Thermal Oxidizer SO2 CAP

Group Members: EQT 0021EQT 0022EQT 0023EQT 0024EQT 0025

SPECIFIC REQUIREMENTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

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GRP 0003 AGTOSO2CAP - Acid Gas Thermal Oxidizer SO2 CAP

- 185 [LAC 33:III.1101.B] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. Determine opacity by using Method 9 of 40 CFR Part 60, Appendix A or by using a continuous opacity monitoring system (COMS) meeting the requirements outlined in 40 CFR 60.13(c) and (d).
Which Months: All Year Statistical Basis: None specified
- 186 [LAC 33:III.1311.C] Opacity \leq 20 percent, except for emissions that have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
Which Months: All Year Statistical Basis: Six-minute average
- 187 [LAC 33:III.1513.C] Equipment/operational data recordkeeping by electronic or hard copy once initially and annually. Record and retain at the site sufficient data to show annual potential sulfur dioxide emissions.
- 188 [LAC 33:III.509] Shall comply with the following BACT: Acid gas H₂S minimization and Use of a triazine-based H₂S scavenger system for SO₂; Good Combustion Practices and Use of Low Sulfur Facility Fuel Gas to limit PM₁₀/PM_{2.5} \leq 0.0075 lb/MM BTU and VOC \leq 0.16 lb/MM BTU (HHV); Good Combustion Practices for CO; LNB and Good Combustion Practices for NO_x.

UNF 0001 AI201334 - Driftwood LNG Facility

- 189 [40 CFR 60.] All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.
- 190 [40 CFR 63.] All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A.
- 191 [40 CFR 82.Subpart F] Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B.
- 192 [LAC 33:III.1103] Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensifies an existing traffic hazard condition are prohibited.
- 193 [LAC 33:III.1303.B] Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
- 194 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping includes, but is not limited to, the practices listed in LAC 33:III.2113.A.1 through A.5.
- 195 [LAC 33:III.219] Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- 196 [LAC 33:III.501.C.6] During initial startup, commissioning, and/or shakedown activities (not to exceed 180 days after each liquefaction train commences operations), exceedances of the ppmvd and lb/MM BTU BACT limits shall not be considered violations of this permit or of PSD-LA-824. Total emissions from Driftwood LNG Facility during any 12 consecutive month period that include initial startup, commissioning, and/or shakedown activities shall not exceed the followings (in tons): PM₁₀/PM_{2.5} \leq 356.18; SO₂ \leq 73.61; NO_x \leq 1,969.83; CO \leq 7,581.03; VOC \leq 555.57; CO_{2e} \leq 9,513,442. This specific requirement does not authorize any exceedance of an applicable federal or state standard.
- 197 [LAC 33:III.509] Comply with the requirements of PSD-LA-824. This permit includes provisions of the Prevention of Significant Deterioration (PSD) review from Permit PSD-LA-824.

SPECIFIC REQUIREMENTS

AI ID: 201334 - Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

UNF 0001 AI201334 - Driftwood LNG Facility

- 198 [LAC 33:III.5107.A.2] Include a certification statement with the annual emission report and revisions to any emission report that attests that the information contained in the emission report is true, accurate, and complete, and that is signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature, and phone number of the responsible official.
- 199 [LAC 33:III.5107.A] Submit Annual Emissions Report: Due annually, by the 30th of April unless otherwise directed by DEQ, to the Office of Environmental Services in a format specified by DEQ. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3.
- 200 [LAC 33:III.535] Comply with the Part 70 General Conditions as set forth in LAC 33:III.535 and the Louisiana General Conditions as set forth in LAC 33:III.537. [LAC 33:III.535, LAC 33:III.537]
- 201 [LAC 33:III.5611.A] Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency: Due within 30 days after requested by DEQ.
- 202 [LAC 33:III.5611.B] During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by DEQ to enforce these regulations.
- 203 [LAC 33:III.919] Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 30th of April to the Office of Environmental Services, for the reporting period of the previous calendar year that coincides with period of ownership or operatorship, until released from reporting, in writing, by DEQ. Submit both an emissions inventory and the certification statement required by LAC 33:III.919.F.1.c, separately for each AI, in a format specified by DEQ. To request a release from reporting, submit a completed Request for Release from Emissions Inventory Reporting form (form# 7365) to the Office of Environmental Services.

