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ANR Pipeline Company
Great Lakes Transmission Limited Partnership

Docket No. CP20-484-000
CP20-485-000

Alberta Xpress and Lease Capacity Abandonment Projects

Environmental Assessment

Washington, DC 20426

TABLE OF CONTENTS

A. PROPOSED ACTION	1
1.0 Introduction.....	1
2.0 Project Purpose and Need.....	2
3.0 Scope of this Environmental Assessment.....	4
4.0 Public Review and Comment	4
5.0 Land Requirements.....	5
5.1. Aboveground Facilities	5
5.2. Access Roads.....	6
6.0 Construction Schedule.....	7
7.0 Construction and Operation Procedures.....	7
8.0 Non-Jurisdictional Facilities.....	8
9.0 Permits and Consultations	9
B. ENVIRONMENTAL ANALYSIS	11
1.0 Geology.....	11
1.1. Mineral Resources.....	11
1.2. Geologic Hazards	12
2.0 Soils	14
2.1. Prime Farmland.....	14
2.2. Erosion and Revegetation	14
2.3. Soil Contamination.....	15
3.0 Water Resources	16
3.1. Groundwater Resources	16
3.2. Surface Water Resources	18
3.3. Hydrostatic Testing and dust control	20
4.0 Vegetation and Wildlife	20
4.1 Vegetation.....	20
4.2. Wildlife.....	22
4.3. Special Status Species	26
5.0 Land Use, Recreation, and Visual Resources.....	27
5.1. Land Use	27
5.2. Residential Areas.....	29
5.3. Planned Development	30
5.4. Recreation, Public Interest Areas, and Special Land Use Areas	30
5.5. Hazardous Waste Sites	30
5.6. Visual Resources	30
6.0 Cultural Resources.....	31
6.1. Area of Potential Effect.....	31
6.2. Cultural Resources Investigation	32
6.3. Tribal Consultation.....	32
6.4. Unanticipated Discoveries Plan	33

6.5.	Compliance With the National Historic Preservation Act.....	33
7.0	Socioeconomics.....	33
7.1.	Employment.....	34
7.2.	Transportation.....	34
7.3.	Housing.....	36
7.4.	Public Services.....	36
7.5.	Economy and Tax Revenue.....	37
7.6.	Environmental Justice.....	38
8.0	Air Quality.....	41
8.1	Existing Environment.....	41
8.2	Regulatory Requirements.....	42
8.3	State Air Quality Regulations.....	43
8.4	Construction Emissions Impacts and Mitigation.....	44
8.5	Operational Emissions Impacts and Mitigation.....	45
9.0	Noise.....	47
9.1.	Federal Noise Regulations.....	48
9.2.	Construction Noise Impacts and Mitigation.....	48
9.3.	Operation Noise Impacts and Mitigation.....	50
10.0	Reliability and Safety.....	53
10.1.	Safety Standards.....	53
10.2.	Emergencies.....	54
11.0.	Cumulative Impacts.....	55
11.1.	Soils.....	59
11.2.	Water Resources.....	59
11.3.	Vegetation and Wildlife.....	60
11.4.	Land Use.....	60
11.5.	Socioeconomics.....	61
11.6.	Air Quality.....	62
11.7.	Noise.....	65
C.	ALTERNATIVES.....	66
1.0.	No-Action Alternative.....	66
2.0.	System Alternatives.....	66
3.0.	Site Alternatives.....	68
D.	CONCLUSIONS AND RECOMMENDATIONS.....	70
E.	REFERENCES.....	75
F.	LIST OF PREPARERS.....	79

FIGURES

Figure 1 Project Overview Map.....	3
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TABLES

Table 1	Summary of Land Requirements Associated with the Alberta XPress Project	5
Table 2	Anticipated Environmental Permits, Reviews, and Consultations for the Project	9
Table 3	Summary of Land Use Impacts for the Alberta XPress Project.....	28
Table 4	Existing Socioeconomic Characteristics in the Project Area.....	34
Table 5	Traffic Counts and Average Daily Round Trips Estimates for Construction Work	35
Table 6	Existing Public Services and Facilities in the Vicinity of the Alberta XPress Project Area	37
Table 7	Minority Populations and Poverty Levels within 1 mile of the Alberta XPress Project Area	39
Table 8	Construction Emissions for the Project	44
Table 9	Proposed Emissions at the Turkey Creek Compressor Station	46
Table 10	Air Quality Modeling Results	47
Table 11	Noise Analysis for Nighttime Construction at the Turkey Creek Compressor Station.....	49
Table 12	Noise Analysis for Operations at the Turkey Creek Compressor Station.....	51
Table 13	Noise Analysis for Venting Events at the Turkey Creek Compressor Station .	52
Table 14	Geographic Scope of Potential Impact of the Project	56
Table 15	Past, Present, and Reasonably Foreseeable Projects Considered in the Cumulative Impacts Analysis for the Grand Chenier XPress Project.....	58
Table 16	Analysis of Combined Modeling and Background Concentrations for the Turkey Creek Compressor Station, CS 760, Chicot Compressor Station, and CS-03	64

APPENDICES

Appendix A	Site Location Map
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TECHNICAL ACRONYMS AND ABBREVIATIONS

APE	area of potential effect
ANR	ANR Pipeline Company
BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BMP	best management practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
Cleco Inc.	Cleco Corporate Holdings, LLC
CFR	Code of Federal Regulations
CO	carbon monoxide
Commission	Federal Energy Regulatory Commission
CO ₂	carbon dioxide
CO _{2e}	carbon dioxide equivalent
dBA	decibels on the A-weighted scale
DOT	U.S. Department of Transportation
EA	environmental assessment
ECS Plan	Environmental Construction Standards Plan
ESA	Endangered Species Act
EI	environmental inspector
EO	Executive Order
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FWS	U.S. Fish and Wildlife Service
g	Gravity
GHG	greenhouse gas
GIS	Geographic Information Systems
GWP	global warming potential
HAP	hazardous air pollutant
hp	Horsepower
HUC	Hydrologic Unit Code
L _{eq}	24-hour equivalent sound level
L _{dn}	day-night sound level
LDNR	Louisiana Department of Natural Resources
LDWF	Louisiana Department of Wildlife and Fisheries
MBTA	Migratory Bird Treaty Act
MLV	Mainline Valve

MMBtu	million British Thermal Units
MP	Milepost
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGA	Natural Gas Act
NSA	Noise sensitive areas
NSPS	New Source Performance Standards
NOI	<i>Notice of Intent to Prepare an Environmental Assessment for the Proposed Alberta Xpress and Lease Capacity Abandonment Projects and Request for Comments on Environmental Issues</i>
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NSA	noise sensitive area
OEP	Office of Energy Projects
PM _{2.5}	particulate matter less than or equal to 2.5 microns in aerodynamic diameter
PM ₁₀	particulate matter less than or equal to 10 microns in aerodynamic diameter
Plan	<i>FERC's Upland Erosion Control, Revegetation, and Maintenance Plan</i>
Procedures	<i>FERC's Wetland and Waterbody Construction and Mitigation Procedures</i>
Project	Alberta Xpress Project
Projects	Alberta Xpress Project and Lease Capacity Abandonment Project
PSD	Prevention of Significant Deterioration
Sabine Pass	Sabine Pass Liquefaction, LLC
Secretary	Secretary of the Commission
SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
SONRIS	Strategic Online Natural Resource Information System
SEML	Southeast Mainline
SPCC Plan	Spill Prevention, Containment, and Countermeasures Plan
Tourmaline	Tourmaline Oil Marketing Corp.
USACE	U.S. Army Corps of Engineers
USGS	U. S. Geological Survey
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compounds

A. PROPOSED ACTION

1.0 INTRODUCTION

On June 22, 2020, ANR Pipeline Company (ANR) and Great Lakes Gas Transmission Limited Partnership, filed applications with the Federal Energy Regulatory Commission (FERC or Commission) in Docket Nos. CP20-484-000 and CP20-485-000, respectively, for authorization under section 7(c) and 7(b) of the Natural Gas Act (NGA)¹ to construct and operate certain natural gas facilities in Evangeline Parish, Louisiana and to abandon lease capacity. The proposed projects are known as the Alberta Xpress Project and Lease Capacity Abandonment Project.

We² prepared this environmental assessment (EA) in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality's (CEQ) regulations for implementing NEPA (Title 40 of the Code of Federal Regulations [CFR], Parts 1500-1508 [40 CFR 1500-1508])³, and the Commission's regulations for implementing NEPA (18 CFR 380). The assessment of environmental impacts is an important and integral part of the Commission's decision-making process. As such, we prepared this EA to assess the environmental impacts that would likely occur as a result of the proposed projects. We have developed and incorporated measures into this EA that we believe would appropriately and reasonably avoid, minimize, or mitigate environmental impacts associated with the projects' activities.