General Information

AI ID: 201334 Driftwood LNG LLC - Driftwood LNG Facility

Activity Number: PER20170001

Permit Number: 0520-00504-V0

Air - Title V Regular Permit Initial

Also Known As:	ID	Name	User Group	Start Date
	0520-00504	CDS Number	CDS Number	03-30-2017

Physical Location: 1170 Burton Shipyard Rd
Sulphur, LA 70663

Mailing Address: 1201 Louisiana St, Suite 3100
Houston, TX 77002

Related Organizations:	Name	Address	Phone (Type)	Relationship
	Driftwood LNG LLC	1201 Louisiana St Ste 3100 Houston, TX 77002		Operates
	Driftwood LNG LLC	1201 Louisiana St Ste 3100 Houston, TX 77002		Air Billing Party for
	ERM	840 W Sam Houston Pkwy N Ste 600 Houston, TX 77024	2816001001 (WF)	Water Billing Party for
	ERM	840 W Sam Houston Pkwy N Ste 600 Houston, TX 77024	2816001000 (WP)	Provides environmental services for
	ERM	840 W Sam Houston Pkwy N Ste 600 Houston, TX 77024	2816001000 (WP)	Water Billing Party for
	ERM	840 W Sam Houston Pkwy N Ste 600 Houston, TX 77024	2816001001 (WF)	Provides environmental services for

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may email your changes to facupdate@la.gov.

JOHN BEL EDWARDS
GOVERNOR



CHUCK CARR BROWN, Ph.D.
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

SEP 07 2018

Mr. Marshall Olson
Perennial Environmental Services, LLC
13100 Northwest Freeway
Suite 150
Houston, Texas 77040

AI No.: 201334
Activity No.: CER20180001

RE: Driftwood LNG, LLC and Driftwood Pipeline, LLC
Water Quality Certification WQC 180221-01
Corps of Engineers Permit MVN-2016-01501-WII
Coastal Use Permit P20170501
Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes

Dear Mr. Olson:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application to clear, grade, excavate, dredge, and place fill or spoil to construct a natural gas liquefaction and export facility, including marine facilities and install approximately 96-miles of pipeline with necessary compressor stations, meter stations, and interconnects located off Burton Shipyard Road on the west bank of the Calcasieu River between mile markers 22 and 23 in Carlyss, Calcasieu Parish.

The information provided in the application and the additional information received August 22 and September 5, 2018, has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes that the placement of fill will not violate water quality standards as provided for in LAC 33:IX.Chapter 11. Therefore, LDEQ hereby issues Driftwood LNG, LLC and Driftwood Pipeline, LLC Water Quality Certification, WQC 180221-01.

Should you have any questions concerning any part of this certification, please contact Elizabeth Hill at (225) 219-3225 or by email at elizabeth.hill@la.gov. Please reference Agency Interest (AI) number 201334 and Water Quality Certification 180221-01 on all future correspondence to this Department to ensure all correspondence regarding this project is properly filed into the Department's Electronic Document Management System.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Williams".

Scott Williams
Administrator
Water Permits Division

c: IO-W
Corps of Engineers – New Orleans District
Coastal Management Division

From: Brandon Howard - NOAA Federal <brandon.howard@noaa.gov>
Sent: Tuesday, October 23, 2018 10:51 AM
To: abutler@perennialenv.com
Cc: molson@perennialenv.com; Andrew Chartrand <Andrew.Chartrand@tellurianinc.com>
Subject: Re: Driftwood LNG Project

Hi Amy.

Thanks for digging that up. It looks like Twyla had the mitigation plan and all of the information when she reviewed the project and responded. No further consultation on EFH is necessary unless there are substantial changes to the project. I would provide that letter to USACE as well.

Brandon

On Tue, Oct 23, 2018 at 10:45 AM Amy Butler <abutler@perennialenv.com> wrote:

Good morning Brandon,

We discussed the Driftwood LNG Project briefly on the phone last week and I wanted to follow-up with a few additional items. We received the attached letter from Virginia Fay on October 3, 2017 that NMFS concurs with the determination that construction of the Driftwood LNG Project would not result in significant adverse impacts on EFH.

Twyla attended a site visit with LDNR earlier this year to look at the BUDM areas and sent the attached email to James Little at the Army Corps. I have also attached the portion of the Army Corps permit application that describes the avoidance and minimization measures for wetlands on the Project site. The BUDM Plan that was revised in response to Twyla's and other agency comments is too large to send via email; therefore, we will be sending that on an USB drive to your office.

Thank you and please let me know if you have any questions or need any additional information.