CP20-484-000

ANR proposes to construct the Alberta Xpress Project (Project) in accordance with section 7(c) of the NGA, which consists of one new compressor station (Turkey Creek Compressor Station) and modifications to an existing mainline valve (MLV) in Evangeline Parish, Louisiana. The Turkey Creek Compressor Station would include the following facilities:

- one 15,900 ISO horsepower (hp) gas-fired turbine compressor unit;
- three inlet filter separators;
- three discharge gas cooling bays;
- 36-inch-diameter suction and discharge piping;
- 16-inch-diameter cold recycle valves and piping;

¹ Title 15 of the U.S. Code, section 717(b)(c) (2018).

² "We," "us," and "our" refer to the environmental staff of the Office of Energy Projects.

³ On July 16, 2020, CEQ issued a final rule, *Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act* (Final Rule, 85 Fed. Reg. 43,304), which was effective as of September 14, 2020; however, the NEPA review of this project was in process at that time and was prepared pursuant to the 1978 regulations.

- 16-inch-diameter unit control valve and bypass piping; and
- related appurtenant facilities.

All piping (1,000 feet of aboveground and 4,000 feet of below ground) would be within the yard for the proposed compressor station. The general location for the Project is shown in figure 1. Appendix A includes a U.S. Geological Survey (USGS) topographic map and detailed location map of the Project.

CP20-485-000

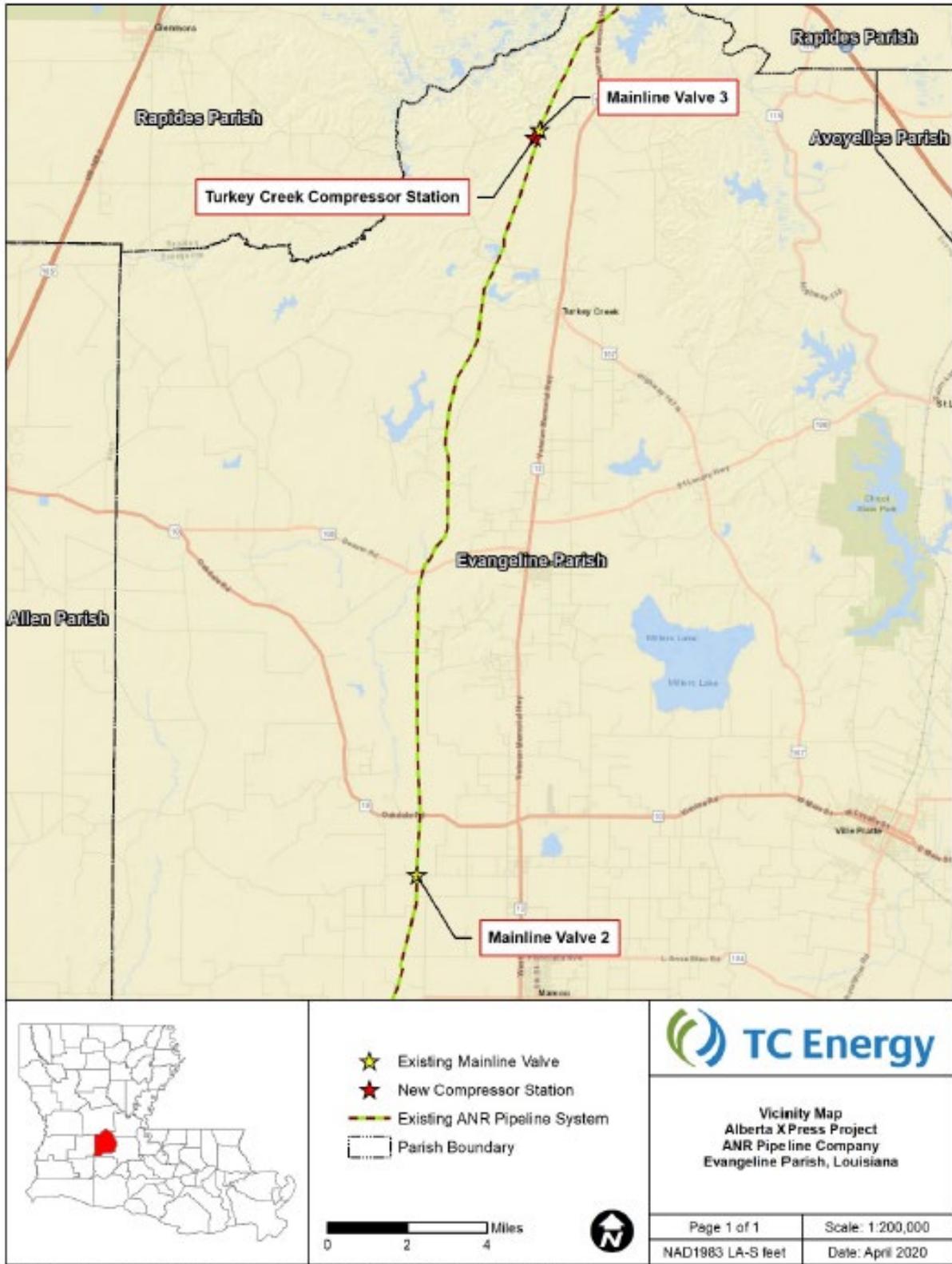
Great Lakes Gas Transmission Limited Partnership proposes to abandon firm capacity by a lease agreement with ANR in accordance with section 7(b) of the NGA. Because this abandonment of firm capacity by lease agreement involves no construction or ground disturbance, no environmental impacts are anticipated. Furthermore, the proposed abandonment qualifies as a categorical exclusion under 18 CFR 380.4(b)(29). Therefore, no further environmental analysis associated with CP20-485-000 is necessary.

2.0 PROJECT PURPOSE AND NEED

ANR states that construction and operation of its new Turkey Creek Compressor Station would provide Sabine Pass Liquefaction, LLC (Sabine Pass) and Tourmaline Oil Marketing Corp. (Tourmaline) with access to reliable sources of natural gas supplies between ANR's Southeast Mainline (SEML) 501 and 1-501 Loop pipelines. ANR proposes to provide 140 million cubic feet per day and 25 million cubic feet per day of firm transportation service, respectively, to Sabine Pass and Tourmaline.

The Commission is an independent regulatory agency and conducts a complete independent review of project proposals, including an environmental review of the proposed facilities. Under Section 7(c) of the NGA, the Commission determines whether interstate natural gas transportation facilities are in the public convenience and necessity and, if so, grants a Certificate of Public Convenience and Necessity to construct and operate them. Section 7(b) of the NGA specifies that no natural gas company shall abandon any portion of its facilities subject to the Commission's jurisdiction without the Commission first finding that the abandonment would not negatively affect the present or future public convenience and necessity. The Commission bases its decisions on both economic issues, including need, and environmental impacts.

Figure 1 Project Overview Map



3.0 SCOPE OF THIS ENVIRONMENTAL ASSESSMENT

The topics addressed in this EA include geology, soils, groundwater, surface waters, wildlife, vegetation, species of special concern, land use, recreation, visual impacts, socioeconomics, cultural resources, air quality, noise, reliability and safety, cumulative impacts, and alternatives. This EA describes the affected environment as it currently exists and the environmental consequences of the Project and compares the Project's potential impact with that of various alternatives. This EA also presents our recommended mitigation measures. As stated above, this portion of the environmental analysis does not include the Lease Capacity Abandonment Project as it is categorically excluded from further analysis under 18 CFR 380.4(b)(29).

As the lead federal agency for the Project, FERC is required to comply with section 7 of the Endangered Species Act (ESA), as amended, and section 106 of the National Historic Preservation Act. These statutes have been considered in the preparation of this EA. In addition to FERC, other federal, state, and local agencies may use this EA in approving or issuing permits for all or part of the Project. Permits, approvals, and consultations for the Project are discussed in section A.9 of this EA.

4.0 PUBLIC REVIEW AND COMMENT

On July 20, 2020, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Alberta Xpress and Lease Capacity Abandonment Projects and Request for Comments on Environmental Issues* (NOI). The NOI was sent to affected landowners; federal, state, and local government representatives and agencies; elected officials; Native American tribes; other interested parties; and local libraries and newspapers. Comments were requested from the public on specific concerns about the Project or environmental issues that should be considered during the preparation of the EA.

The Commission received comments from the Louisiana Department of Wildlife and Fisheries (LDWF) and Choctaw Nation of Oklahoma in response to the NOI. The LDWF stated no impacts on rare, threatened, or endangered species or critical habitats are anticipated from the proposed Project (see section B.4.2 for further information on wildlife). The Choctaw Nation of Oklahoma requested information on cultural resources investigations for the Project, which was provided (see section B.5.3 for further information on cultural resources).

5.0 LAND REQUIREMENTS

Construction of the proposed ANR facilities would disturb 23.7 acres of land, of which ANR would permanently impact 12.3 acres by facility operation. The compressor station would be fenced, and land within the permanent footprint would be covered by gravel, asphalt, or concrete. The remaining acreage is outside of the proposed permanent facility and would be utilized as temporary workspace during construction of the Project for staging, parking, and storage of construction equipment and materials. ANR would restore this temporary workspace following construction and allow it to revert to former uses. No contractor yards or additional staging areas are proposed for this Project. A new permanent truck crossing would be constructed directly over a portion of ANR’s existing pipeline and within its existing right-of-way southwest of the compressor station fenceline. The truck crossing is necessary to handle the weight of heavy equipment crossings. Land requirements are summarized in table 1 below and include ANR’s existing pipeline and proposed permanent truck crossing.

Table 1		
Summary of Land Requirements Associated with the Project		
Facility	Land Affected During Construction (acres) ^a	Land Affected During Operation (acres) ^b
Turkey Creek Compressor Station ^c	23.2	12.3
Mainline Valve 2 ^d	0.2	0.0
Mainline Valve 3 ^d	0.3	0.0
Project Total	23.7	12.3
^a Land affected during construction is inclusive of operation impacts (permanent). ^b Land affected during operation consists only of new permanent impacts. ^c Construction and operational impacts for the Turkey Creek Compressor Station also include the land permanently affected by the new truck crossing located southwest outside of the compressor station. ^d Project activities would occur predominately within the existing MLV facilities. ANR proposes some workspace outside of the MLV fence line to support facility modifications.		

5.1. ABOVEGROUND FACILITIES

The Project’s aboveground facilities include one new compressor station on land that ANR proposes to acquire in Evangeline Parish, Louisiana. ANR’s acquisition of the Turkey Creek Compressor Station is still pending; however, a signed option agreement has been recorded to purchase the property. The new Turkey Creek Compressor Station would include one 15,900 ISO-rated hp gas-driven compressor unit, gas coolers, filter separators, a 36-inch-diameter cold recycle valve and piping, 16-inch-diameter unit control valve and bypass piping, and other related appurtenant facilities. ANR would install fencing around the compressor station.

ANR would connect the Turkey Creek Compressor Station with its existing SEML 501 Mainline and 1-501 Loop Line by installing new 36-inch-diameter suction and discharge lines. The suction/discharge lines and other piping, would total approximately 5,000 feet, including approximately 1,000 feet of aboveground piping and approximately 4,000 feet of below ground piping.

ANR proposes to modify one of two existing MLVs (MLV 2 or MLV 3) to facilitate blowdowns on ANR's existing 501 pipelines to accommodate operation of the new Turkey Creek Compressor Station in Evangeline Parish, Louisiana. ANR has identified MLV 3 as the preferred blowdown location due to its proximity to the proposed Turkey Creek Compressor Station and distance from noise sensitive areas. Although impacts due to work at both MLV 2 and 3 are analyzed throughout the EA, ANR would only need to conduct a blowdown at one site for the Turkey Creek Compressor Station and the MLV site would be selected during construction. Blowdowns would occur during construction only and would last approximately 3 hours each and would be conducted between 7:00 am and 7:00 pm. Blowdowns cover a range of venting activities, including full station blowdowns for maintenance or testing individual compressor unit blowdowns for maintenance, testing, or startup/shutdown. Construction activities associated with the existing MLV would occur within previously disturbed areas at the existing valve settings and within or directly adjacent to ANR's existing 50-foot-wide permanent right-of-way and would not require an expansion of the existing facilities.

5.2. ACCESS ROADS

ANR proposes to install a permanent truck crossing southeast and outside of the new Turkey Creek Compressor Station and across ANR's existing permanent right-of-way. This permanent truck crossing would facilitate the safe passage of heavy machinery and equipment across ANR's existing 501 pipelines for the Turkey Creek Compressor Station. ANR would utilize its existing permanent right-of-way for temporary access to the truck crossing location during construction. Land affected during construction and operation of the permanent truck crossing, including the portion of ANR's existing right-of-way which would be utilized for temporary access, is accounted for in the construction and operation impact acreages for the Turkey Creek Compressor Station presented above.

ANR would use existing public roadways (Onyx Road and Bond Road) and existing ANR 501-line right-of-way to access the new Turkey Compressor Station and existing MLV 2 and 3. No improvements or modifications to Onyx Road or Bond Road would be required as part of the Project. ANR proposes to install two new access roads from the existing public roadways to the new Turkey Creek Compressor Station. Roads and parking areas would be constructed using gravel, asphalt, or concrete, as appropriate. Impacts associated with the access roads are discussed in section 4.1.

Although ANR has identified areas where workspace would be required, additional or alternative areas could be identified in the future due to changes in site-specific construction requirements. ANR would be required to file information on each of those areas for review and approval by FERC's Director of the Office of Energy Projects (OEP), or the Director's designee, and any other permitting/authorizing agencies with jurisdiction, prior to use.

6.0 CONSTRUCTION SCHEDULE

ANR anticipates construction of the Project facilities would commence by September 2021 with an in-service date of November 1, 2022.

7.0 CONSTRUCTION AND OPERATION PROCEDURES

ANR would design, construct, test, operate, and maintain the proposed facilities to conform with or exceed federal, state, and local requirements, including the U.S. Department of Transportation's (DOT) Minimum Safety Standards in 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and the Commission's regulations at 18 CFR 380.15, *Siting and Maintenance Requirements*.

During construction and restoration of the Project, ANR would implement the measures contained in the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan (Plan)*⁴ and *Wetland and Waterbody Construction and Mitigation Procedures (Procedures)*,⁵ in addition to other federal, state, and local permit requirements. ANR would also implement the measures contained in its following plans:⁶

- Spill Prevention, Containment, and Countermeasures Plan (SPCC Plan);
- Waste Management Plan;
- Plan for the Unanticipated Discovery of Contaminated Environmental Media;
- Plan for the Unanticipated Discovery of Historic Properties and Human Remains During Construction;
- Environmental Construction Standards Plan (ECS Plan); and
- Fugitive Dust Control Plan.

FERC's Plan and Procedures are baseline construction and mitigation measures developed to minimize the potential environmental impacts of construction on upland areas, wetlands, and waterbodies.

ANR would employ an environmental inspector (EI) to oversee and document environmental compliance. All Project-related construction personnel would be informed of

⁴ The FERC Plan can be viewed on the FERC website <http://www.ferc.gov/industries/gas/enviro/plan.pdf>.

⁵ The FERC Procedures can be viewed on the FERC website <https://www.ferc.gov/industries/gas/enviro/procedures.pdf>.

⁶ These plans can be viewed in ANR's supplemental filing on July 31, 2020 in Docket No. CP20-484-000.

the EI's authority and would receive job-appropriate environmental training prior to commencement of work on the Project.

Prior to commencement of any construction-related activities, survey crews would stake the limits of the construction work areas and access roads. ANR would avoid sensitive areas by flagging or fencing the resource, as appropriate. ANR would contact the national "one-call" system to identify and mark buried utility lines prior to ground disturbance. Construction work areas would be cleared of existing vegetation and graded, as necessary, to create level surfaces for the movement of construction vehicles. In accordance with the FERC Plan, ANR would install temporary erosion and sediment control measures following initial ground disturbance.

During Project operation, ANR would operate and maintain the proposed facilities in compliance with the Commission's requirements in 18 CFR 380.15 and the maintenance requirements in the FERC's Plan and Procedures. Project facilities would be marked and identified in accordance with applicable DOT regulations. In accordance with 49 CFR 192, the facilities would be inspected for leaks as part of scheduled operations and maintenance.

Aboveground Facility Construction

The Project's aboveground facilities would be constructed and maintained in compliance with federal regulations and guidelines and in accordance with the specific requirements of applicable federal and state approvals. High strength concrete, reinforced as necessary, would be utilized for building foundations associated with major compressor equipment. Building foundation depths typically range up to 8 feet below ground surface for grade beams and from 12 to 18 feet below ground surface for light pole foundations. Any soils excavated for the placement of foundations would be compacted in place and excess soil would be used elsewhere on site or disposed of at a state approved offsite location. Construction of all new station and yard piping would occur completely within the new Turkey Creek Compressor Station. ANR would install most of the pipeline facilities below ground using conventional construction methods. This typically consists of a sequential process of surveying, staking, clearing, grading, excavating, fabricating, welding, lowering-in and backfilling, hydrostatic testing, cleanup, and restoration. Following construction, the compressor station would be fenced, and land within the permanent footprint would be covered by gravel, asphalt, or concrete.