Amy Butler

Environmental Project Manager
Perennial Environmental Services, LLC
13100 Northwest Freeway, Ste. 150
Houston, Texas 77040
Office: [REDACTED]
Cell: [REDACTED]

----- Forwarded message -----

From: Marshall Olson <molson@perennialenv.com>

To: Amy Butler <abutler@perennialenv.com>

Cc:

Bcc:

Date: Wed, 17 Oct 2018 14:06:51 +0000

Subject: FW: [Non-DoD Source] Re: Driftwood LNG & Driftwood Pipeline

-----Original Message-----

From: Little, James W Jr CIV USARMY CEMVN (US) [mailto:James.Little@usace.army.mil]

Sent: Thursday, April 05, 2018 4:00 PM

To: Marshall Olson <molson@perennialenv.com>; Amy Butler <abutler@perennialenv.com>

Subject: FW: [Non-DoD Source] Re: Driftwood LNG & Driftwood Pipeline

Marshall/Amy,

Here is the email I got from Twyla (NMFS) for Driftwood. After making the site visit, looking at revised plats and talking with Driftwood and Stream, she had the few comments in her email but thought that a formal comment letter was not warranted at this time due to the fact that Driftwood/Stream are working diligently to finalize the BUDM plan and coordinate it with NMFS, MVN and other agencies. Let me know if you have any questions or need anything.

James W. Little, Jr.

Senior Project Manager

U.S. Army Corps of Engineers

New Orleans District (OD-S)

P. O. Box 44487

Baton Rouge, LA 70804-4487



Baton Rouge

New Orleans

-----Original Message-----

From: Twyla Cheatwood - NOAA Federal [mailto:twyla.cheatwood@noaa.gov]

Sent: Thursday, April 5, 2018 3:39 PM

To: Little, James W Jr CIV USARMY CEMVN (US) <James.Little@usace.army.mil>

Subject: [Non-DoD Source] Re: Driftwood LNG & Driftwood Pipeline

James,

I went in the field with Driftwood on Tuesday and had a chance to look at updated plats. Questions still needing to be answered include the schedule for filling area 8 and 5. Area 5 is deep and is going to need a good bit of material. Assurances on their ability to offset the impacts to EFH and create the marsh planned would help ease concerns. Other than that, the updated plats now show a tidal connection for #5 and language saying access will be maintained throughout the system. On #5, new plats are labeled containment instead of levees, structures are all to be removed, containment is to be gapped, and a culvert is to be placed under the cattle crossing shown as a refurbished levee in the original plats.

Turns out Area 4 is also tidal....but not being used to offset EFH because it is last on the list for the filling schedule?

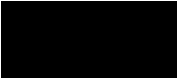
Stream and Perennial have been great to work with on this. I appreciate the coordination between all parties.

Thanks James.

On Thu, Apr 5, 2018 at 2:56 PM, Little, James W Jr CIV USARMY CEMVN (US) <James.Little@usace.army.mil> wrote:

Twyla,

Just checking to see if you will be submitting a comment letter on the Driftwood application? Just got through talking with the agent. They are having an internal meeting next Tuesday with Driftwood and Stream Wetland Services and wanted to be able to discuss all the issues with the BUDM plan. I will be out of the office tomorrow and probably Monday so was wondering if you were sending comments if you could get them to me today so that I could forward them to the agent. Just let me know. Thanks.

James W. Little, Jr.
Senior Project Manager
U.S. Army Corps of Engineers
New Orleans District (OD-S)
P. O. Box 44487
Baton Rouge, LA 70804-4487
 Baton Rouge
New Orleans

--

Twyla H Cheatwood

Fishery Biologist

Southeast Region, Habitat Conservation Division NOAA Fisheries Baton Rouge, LA 70803

Office: [REDACTED]

Twyla.cheatwood@noaa.gov

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Brandon Howard

Fishery Biologist

Habitat Conservation Division

NOAA Fisheries Service

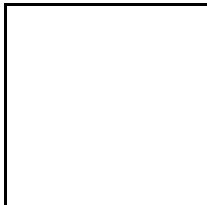
Louisiana State University

Military Sciences Bldg, Rm 266

South Stadium Rd

Baton Rouge, LA 70803

Office: [REDACTED]



Web www.nmfs.noaa.gov

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Twitter www.twitter.com/noaafisheries

YouTube www.youtube.com/usnoaafisheriesgov

APPENDIX H
UNANTICIPATED DISCOVERIES PLAN

Driftwood LNG Facility and Driftwood Pipeline Project

Unanticipated Discoveries Plan

March 2017

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1 Introduction

Driftwood LNG LLC and Driftwood Pipeline LLC (together, DWLNG) are proposing to site, construct, own, and operate a liquefied natural gas (LNG) production and export facility (Facility) on the west bank of the Calcasieu River near Carlyss, Calcasieu Parish, Louisiana. The Driftwood LNG Project (the Facility and the Pipeline collectively, the Project) will include five liquefaction plants capable of producing up to 26 million tonnes per annum (MTPA) of LNG for global export. Natural gas will be delivered to the LNG facility from existing interstate pipeline systems via a proposed new 96-mile pipeline that includes up to 15 meter stations and associated tie-ins at up to 13 sites, and three compressor stations.