8.0 NON-JURISDICTIONAL FACILITIES

Under Section 7 of the NGA, the Commission is required to consider, as part of the decision to approve facilities under its jurisdiction, all factors bearing on the public interest. Occasionally, proposed projects have associated facilities that do not come under the jurisdiction of the Commission. These "non-jurisdictional" facilities may be integral to the need for the proposed facilities, such as a power plant at the end of a jurisdictional pipeline,

or they may be minor, non-integral components of the facilities under the Commission’s jurisdiction.

One non-jurisdictional facility associated with the Project was identified, the Turkey Creek Compressor Station Overhead Project, which consists of new overhead power lines to connect the new compressor station to Cleco Corporate Holdings, LLC’s existing 13.2-kilovolt overhead power line approximately 6 miles southeast of the proposed Turkey Creek Compressor Station. The incoming power would be connected to a new pad mounted service transformer at the compressor station. Additionally, a water well and septic treatment system would be installed within the proposed Turkey Creek Compressor Station facility fence line. All work required to install non-jurisdictional facilities would be conducted in accordance with applicable state and federal permit conditions. Non-jurisdictional facilities are addressed in our Cumulative Impacts analysis in section B.11.

9.0 PERMITS AND CONSULTATIONS

Table 2 provides a list of known federal, state, and local permits for the Project, as well as any responses that have been received to date. ANR would be responsible for obtaining all permits and approvals required for the Project, regardless of their listing in table 2.

Table 2 Anticipated Environmental Permits, Reviews, and Consultations for the Project		
Agency	Permit/Clearance	Status
Federal		
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity	Application filed June 2020
United States Army Corps of Engineers – New Orleans District	Section 404 of the Clean Water Act (Title 33 of the U.S. Code, Section 1344)	Project would comply with Nationwide Permit 33 conditions without Pre-construction Notification.
United States Department of the Interior, United States Fish and Wildlife Service – Louisiana Ecological Services Field Office	Consultation under Section 7 of the Endangered Species Act; the Migratory Bird Treaty Act; the Bald and Golden Eagle Protection Act; and the Fish and Wildlife Coordination Act (Title 16 of the U.S. Code, Sections 661 et seq.).	On May 1, 2020, the U.S. Fish and Wildlife Service stated it had no objections to a no effect determination on Endangered Species Act listed species.
State of Louisiana		
Louisiana Department of Environmental Quality (LDEQ)	Section 401 of the Clean Water Act, Water Quality Certification	Automatic with U.S. Army Corps of Engineers Nationwide Permit 33 authorization
LDEQ	Minor Source Permit	Applications filed April 27, 2020.

Table 2
Anticipated Environmental Permits, Reviews, and Consultations for the Project

Agency	Permit/Clearance	Status
Louisiana Department of Historic Preservation	Section 106 of the National Historic Preservation Act review, consultation, and comment on cultural resources studies and mitigation plans.	Consultation initiated May 18, 2020 and concurrence issued May 28, 2020. No effect determination.
Louisiana Department of Wildlife and Fisheries	Review and consultation regarding state-listed threatened and endangered species.	Consultation initiated May 1, 2020 and concurrence issued May 7, 2020. No impacts to state-listed species are anticipated for the Project.

B. ENVIRONMENTAL ANALYSIS

The following sections discuss the Project's potential direct and indirect impacts on environmental resources. When considering the environmental consequences of the Project, the duration and significance of any potential impacts are described below according to the following four levels: temporary, short-term, long-term, and permanent. Temporary impacts generally occur during construction, with the resources returning to pre-construction conditions almost immediately. Short-term impacts could continue for up to three years following construction. Long-term impacts would require more than three years to recover, but eventually would recover to pre-construction conditions. Permanent impacts are defined as activities that modify resources to the extent that they may not return to pre-construction conditions during the life of the Project, such as with the construction of an aboveground facility. An impact would be considered significant if it would result in a substantial adverse change in the physical environment.

No wetlands or fisheries would be impacted by the Project. Consequently, these resources are not addressed in our analysis.

1.0 GEOLOGY

The Project is within the West Gulf Coastal Plain section of the Coastal Plain physiographic province. The West Gulf Coastal Plain is characterized by nearly level to moderately rolling irregular plains, which were formed by the deposition and subsequent uplift of continental marine sediments from the end of the Cretaceous period to the Pleistocene (The Nature Conservancy, 2003).

The topography of the Project area is nearly level with an elevation of approximately 130 feet above mean sea level at the Turkey Creek Compressor Station (including the permanent truck crossing) and MLV 3, and 55 feet above mean sea level at MLV 2.

1.1. MINERAL RESOURCES

Louisiana's primary mineral resources include fuel (oil and gas production) and non-fuel mineral resources (salt, sand and gravel, crushed stone, and lime). A search of oil and gas production and non-fuel mineral resources in the Project vicinity utilizing the Louisiana Department of Natural Resources (LDNR) Strategic Online Natural Resource Information System (SONRIS) (LDNR, 2020a), the USGS Mineral Resource Data System (USGS, 2011), and LDNR salt dome mapping (LDNR, 2020b) showed that within 0.25 mile of proposed workspaces there are no past or present quarries, mines, or mine spoil areas. There are also no wells associated with oil and gas activities, including underground injection control wells, within 0.25 mile of the Project. The closest oil or gas well is a plugged well approximately 0.56-mile northwest of MLV 2 (LDNR, 2020a).

This data was obtained through publicly available state records, and the location presented may not be exact; therefore, ANR would field verify the presence/absence of oil and gas wells within construction workspace prior to the start of construction.

If an oil or gas well is encountered during construction, ANR would determine an appropriate buffer and construction procedure around the well based on site-specific conditions and coordination with the owner of the well. Additionally, ANR would implement other measures during construction to reduce the likelihood of impacts, such as flagging wells or reducing the construction workspace.

Based on these measures and the distance to known active mineral extraction, we conclude that the Project would not significantly impact the availability of, or access to, mineral resources.

1.2. GEOLOGIC HAZARDS

Geologic hazards are natural, physical conditions that can result in damage to land and structures or injury to people. Such hazards typically are seismic-related, including earthquakes, surface faulting, and soil liquefaction. Geologic hazards discussed below also include landslides, ground subsidence (including karst terrain), and flood hazards.

1.2.1 Seismicity and Soil Liquefaction

The shaking during an earthquake can be expressed in terms of the acceleration as a percent of gravity (g), and seismic risk can be quantified by the motions experienced at the ground surface or by structures during a given earthquake expressed in terms of g. For reference, a peak ground acceleration of 10 percent g (0.1g) is generally considered the minimum threshold for damage to older structures or structures not constructed to resist earthquakes. USGS National Seismic Hazard Probability Mapping shows that for the Project area, within a 50-year period, there is a 2 percent probability of an earthquake with an effective peak ground acceleration (PGA) of 4 to 6 percent g; and a 10 percent probability of an earthquake with an effective PGA of 1 to 2 percent g being exceeded (USGS, 2018).

The Project would be within the Gulf-margin normal fault system, a belt of poorly defined, mostly seaward-facing normal faults that trend parallel to the Gulf Coast in westernmost Florida, southwestern Alabama, southern Mississippi, all of Louisiana and southernmost Arkansas, and eastern and southern Texas (USGS, 2020). Movement along active growth faults in this system tends to be minimal (less than 0.2 millimeters/year) and non-seismogenic; the Louisiana Geological Survey (2001) describes this process as gradual creep instead of sudden break or displacement. The Project facilities are not anticipated to be affected by faults given the nature of fault movement (gradual creep) and the composition of sediments and rocks that underlie the fault system, which are

likely unable to generate the energy required to produce significant seismic events (Wheeler and Heinrich, 1998).

The Project is in an area of low seismicity and, as such, the potential for soil liquefaction to occur is negligible. Given these conditions, we conclude that there is a low potential for prolonged ground shaking, ground rupture, or soil liquefaction to occur or significantly impact Project facilities.

1.2.2. Landslide and Slope Stability

Landslides are defined as the movement of rock, debris, or soil down a slope. The Project area is flat or gently sloping. Therefore, landslide risk is negligible.

1.2.3. Ground Subsidence

Ground subsidence, involving the localized or regional lowering of the ground surface, may be caused by karst dissolution, sediment compaction due to oil, gas, and/or groundwater extraction, and underground mines. No karst terrain is present and the lithology that could lead to bedrock dissolution and karst development do not generally occur in the vicinity of the Project. Further, active oil and gas extraction and subsurface mines were not identified within 0.25 mile of the Project area. Subsidence issues from large-scale groundwater pumping have been prevalent and well documented along the Gulf Coast; however, there are no publicly available records of these events occurring in Evangeline Parish (Louisiana State University, 2017). Therefore, and because the Project facilities would not significantly impact groundwater resources (refer to section B.3), the Project is not anticipated to be significantly impacted by ground subsidence.

1.2.4. Flood Hazards

The Project could be impacted by flash flooding due to its proximity to nearby waterbodies. According to the Federal Emergency Management Agency (FEMA), ANR's existing MLV 2 is in an area designated as Zone A, which is defined as an area with a 1 percent annual chance of flooding (FEMA, 2020). However, all activities at the existing MLV 2 would be temporary, with no new permanent impervious surfaces installed. Therefore, the Project facilities would not impact flood storage capacity and there would be no new impacts from flood hazards.

Based on the above assessment, we conclude the Project would not significantly impact or be significantly impacted by geologic hazards or mineral resources.

2.0 SOILS

Soil characteristics for the Project were assessed using the Natural Resources Conservation Service (NRCS) Soil Survey geographic database (NRCS, 2019). Soils were evaluated according to the characteristics that could affect construction or increase the potential for soil impacts during construction or operation. These characteristics include prime farmland designation, compaction potential, highly erodible soils, revegetation potential, and the presence of shallow bedrock.

No Project area soils were classified as having high compaction potential, low revegetation potential, high wind erodibility, or a shallow depth to bedrock (bedrock within 60 inches of the ground surface). All Project area soils are classified as prime farmland, and 2.3 acres of project area soils are considered highly erodible by water.

2.1. PRIME FARMLAND

The U.S. Department of Agriculture defines prime farmland as land that has the best combination of physical and chemical characteristics for growing food, feed, forage, fiber, and oilseed crops. Unique farmland is land, other than prime farmland, that is used for production of specific high-value food and fiber crops. Soils that do not meet all of the requirements to be considered prime or unique farmland may be considered farmland of statewide or local importance if soils are capable of producing a high yield of crops when treated or managed according to accepted farming methods.

All soils that would be disturbed by the Project are classified as prime farmland; however, none are currently in agricultural use. Soils that would be impacted by new permanent aboveground facilities (12.3 acres), including the new permanent truck crossing, would be converted to industrial use following the completion of construction. Impacts from construction in temporary workspaces would be temporary and short-term. ANR would minimize adverse impacts on soils, including prime farmland, by implementing the best management practices (BMPs) in ANR's ECS Plan and the FERC Plan.

The acreage of prime farmland that would be permanently impacted by the Project is negligible when compared to the total acreage of prime farmland in Evangeline Parish (337,988 acres), Louisiana (NRCS, 2019). Therefore, we conclude impacts on the availability of prime farmland would not be significant.

2.2. EROSION AND REVEGETATION

The Project area is not highly erodible by wind, and the majority of soils in the Project area are not highly erodible by water. However, clearing removes protective

vegetative cover and exposes soils to the effects of wind and water, which increases the potential for soil erosion and the transport of sediment to sensitive resource areas.

To minimize or avoid potential impacts due to soil erosion, ANR would implement measures in accordance with its ECS Plan and the FERC Plan. These measures include installation of temporary erosion control devices, such as interceptor diversions and sediment filter devices (e.g., filter socks and silt fence) immediately following initial ground disturbance. ANR would additionally utilize dust-control measures, including routine wetting of work areas, as needed. ANR would inspect temporary erosion controls on a regular basis and after each rainfall event of 0.5 inch or greater to ensure proper functioning, and would maintain these devices until the Project areas are successfully revegetated or stabilized.

All Project soils are considered to have good revegetation potential. Successful restoration and revegetation of the Project workspaces are important for maintaining productivity and protecting the underlying soil. Unless otherwise requested by the landowner, temporary workspace necessary for construction of the Project facilities would be reseeded with the seed mixtures and application rates developed in consultation with the NRCS for revegetation in accordance ANR's ECS Plan and the FERC Plan. In addition, ANR would implement noxious and invasive species control measures (refer to section B.4.1.1).

Given ANR's proposed mitigation measures and that the disturbed areas would be returned to pre-construction conditions, maintained in an herbaceous state, or otherwise stabilized (e.g., gravel or pavement), we conclude that significant and permanent impacts due to soil erosion or poor revegetation would not occur.

2.3. SOIL CONTAMINATION

Contamination from spills or leaks of fuels, lubricants, and coolant from construction equipment could adversely affect soils. ANR would implement measures outlined in its SPCC Plan to prevent and contain accidental spills of any material that may contaminate soils, and to ensure that inadvertent spills of fuels, lubricants, or coolants are contained, cleaned up, and disposed of in an appropriate manner.

ANR conducted a review of the U.S. Environmental Protection Agency (USEPA) and Louisiana Department of Environmental Quality (LDEQ) online databases to identify recent or historic sources of contamination within 0.50 mile of the Project area. Based on this review, no known sources of contamination were identified (LDEQ, 2020a; 2020b; USEPA, 2020a; 2020b). Therefore, Project activities are not anticipated to impact or be impacted by existing contamination. In the event that contaminated media is discovered during construction, ANR would implement its Plan for the Unanticipated Discovery of

Contaminated Environmental Media and adhere to all applicable federal, state, and local regulations.

Given the minimization and mitigation measures described above, we conclude that the Project would mostly have a short-term impact on soils (until revegetation or paving is complete) and the impacts of construction and operation would not be significant.

3.0 WATER RESOURCES

3.1. GROUNDWATER RESOURCES

All Project areas are within the Coastal Lowlands aquifer system. The Coastal Lowlands aquifer system is a regional aquifer spanning from coastal Texas to Florida. Groundwater withdrawn from the aquifer is used for agricultural, public supply, industrial, and other domestic and commercial purposes (USGS, 1999). The Project is within the locally named Chicot aquifer system. The Chicot aquifer system is the principal source of fresh groundwater in southwestern Louisiana and the main source of fresh groundwater for Evangeline Parish (Louisiana Department of Transportation and Development [LDTD], 2015; LDNR, 2012). Groundwater withdrawals from the Evangeline Aquifer, which underlies the Chicot Aquifer in the Project area, only account for 9.46 million gallons per day compared to the 110.92 million gallons per day from the Chicot Aquifer (LDTD, 2015).

3.1.1. Sole Source Aquifer and Wellhead Protection Areas

The USEPA oversees the Sole Source Aquifer Protection Program to protect high production aquifers that supply 50 percent or more of the region's water supply and for which there are no reasonably available alternative drinking water sources, should the aquifer become contaminated. The Project would be within the sole source Chicot aquifer system (USEPA, 2020c).

In Louisiana, the LDEQ Drinking Water Protection Program establishes and protects wellhead areas associated with public water supply systems from contaminants that may have adverse effects on public health (Safe Drinking Water Act Amendments of 1986). Based on a review of LDNR SONRIS and information obtained from the LDEQ, there are no wellhead protection areas within 3 miles of the Project (Gibeson, 2020; LDNR, 2020a; Moleri, 2020).

3.1.2. Water Wells and Springs

Based on a review of LDNR SONRIS information (LDNR, 2020a), field surveys, and landowner discussions, ANR did not identify any water wells within 150 feet of the Project.

ANR would install a water well within the fence line for the Turkey Creek Compressor Station. All hydrostatic test water (approximately 100,000 gallons) would be sourced from this new groundwater well. In addition, ANR would utilize a maximum of 20,000 gallons of water per day during construction to control fugitive dust emissions that would be sourced from municipal water sources and/or the new groundwater well. Following completion of hydrostatic testing activities, ANR would utilize the new water well as a water source during operation of the Turkey Creek Compressor Station, with less than 5,000 gallons required per month. The new groundwater well at the proposed Turkey Creek Compressor Station would be installed during construction of the Project. Once installed, ANR would clearly mark the new groundwater well with flags or signage to minimize the potential for damage or destruction. ANR would determine an appropriate buffer and construction procedure based on site-specific conditions around the well once marked.

3.1.3. Groundwater Impacts

The trenches for the new suction/discharge lines at the Turkey Creek Compressor Station would be dug to a depth of approximately 8 feet with a maximum of 15 feet required for pipeline crossings, while building foundation depths could typically range up to 8 feet for grade beams and from 12 to 18 feet for light pole foundations. These excavations could temporarily impact perched groundwater from shallow aquifers or confining units near the surface. Should dewatering of the excavation areas be necessary due to a high water table, we expect the resulting changes in water levels and/or turbidity in these aquifers to be localized and temporary because water levels quickly re-establish equilibrium and turbidity levels rapidly subside. The addition of impervious surfaces and berms at aboveground facilities may permanently affect overland flow patterns and subsurface hydrology. However, these effects would be highly localized and minor.

Based on this assessment, ANR's minimal proposed construction and operational groundwater usage, and the distance from groundwater supply wells to the Project area (greater than 150 feet for private wells and greater than 3 miles from wellhead protection areas), we conclude that the Project would not significantly impact groundwater resources.