The proposed Project consists of:

- A natural gas liquefaction and export facility, including marine facilities to be located along the west bank of the Calcasieu River between mile markers 22 and 23, in Calcasieu Parish, Louisiana; and,
- An approximately 96-mile Pipeline, to deliver natural gas at an annual average of 4 billion cubic feet per day, consisting of:
 - 74 miles of single 48-inch diameter pipeline;
 - 11 miles of single 42-inch diameter pipeline;
 - 11 miles of single 36-inch diameter pipeline;
 - 3.5 miles of 30-inch diameter pipeline lateral;
 - 3 compressor stations; and
 - Up to 15 meter stations and associated tie-ins at up to 13 sites.

The Project has completed a number of environmental studies in preparation for development of this Federal Energy Regulated Commission (FERC) regulated project. However, occasionally unanticipated discoveries are made during construction even after completion of thorough investigations, such as archeological sites, historical sites, paleontological sites, soil or groundwater contamination, or orphaned oil and gas wells. The Project is developing this Unanticipated Discoveries Plan (UDP) to plan for unanticipated discoveries and lay out initial procedures and training.

1.1 Regulatory Background and Authority

The nature of the unanticipated discovery will dictate the state and federal regulations that cover assessment and reporting. The applicable state and federal regulations are:

- Archeological Sites, Historical Sites, Cemeteries, and Unmarked Burials:
 - Chapter 16 – Louisiana Archaeological Resources (R.S. 41:1601-1615), 1975;
 - Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681), 1992;
 - Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943);
 - Secretary of the Interior’s *Standards for Archaeology and Historic Preservation* (48 CFR 44716-42); and

- FERC, Office of Energy Projects: *Guidelines for Reporting on Cultural Resources Investigations for Pipeline Projects*;
- Soil or Groundwater Contamination:
 - Subtitle II of Title 30 of the Louisiana Revised Statutes;
 - Louisiana Department of Environmental Quality (LDEQ's) Risk Evaluation/Corrective Action Program (RECAP); and
 - Louisiana Administrative Code (LAC) Title 33 Chapter 39 (33:1.3919 - *Notification Requirements for Unauthorized Discharges With Groundwater Contamination Impact*)
- Orphaned Oil and Gas Wells:
 - LDEQ's RECAP; and
 - Louisiana Department of Natural Resources, Oilfield Restoration Program;
- Paleontological Sites:
 - No state regulations

1.2 Cultural Resources

Louisiana has state laws protecting both cemeteries and unmarked burials. An unmarked burial includes any location where human remains have been or may be found inadvertently and where there is no surficial evidence of a burial site (i.e., cemetery fence lines, tombstones, grave markers, etc.). This includes all prehistoric or historic Native American burials as well as all early historic-period Euro-American, African-American, and other isolated burials and abandoned cemeteries that are no longer being used for internments or being maintained in good condition.

Unmarked burials are protected by Chapter 10 – Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671-681) and cemeteries are protected by Chapter 21-B – Louisiana Historic Cemetery Preservation Act (R.S. 25:931-943). Both laws outline the reporting protocol in the event an unmarked grave, burial, or historic cemetery is discovered; and establish the office of the Louisiana State Archaeologist (State Historic Preservation Officer, SHPO) as the regulator in charge of these cultural resources.

1.3 Soil or Groundwater Contamination

LDEQ's RECAP rules have been promulgated and became final on October 20, 2003. This regulation establishes the LDEQ's minimum remediation standards for present and past uncontrolled constituent releases. RECAP is a consistent decision-making process for the assessment of, and the response to, environmental contamination that is based on the protection of human health and the environment.

1.4 Orphaned Oil or Gas Wells

Subtitle II of Title 30 of the Louisiana Revised Statutes contains the state regulations governing protection of human health and the environment. LDEQ's RECAP program provides guidelines for assessing and remediating releases of hazardous materials to the environment. The Louisiana Oilfield Site Restoration Program was created in 1993 within the Louisiana Department of Natural Resources to address unrestored orphaned oilfield sites. The specific focus of the program is to properly plug and abandon orphan wells in addition to properly restore the site. Potential contamination associated with wells should be handled in accordance with the soil and groundwater contamination requirements.

2 Unanticipated Discovery Procedures

UDP procedures have been developed for unanticipated discoveries associated with Project construction. A flow chart illustrating the specific protocols for the soil and groundwater sites and cultural resources is provided as a quick reference to be used during training (

Figure and 2). A summary of the protocols for each discovery type is discussed below.

2.1 Unanticipated Discovery Procedure Training

UDP training will be provided to Project staff and contractors tasked with supervising or overseeing ground disturbing activities during pre-construction, construction, operation, and decommissioning phases of the Project lifecycle.