3.1.4. Groundwater Contamination

No leaking underground storage tanks or other sources of groundwater contamination were identified within 0.5 mile of the Project (LDEQ, 2020a; LDEQ, 2020b; USEPA, 2020a; USEPA, 2020b). If contaminated groundwater is encountered during construction of the Project, ANR would implement measures outlined in its Plan for the Unanticipated Discovery of Contaminated Environmental Media. In addition, ANR would implement measures outlined in its SPCC Plan to prevent and contain accidental spills of any material that may contaminate soils, and to ensure that inadvertent spills of fuels, lubricants, or coolants are contained, cleaned up, and disposed of in an appropriate manner.

Based on ANR's proposed measures, we conclude that the Project would have a temporary and not significant impact on groundwater quality.

3.2. SURFACE WATER RESOURCES

The Project is within the Louisiana Coastal Subregion, Atchafalaya-Vermillion Basin, and within the Bayou Teche watershed (hydrologic unit code [HUC] 08080102) (USEPA, 2020d). ANR conducted wetland and waterbody delineation surveys in September and October 2018 and April 2020. No wetlands were identified. A waterbody, as defined in the FERC Procedures, is "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." Two waterbodies (ephemeral roadside ditches) were identified within the Project area at MLV 2.

3.2.1. Sensitive Waterbodies

Sensitive waterbodies include waterbodies that do not meet state water quality standards; waterbodies supporting threatened and endangered species and critical habitats; waterbodies that would be crossed within 3 miles of a surface water intake; waterbodies designated as exceptional quality; and waterbodies listed on the National Rivers Inventory. No sensitive surface waterbodies are within 0.5 mile of the Project or would be otherwise impacted by the Project.

3.2.2. Surface Waterbodies Impacts and Mitigation Measures

Two waterbodies (both ephemeral roadside ditches) would be temporarily spanned with timber matting to allow for access across the waterbodies during Project construction activities at MLV 2; therefore, direct impacts would be limited to installation and removal of the mats. ANR anticipates the need for blowdown activities at one of its two MLV facilities and has identified MLV 3 as the preferred site; therefore,

if ANR chooses MLV 3, no impacts on surface waterbodies are anticipated. If MLV 2 is chosen, surface waterbody impacts may occur as discussed in this section.

Potential impacts on these ephemeral waterbodies could occur from excavation (for installation of timber mats), and construction activities. Installation of timber mats would protect the waterbodies from direct construction-related impacts. Initial installation of the timber mats would temporarily expose streambanks to erosion and could cause sedimentation and increase turbidity. However, ANR would stabilize the area with erosion and sedimentation barriers and maintain these devices throughout construction to prevent disturbed soils and sediment from migrating into waterbodies. Additionally, the use of timber mats would reduce the likelihood of turbidity and sedimentation impacts resulting from construction equipment and vehicular traffic crossing the waterbodies. The installation of the timber mats would be conducted during low-flow periods to minimize sedimentation and turbidity and stream bank disturbances. ANR would implement the FERC Procedures and would implement BMPs and erosion control devices, such as the use of silt fences and temporary diversions, outlined in its ECS Plan. ANR does not propose any modification of these Procedures in waterbodies for construction. ANR would revegetate construction workspaces in accordance with its ESC Plan following construction, which are consistent with the FERC Plan and Procedures, to prevent migration of sediment offsite during operation. Upon completion of construction, permanent erosion control devices would be installed to protect from future erosion.

A release of fuel or hazardous material into a waterbody can impact water quality. ANR has developed an SPCC Plan to prevent, contain, and clean-up spills and address necessary precautions during material storage. The transfer of liquids and refueling of construction equipment would take place in upland areas more than 100 feet from the edge of a waterbody where practicable, unless otherwise reviewed and approved by the EI. In the event refueling occurs within 100 feet of a waterbody, secondary containment structures would be used to minimize the potential for spills and ANR would stage materials on-site for clean-up in the event of a spill. Based on these measures, we find the potential for a release of fuel or hazardous material into a waterbody would be minimized to the extent practicable.

As stated above, ANR would avoid and minimize impacts to the extent practicable by implementing the measures in its ESC Plan and SPCC, and the FERC Procedures; and restoring all waterbody banks following construction. Based on these measures, we conclude that impacts on surface waterbodies would be temporary and not significant.

In addition, ANR would construct its facilities in accordance with the regulations and requirements of applicable permits, such as the U.S. Army Corps of Engineers authorizations under Section 404 of the Clean Water Act and National Pollutant

Discharge Elimination System stormwater discharge permit. Although construction associated with the Project would not impact wetlands, the two ephemeral waterbodies are subject to Section 404 of the Clean Water Act. The Project qualifies for coverage under Nationwide Permit 33 without pre-construction notification; therefore, no further coordination with the U.S. Army Corps of Engineers is required for this Project.

3.3. HYDROSTATIC TESTING AND DUST CONTROL

In accordance with DOT regulations, ANR would perform hydrostatic testing of the new above- and below-ground facility piping prior to placing the Project facilities into service. Hydrostatic testing is a method by which water is introduced to segments of pipe and then pressurized to verify the integrity of the pipeline. ANR would use 100,000 gallons of water for hydrostatic testing. Hydrostatic test water would be sourced from a new groundwater well, which ANR would drill within the proposed permanent footprint for the Turkey Creek Compressor Station. No chemicals would be added to the hydrostatic test water. Following hydrostatic testing, test water would either be hauled off to be disposed of in accordance with state, federal, and local regulations or would pass through an energy-dissipation device as necessary, before being discharged into well vegetated, upland areas in accordance with the FERC's Procedures.

Additionally, ANR would utilize a maximum of 20,000 gallons per day during construction for fugitive dust control in accordance with its Dust Control Plan. Water obtained for dust control would also be obtained from municipal sources or the on-site well. Based on ANR's implementation of the FERC's Procedures, and its Erosion and Sediment Control Plan and Dust Control Plan, we conclude that hydrostatic test water and fugitive dust control impacts would not result in significant impacts on water resources.

4.0 VEGETATION AND WILDLIFE

4.1 VEGETATION

The Project crosses a variety of vegetation types commonly found in Louisiana. The majority of the Project impacts would occur on pine plantation. Construction of the Project would temporarily impact about 21.3 acres of pine plantation, 2.2 acres of herbaceous vegetation, and 0.2 acre of developed land (within the existing fencelines of MLVs 2 and 3). Approximately 12.3 acres of pine plantation and 0.1 acre of herbaceous vegetation would be permanently converted to developed land (proposed Turkey Creek Compressor Station and two new access roads). The remaining acreage would be restored or revert back to former uses. ANR would retain a forested perimeter around the permanent compressor station.

Pine plantation accounts for approximately 90 percent of the total Project area. The new Turkey Creek Compressor Station and new access roads consists of planted stands of pine species managed and harvested on rotations for a variety of timber products. This vegetation is comprised predominately of loblolly pine that was last cleared between May 2012 and May 2014. The existing right-of-way consists of herbaceous vegetation and during operation of the Project, 0.1 acre would be permanently converted to developed land for the new permanent truck crossing. The permanent truck crossing would be directly over ANR's existing pipeline right-of-way.

During construction of the Project, the proposed work at the existing MLV 2 would require a total of 0.2 acre, of which 0.1 acre of herbaceous vegetation would be utilized outside of the existing facility fenceline. The proposed work at the existing MLV 3 would require a total of 0.3 acre, of which 0.2 acre of herbaceous vegetation would be utilized outside of the existing facility fence line during Project construction. However, as stated previously, although these impacts are analyzed throughout the EA, modifications to facilitate the blowdown for the compressor station would only occur at one of these sites. All workspace outside of the existing facilities would be temporary and limited to or directly adjacent to ANR's existing permanent right-of-way.

No unique or sensitive vegetation areas are within 0.25 mile of the Project. Vegetation impacts and mitigation measures are discussed further below.

4.1.1. Noxious and Invasive Species

An invasive species is a plant which is of foreign origin and is new to or not widely prevalent in the U.S.. Noxious or invasive plant species can out-compete and displace native plant species, thereby negatively altering the appearance, composition, and habitat value of affected areas. Project activities could introduce and increase the spread of noxious weed species, particularly in areas where vegetation is cleared. Once established, noxious weeds can become permanent if left uncontrolled. To minimize the introduction or spread of invasive plant species to the Project area, ANR would implement several management strategies where soil disturbance and/or removal of native vegetation may occur. To minimize the potential spread of invasive species, ANR would revegetate upland areas using seed mixes developed in consultation with NRCS in accordance with its ESC Plan and the FERC Plan. Additionally, ANR would implement management and control measures, including:

- using construction techniques that minimize the time that bare soil is exposed, thus minimizing the opportunity for invasive species to become established;
- controlling non-native or invasive species within the footprint of permanent facilities using mechanical removal, if necessary;

- cleaning equipment before moving sites in order to prevent the spread of invasive species; and
- following ANR's ECS Plan and the FERC Plan to ensure that soil movement and the associated movement of non-native seeds are minimized.

4.1.2. Vegetation Impacts and Mitigation Measures

Primary impacts on vegetation from the Project would be from cutting, clearing, and/or removal of existing vegetation within construction work areas. ANR would identify and flag the limits of construction in the field prior to clearing operations. Secondary effects associated with disturbances to vegetation could include the increased potential for soil erosion and introduction and establishment of invasive weed species. Following construction, areas not permanently impacted by operation of the new Turkey Creek Compressor Station would be restored and revert to former uses.

ANR would conduct follow-up inspections of all disturbed areas to ensure revegetation is successful. Vegetation within the new and existing aboveground facilities would be maintained by mowing, cutting, and trimming as necessary. Trees cleared for temporary construction would result in long-term impacts due to the time required for the trees to reestablish. ANR proposes to acquire ownership of the proposed Turkey Creek Compressor Station property; therefore, the re-planting of trees are not anticipated.

The frequency of the vegetation maintenance would be in accordance with its Erosion and Sediment Control Plan, the FERC Plan, and the FERC Procedures. Given the limited permanent impacts on vegetation (12.3 acres of pine plantation and 0.1 acre of herbaceous vegetation) associated with the aboveground facility, the limited area of disturbance, the rapid growth rate of vegetation in the Project area, and ANR's mitigation measures, we conclude that impacts on vegetation from the Project would be long-term, but not significant.

4.2. WILDLIFE

Wildlife habitat types are based on the vegetation cover types within the Project area and most of the Project would occur on pine plantation, open herbaceous vegetation, and existing disturbed areas. The new Turkey Creek Compressor Station (including the permanent truck crossing) and ANR's existing MLV 3 are within the Coastal Plains and Flatwoods, Western Gulf Section of the Outer Coastal Plain Mixed Forest Province (USDA, 2020). ANR's existing MLV 2 is located within the Louisiana Coast Prairies and Marshes Section of the Outer Coastal Plain Mixed Forest Province (USDA, 2020). The predominate vegetation type within this area consists of southern mixed forest, oak-hickory pine forest, and southern floodplain forest. Loblolly pine and shortleaf pine are commonly found in the northern portion of this area.

Wildlife species common to the Project area includes raccoon, gray fox, gray squirrel, white-tailed deer, nutria, mourning dove, turkey, cardinal, and eastern diamondback rattlesnake. No unique or sensitive wildlife resources were identified in the Project area.

Impacts on wildlife would vary depending on the specific habitat requirements of the species in the area and the vegetative land cover crossed by the Project. Wildlife is generally not present within the fence line of the existing facilities (MLV 2 or MLV 3), although small animals, such as squirrels and reptiles, may occasionally occur. Potential short-term impacts on wildlife include the displacement of individuals from construction areas and adjacent habitats and the direct mortality of small, less mobile mammals, reptiles, and amphibians that are unable to vacate the construction area. Long-term impacts would include conversion of vegetated land (pine plantation) to developed land.

Altered habitat and periodic disturbance could also increase wildlife mortality, injury, and stress. However, more mobile species, such as birds and larger mammals, would likely relocate to other nearby suitable habitat and avoid the Project area once construction activities commence.

Noise and lighting associated with operation of the new Turkey Creek Compressor Station would be permanent; however, given the large extent of similar habitat available adjacent to the Project, we conclude impacts would be permanent but negligible. Additionally, some species may become acclimated to the noise and light and return to the Project area. As stated previously, ANR anticipates the need for blowdown activities at one of its two MLV facilities and has identified MLV 3 as the preferred MLV blowdown location. Blowdowns would occur during construction only and would last approximately 3 hours each and would be conducted between 7:00 am and 7:00 pm. Noise levels at the MLV 2 or MLV 3 would return to pre-construction levels immediately following completion of the proposed blowdown to the new compressor station. While terrestrial wildlife may be temporarily displaced or avoid the Project area due to disturbance from blowdown noise, impacts would be limited to the duration of active blowdown and would be minor. Therefore, noise associated with construction and operation of the Project is not anticipated to significantly impact wildlife in the Project area.

Long-term and permanent impacts from habitat alteration would be minimized by the implementation of ESC Plan and the FERC Plan and Procedures, which would ensure revegetation of areas temporarily disturbed by construction. Given the abundant adjacent habitat and considering the Turkey Creek Compressor Station site consists of relatively recently cleared pine plantation, and wildlife are likely to occur in more diverse and undisturbed habitat adjacent to the compressor station, we conclude the short-term

(herbaceous habitat); long term (trees); and permanent (new fenced facility) disturbance of local habitat from the Project would have no significant effects on wildlife.

4.2.1. Migratory Birds

Migratory birds are species that nest in the U.S. and Canada during the summer and then migrate to and from the tropical regions of Mexico, Central and South America, and the Caribbean for the non-breeding season. Migratory birds are protected under the Migratory Bird Treaty Act ([MBTA] – Title 16 of the U.S. Code, sections 703-711), and bald and golden eagles are additionally protected under the Bald and Golden Eagle Protection Act (Title 16 of the U.S. Code, sections 668-668d). The MBTA, as amended, prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Executive Order (EO) 13186 was enacted in 2001 to, among other things, ensure that environmental analyses of federal actions evaluate the impacts of actions on migratory birds. EO 13186 directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and avoid, minimize, or mitigate adverse impacts on migratory birds through enhanced collaboration with the U.S. Fish and Wildlife Service (FWS), and emphasizes species of concern, priority habitats, and key risk factors, with particular focus given to population-level impacts.

On March 30, 2011, the FWS and FERC entered into a Memorandum of Understanding regarding implementation of EO 13186, that focuses on birds of conservation concern (BCC) and strengthening migratory bird conservation through enhanced collaboration between the two agencies. This memorandum does not waive legal requirements under the MBTA, Bald and Golden Eagle Protection Act, the ESA, or any other statutes, and does not authorize the take of migratory birds.

The Project is within Bird Conservation Region (BCR) 25 and 37. On April 30, 2020, ANR utilized the Informational Planning and Consultation system (IPaC) to identify BCC within the Project area. No BCCs were identified as potentially occurring within the Turkey Creek Compressor Station and MLV 3 Project area (BCC 25). Two BCCs were identified as potentially occurring within the Project area at MLV 2, the dunlin and lesser yellowlegs; however, dunlin is only classified as a BCC in certain BCRs and is not considered to be a BCC in the Project area BCR (BCR 37) (FWS, 2020a, 2008).

The lesser yellowlegs typically breeds in open boreal forests with shallow wetlands spread throughout. Their nests are found within depressions on the ground or in moss, within decayed leaves, spruce needles or other debris, along fallen branches or logs, or beneath low laying shrubs. During the winter, they will inhabit areas with shallow fresh and saltwater habitats (Cornell Lab of Ornithology, 2019a, 2019b).

Although two BCCs (one of which is not classified as BCC for the Project area BCR) were identified as having the potential to occur within the Project vicinity, it is not likely that either breed in the Project area. Suitable habitat for both the lesser yellowlegs and dunlin is not found within the Project area, as they prefer areas in proximity to shallow fresh and saltwater habitat.

Project activities with the potential to result in adverse impacts on migratory bird species include clearing of forested habitat (21.3 acre) and increased noise during construction and operation and increased lighting during operation of the compressor station. These impacts are associated with the permanent conversion of forested habitat to non-forested habitat. Although the Project would result in clearing of pine plantation for construction, all cleared areas outside of the permanent workspace would be allowed to revegetate following the completion. Noise and lighting associated with operation of the new Turkey Creek Compressor Station would be permanent; however, there is an abundance of adjacent habitat and some species may become acclimated and return to the Project area. Project activities and initial habitat disturbance are anticipated to commence in September 2021, after the migratory bird nesting season (April 15 through August 1). In the event that unforeseen schedule changes result in a Project construction start date during the migratory bird nesting season, ANR has committed to conduct a pedestrian nest survey of the Project area to avoid and minimize potential impacts on migratory birds. The pedestrian nest survey would be conducted over the maximum span of two weeks prior to the start of clearing activities. Any unoccupied nests (i.e. nests without birds or eggs) identified during the survey would be handled in accordance with the FWS *Migratory Bird Permit Memorandum* and any occupied nests would be flagged and avoided. If nests are within critical workspace needed to successfully complete construction of the Project, ANR would coordinate with the FWS to develop site-specific mitigation measures for nests to minimize construction delays. Impacts on bald eagles are not expected due to Project construction. In the event that a bald eagle is encountered, ANR would conduct construction in compliance with the National Bald Eagle Management Guidelines.

On May 1, 2020, ANR contacted the FWS on species protected under the MBTA. On May 1, 2020, the FWS responded and did not identify the need for additional mitigation measures for protected species.