The training will include the following elements:

- Applicable local, state, and federal legislation and requirements;
- Overview of the known resources within the Project area and its immediate vicinity, as it relates;
- The training will include hazard identification and worker protection;
- Introduction to in-field identification of unanticipated discoveries; and
- The protocols to be followed and notification requirements in the event an unanticipated discovery is made during Project activities.

UDP training will be incorporated into the onboarding training for appropriate Project and contractor staff.

2.2 Cultural Resources

2.2.1 Cultural Finds or Sites

For purposes of the UDP, archaeological material is defined as any prehistoric or historic object (artifact), feature, structural remains, or landscape modification. Examples include but are not limited to the following:

- Prehistoric artifacts such as projectile points/arrowheads, pottery sherds, shell, stone tools, cooked or modified animal bone, or chipped stone;
- Historic artifacts such as pottery sherds, window or bottle glass, nails, bricks and mortar, or cut stone;
- A cluster or concentration of prehistoric or historic artifacts;
- Features such as soil stains, trash pits, fire pits/hearths, post molds, earthen mounds; and
- Building ruins such as stone, brick, or concrete foundations, piers, concrete slabs, or other structural remains.
- Body fossils (fossilized remains of ancient organisms) and trace fossils (impressions made on a substrate by ancient organisms).

Prior to construction of the Project, the site owner will name a Site Manager who will be responsible for daily supervision of construction and is expected to be present on site during all phases of construction. The following general procedure is to be executed if archaeological material is discovered by any Project staff or contractor during Project activities:

1. Construction activity within a 10-foot buffer of the discovery will be stopped immediately.
2. The Site Manager will be informed of any find or sites identified. The Site Manager will then contact the Project health, safety and environmental (HSE) representative for the area. All remains or materials will be left in place for further evaluation.
3. The HSE representative will contact the Site Manager and supervise installation of site protective measures. The Site Manager will contact the owner representative.
4. The Site Manager will secure the area around the discovery and protective measures will be put in place to prevent any damage, loss, or removal of objects or features.
5. The owner representative will contract with an appropriate cultural resource specialist to document the discovery and a determination will be made of the need for additional examination in consultation with appropriate parties.
6. The owner representative will notify FERC, SHPO, Native American Tribes, Louisiana Division of Archeology (LDA) and other authorities that have expressed interest, as required.
7. Depending on the results of the professional assessment of the find, the SHPO will determine its research potential, and/or NRHP eligibility. If the find lacks research potential or is determined to be ineligible for listing on the NRHP, resumption of construction may be allowed, with continued monitoring during construction activities as may be appropriate (as in the case where new data suggests that the likelihood of additional finds is moderate to high). In such case, the cultural research specialist will remain on site for the duration of any operations that may expose or damage cultural resources. The cultural research specialist will have the opportunity to collect further information during construction by means of photographs and various measurements, staying in contact with the SHPO throughout the evaluation process. If, at the end of such monitoring, and in consultation with the SHPO, the resources are determined to be ineligible for NRHP listing, the cultural research specialist will submit to the Project, the SHPO, FERC, and interested Native American tribes a formal data recovery and mitigation plan.

If the find is determined as eligible or potentially eligible for NRHP listing, the Site Manager, in consultation with the owner representative, will initiate the necessary mitigations (Phase II testing or Phase III data recovery).

8. No work that could result in impacts to the discovery will proceed until required mitigations are implemented and, where applicable, the appropriate regulatory agencies have given clearance for work to proceed.
9. If the discovery includes potential human remains or unmarked burial sites, the procedures in the section below should be followed.

2.2.2 Human Remains and Unmarked Burials

The probability of encountering human remains in the Project area is low; however, in the event that an unmarked burial, including human remains, are encountered during construction on privately owned or other non-federally owned lands, the following plan outlines the specific procedures to be followed.

These procedures meet or exceed the requirements of the Louisiana Unmarked Human Burial Sites Preservation Act (Act 1991, No. 704, §1, effective January 1, 1992). Should any human remains or other associated cultural objects be encountered on federal lands, the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) will be followed with the responsible Federal official being contacted immediately upon discovery for further instruction. However, no Federal lands are currently proposed to be affected by the Project.

1. If an unmarked burial is encountered during construction, the Site Manager shall notify the Project representative and HSE representative, the law enforcement agency, and the coroner of the jurisdiction where the site or remains are located, the SHPO, the FERC, and the state archeologist acting on behalf of the Unmarked Burial Sites Board within 24 hours of discovery. The cultural resource specialist will also be contracted to assist with identifying the remains.
2. If the coroner finds that the unmarked burial site is over 50 years old and that there is no need for a legal inquiry by his office or for a criminal investigation, the SHPO shall have jurisdiction of the site, human skeletal remains, and the burial artifacts. The disposition of unmarked burial sites, human skeletal remains, or burial artifacts shall proceed as follows:
 - i. Every reasonable effort will be made to restore the unmarked burial site and to avoid disturbing the human skeletal remains or burial artifacts;
 1. If the SHPO determines that the burial site has significant scientific value, the SHPO may issue a permit for scientific study.
 2. Any agreement by the owner of the property to leave the unmarked burial site undisturbed shall constitute consent on the owner's part to allow relatives of the deceased or any other interested parties free access to the site without the owner's permission.
 - ii. The Project representative, in coordination with the SHPO shall make reasonable efforts to identify and locate persons who can establish direct kinship with or descent from the individual whose remains have been found.
 - iii. If the unmarked burial site or the human skeletal remains can be shown to have ethnic affinity with a living Native American tribe, the Project representative will notify the tribe of the discovery.
 - iv. If the human skeletal remains must be removed, then control of the disposition of these remains will be in the following order:
 1. If any direct relations or descendants are found, such person or persons will have the right to control the disposition of the human skeletal remains.
 2. If the human skeletal remains can be shown to have ethnic affinity to any living tribe of Native Americans, then the tribe will have control of the disposition of the human skeletal remains.
 - b. If no direct relation or descendant is found, or if no ethnic affinity of the human skeletal remains to any living Native American tribe can be shown, or if no direct relation or descendant or Native American tribe takes responsibility for the re-interment of the human remains, then the SHPO shall determine the proper disposition of the human remains.
3. If a permit has been issued pursuant to R.S. 8:676(A)(6), the cost of disinterment, re-interment, or study of the human skeletal remains shall be paid by the Project, or their agent.

4. All burial artifacts found in an unmarked burial site shall become the property of the state and the SHPO shall be the custodian thereof. The disposition of the burial artifacts shall be made by the SHPO in accordance with its regulations. The SHPO may donate the burial artifacts to an educational institution, a public museum, or a Native American tribe for display and study purposes. In no event, however, shall the SHPO or any recipient sell the burial artifacts.

2.3 Other Finds or Discoveries

Project works may uncover other man-made artifacts which are not of historic, cultural, or archaeological significance. As previously stated these additional discoveries include orphaned oil and gas wells and contaminated soils and groundwater. For the purposes of the UDP, “contaminated soils/sediments” is defined as any medium (including surface soil, sediment associated with water bodies, subsurface soil, surface water and groundwater) that, while engaged in Project construction activities, is identified as having indicators of chemical contamination.

These indicators may include:

- Buried drums or containers, rusted or in otherwise poor condition
- Stained or discolored soil (in contrast to adjoining materials)
- Spoil material containing debris other than obvious inert construction material
- Chemical or hydrocarbon odors emanating from excavations
- Visible sheen or other discoloration on surface water or groundwater
- Structures such as pipelines or underground storage tanks

The following procedure is to be executed if the presence of contaminated media is suspected or discovered by a Project staff or contractor during Project construction activities:

1. Construction activity within a 10-foot buffer around the discovery will be stopped immediately.
2. The Site Manager will be informed of the discovery. The Site Manager will then contact the HSE representative for the area. All contaminated media or exposed orphaned wells will be left in place.
3. The HSE representative will coordinate with the Site Manager. The Site Manager will contact the owner representative.
4. The Site Manager will, if safe to do so, secure the area around the discovery and install protective measures such as flagging or barrier tape to prevent unauthorized entry into the exclusion zone and personnel contact with contaminated media or exposed oil and gas well.
5. If warranted, the owner representative will notify the FERC, the LDEQ, the local parish emergency response contact, and other authorities within 7 days, as required, for contaminated media. For reported unanticipated orphaned oil and gas wells, the Project will contact the Louisiana Department of Natural Resources.
6. Upon notification, the HSE representative will perform or direct a hazard assessment to determine appropriate control measures to be implemented that may include sampling breathing zone ambient air, soil, soil gas, sediment, groundwater, and/or wipe samples of

infrastructure or debris. Samples should be analyzed against the appropriate RECAP site screening standard.

7. The owner representative will contract with an appropriate environmental and/or emergency response specialist to put measures in place based on results of the screening.
8. If potentially contaminated soil or groundwater reaches (or has the potential to reach) surface waters, then the measures set forth in the Project Spill Prevention, Control and Countermeasures Plan shall be followed.
9. No work that could disturb contaminated media will proceed until required mitigations and/or cleanup are implemented and, where applicable, the appropriate regulatory authorities have given clearance for work to proceed.
10. Upon evaluation of emergency response actions and sampling results, additional notifications may be made to coordinate further measures to be implemented in the contaminated area to protect personnel and the environment and resume activities in a safe, environmentally compliant manner. Measures may include additional personal protective equipment, segregation of contaminated media, and treatment or off-site disposal of contaminated media.
11. Identification, delineation, characterization, handling, labeling, storage, manifesting, transportation, record keeping, and disposal of potentially contaminated media shall be conducted in accordance with applicable federal, state and local regulations and guidance.

Figure 1. Cultural Resource Response Protocols

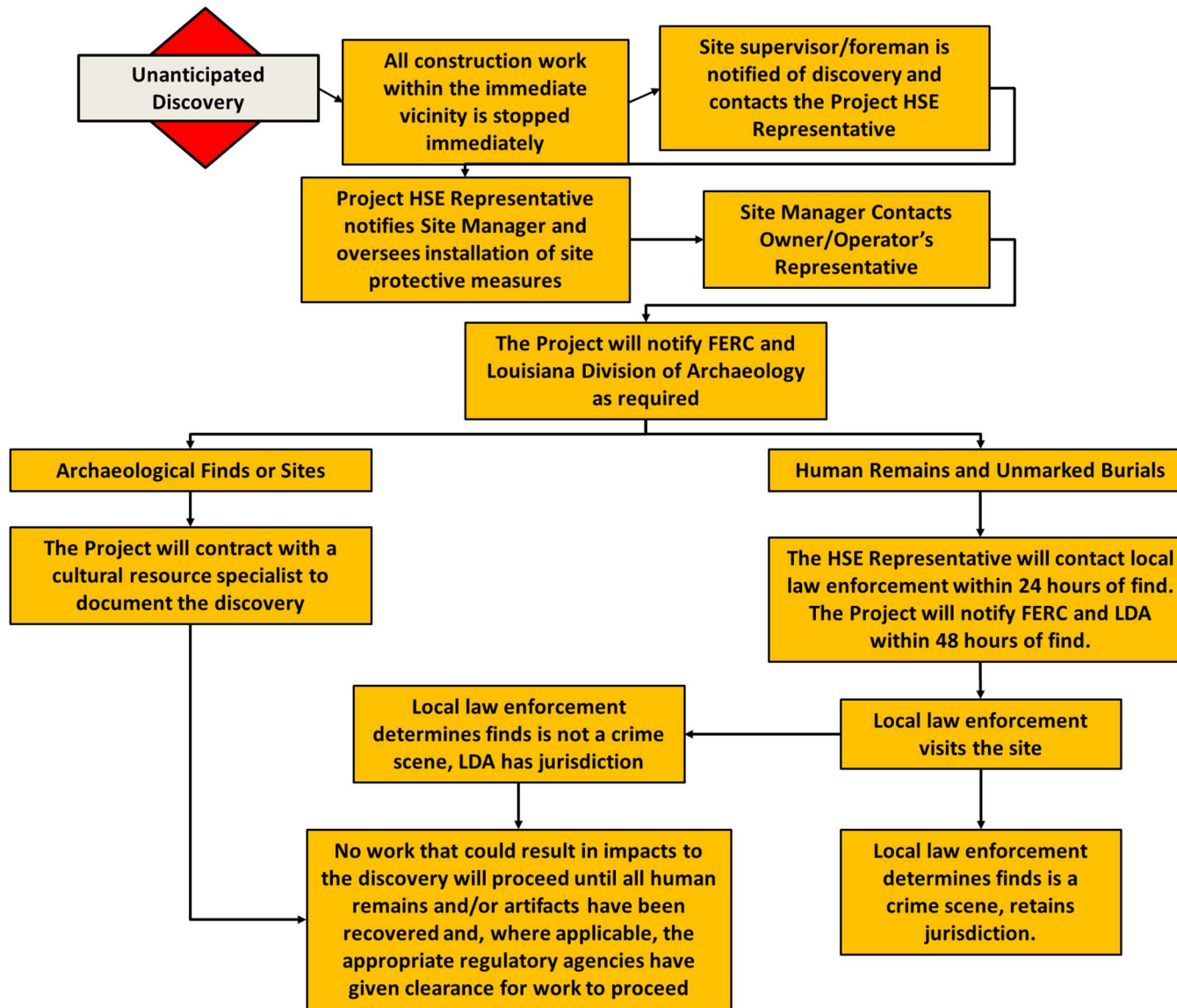
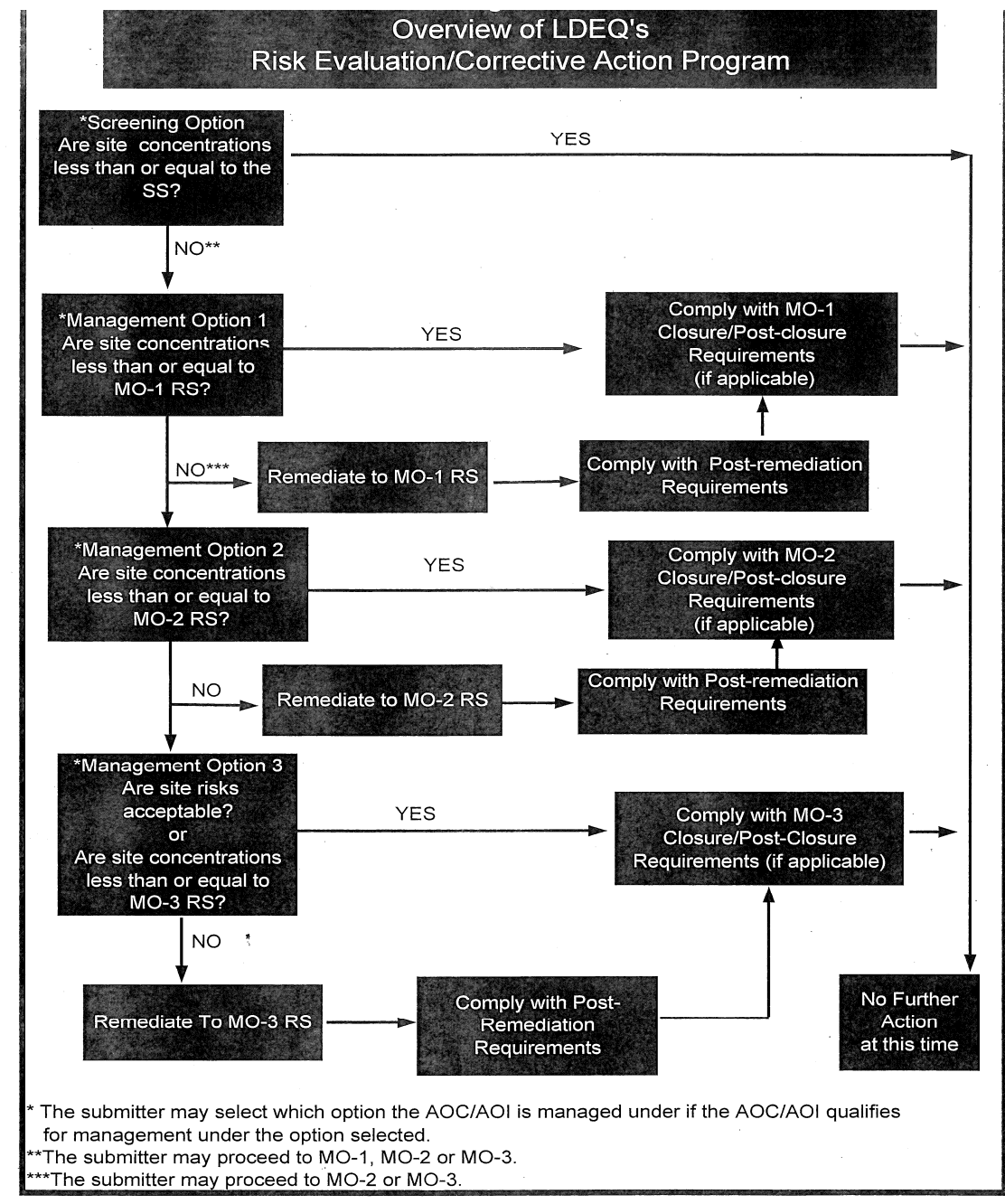


Figure 2. Contaminated Soils and Groundwater Response Protocols



3 Key Stakeholders

In the event of an unanticipated discovery, the key stakeholders and/or agency officials listed below should be contacted consistent with the steps outlined above.

FERC Contact

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APPENDIX I
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APPENDIX H

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TRC Environmental Corporation is a third-party contractor assisting the Commission staff in reviewing the environmental aspects of the project application and preparing the environmental documents required by NEPA. Third-party contractors are selected by Commission staff and funded by project applicants. Per the procedures in 40 CFR 1506.5(c), third-party contractors execute a disclosure statement specifying that they have no financial or other conflicting interest in the outcome of the project. Third-party contractors are required to self-report any changes in financial situation and to refresh their disclosure statements annually. The Commission staff solely directs the scope, content, quality, and schedule of the contractor's work. The Commission staff independently evaluates the results of the third-party contractor's work and the Commission, through its staff, bears ultimate responsibility for full compliance with the requirements of NEPA.

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