Given ANR's proposed project timing; mitigation measures if construction occurs during the migratory nesting period and if nests are found in critical workspaces; the abundance of similar adjacent habitats; likelihood of birds returning immediately following completion of construction; and noise associated with operation of the Project not having population level impacts on migratory birds; we conclude that the Project would not significantly impact migratory bird populations or eagles.

4.3. SPECIAL STATUS SPECIES

Special status species are those species for which state or federal agencies provide an additional level of protection by law, regulation, or policy. Included in this category are federally listed species that are protected under the ESA, species considered as candidates for such listing by the FWS, and those species that are state-listed as threatened, endangered, or state species of special concern.

4.3.1. Federally Listed Species

In accordance with Section 7 of the ESA, the FERC, in coordination with the FWS, must ensure that any federal action authorized, funded, or carried out by the agency does not jeopardize the continued existence of a federally listed threatened or endangered species or result in an adverse modification of designated critical habitat of a federally listed species.

On April 30, 2020, ANR utilized the IPaC system to obtain a list of threatened and endangered species that may occur in the Project area. The federally endangered red-cockaded woodpecker is the only federally listed species with the potential to occur in the Project vicinity. This species is found in a specific habitat that typically consists of roosting and nesting within excavated cavities in loblolly, slash, shortleaf, pitch, and pine trees aged between 80 and 100 years old that are infected with red heart fungus (LDWF, 2020d). Red-cockaded woodpeckers forage on insects found under the bark of pine trees predominately, but some foraging has been documented under the bark of hardwood trees (Cornell Lab of Ornithology, 2019c).

Based on field surveys conducted for the Project area, suitable habitat (loblolly pine) occurs within the Project survey area. However, no trees greater than or equal to 60 years old or greater than or equal to 10 inches in diameter at breast height would be cleared for the Project, as the proposed Turkey Creek Compressor Station and existing MLV 2 and MLV3 are situated within relatively recently cleared areas (i.e. within the last 10 years) and within or directly adjacent to existing maintained rights-of-way. Although there is no suitable red-cockaded woodpecker nesting habitat present in the Project area, it is unknown if potential nesting habitat is present within 0.5 mile of the Project area. Therefore, foraging habitat for the red-cockaded woodpecker is assumed to be present in the Project area. However, if foraging individuals are present at the time of construction, they would likely relocate to nearby suitable habitat. Because trees within the Project area are predominately loblolly pine plantation that was last cleared between May 2012 and May 2014 and there is no suitable nesting habitat for this species, and no tree clearing would occur on trees greater than or equal to 60 years or 10 inches in diameter, we have determined the Project would have *no effect* on the red-cockaded woodpecker.

On April 30, 2020, ANR received FWS determination key results for the red-cockaded woodpecker with a *no effect* determination.⁷ On May 1, 2020, ANR submitted these results and initially requested concurrence for a *may affect but not likely to adversely affect* determination. However, ANR followed up with the FWS via e-mail correspondence, clarifying with the defined Project area, the determination key results of a *no effect* would be the appropriate determination for this species. On May 1, 2020, the FWS responded via e-mail, with no objections to the *no effect* determination. Therefore, no further consultation is necessary under section 7 of the ESA.

4.3.2. State-Listed Species

On April 13, 2020 and March 9, 2020, ANR contacted the LDWF to identify state-listed species potentially present in the Project area. According to the LDWF Wildlife Diversity Program, the Backman's sparrow (sensitive species) was observed approximately 3 miles northwest of the Turkey Creek Compressor Station. Additionally, the sensitive Georgia satyr and the sensitive short-eared owl were observed approximately 3 miles southeast and 3 miles northeast, respectively, of the Project's existing MLV 2. Due to the distance from the Project, no impacts are anticipated on these species. The red-cockaded woodpecker is also a state-listed species; however, as stated, above the Project would have *no effect* on this federally-listed species. On May 7, 2020, the LDWF indicated that no impacts on state listed rare, threatened, or endangered species, or critical habitats are anticipated to occur as a result of the Project. On July 21, 2020, the LDWF, in response to our July 20, 2020 Notice of Application, reaffirmed its concurrence that no impacts on state-listed species are anticipated to occur within the Project area.

5.0 LAND USE, RECREATION, AND VISUAL RESOURCES

5.1. LAND USE

Land use categories identified in the Project area consist of pine plantation, open land, and industrial land. Construction of all Project facilities would disturb 23.7 acres. Pine plantation consists of pine species managed and harvested on rotations for a variety of timber products. Open land consists of non-forested vegetated areas that are not classified as agricultural lands. Industrial land consists of unvegetated, developed land that is not residential. A summary of the land use categories that would be affected by construction and operation is provided below in table 3.

⁷ Based on the information ANR provided in its IPaC, the FWS may provide a 'Determination Key Result' which is a predetermined consultation outcome based on an existing programmatic consultation and biological opinion or internal FWS standing analysis.

Facility	Pine Plantation		Open Land		Industrial Land		Project Total	
	Const. ^a	Op. ^b						
Turkey Creek Compressor Station ^c	21.3	12.3	1.9	0.1	0.0	0.0	23.2	12.3
Mainline Valve 2 ^d	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0
Mainline Valve 3 ^d	0.0	0.0	0.2	0.0	0.1	0.0	0.3	0.0
Project Total	21.3	12.3	2.2	0.1	0.2	0.0	23.7	12.3

^a Land affected during construction is inclusive of operation impacts (permanent).
^b Land affected during operation consists only of new permanent impacts.
^c Construction impact acreages for the Turkey Creek Compressor Station also includes land affected during construction of the two new permanent access roads to the Turkey Creek Compressor Station, a new truck crossing, and the land within ANR's existing right-of-way, which would be used for temporary access to the new permanent truck crossing location. Operational impacts for the Turkey Creek Compressor Station also include the land permanently affected by the new truck crossing.
^d Project activities would occur at or adjacent to existing ANR facilities.

5.1.1. Turkey Creek Compressor Station

Construction of the Turkey Creek Compressor Station and two new access roads would require a total of 23.2 acres of land, 21.3 acres of which is characterized as pine plantation and 1.9 acres of which is open land. ANR would install a permanent truck crossing southeast of the Turkey Creek Compressor Station and across ANR's existing permanent right-of-way. The permanent truck crossing would allow the safe passage of construction equipment across ANR's existing 501 lines. ANR would use the existing permanent right-of-way for temporary access to the truck crossing location during construction. The current land use associated with the Project area along the existing right-of-way and permanent truck crossing includes open land and pine plantation. ANR proposes two new permanent access roads as part of the Turkey Creek Compressor Station construction and operational impacts. These impacts are provided in table 3. The new access roads would connect the Turkey Creek Compressor Station to the Onyx road. Following completion of construction, 12.3 acres would be permanently converted to industrial land and used for operation of the compressor station and the new truck crossing. ANR would restore temporary workspaces outside of the proposed permanent facility to pre-construction contours and allow the areas to revegetate.

5.1.2. Modified Aboveground Facilities

The proposed activities at MLV 2 and MLV 3 would require a total of 0.5 acre for construction, including 0.2 acre at MLV 2 and 0.3 acre at MLV 3. Construction activities at the existing MLVs would require temporary workspace both within and outside of the existing facilities to facilitate blowdowns of the new Turkey Creek Compressor Station; however, all workspace outside of the existing facilities would be temporary and limited to or directly adjacent to ANR's existing permanent right-of-way. After construction, ANR would restore the areas outside of the existing MLV facilities to pre-construction contours and allow the areas to revegetate. No new permanent impacts would occur as a result of the Project activities at the existing MLVs.

5.2. RESIDENTIAL AREAS

No residences are within 50 feet of any Project areas. The nearest residence to the Project is approximately 87 feet east of the existing MLV 2 facility site. The nearest residence is about 1.4 miles west from the proposed Turkey Creek Compressor Station and the existing MLV 3 site.

Construction of the Project facilities could result in short-term impacts on nearby residential areas, including increased construction-related traffic on local roads as well as dust and noise generated during construction. ANR would implement the following measures to reduce impacts on residential areas during construction activities:

- limit construction activities to daytime hours whenever feasible;
- take all measures necessary to ensure that utilities are not disrupted during construction. If the need to disrupt utilities arises, ANR would provide as much notice as possible to the landowner prior to the disruption;
- notify affected landowners and adjacent landowners prior to the start of construction;
- maintain traffic flow and emergency vehicle access on residential roadways, and use traffic detail personnel and/or detour signs where appropriate; and
- inspect road surfaces, and clean of any soil and other debris if necessary.

Prior to initiating construction activities, ANR would provide information regarding procedures to follow if a landowner has any concerns or problems during construction. In addition to the measures listed above, ANR would implement its Project-specific Fugitive Dust Plan to reduce dust during construction. Discussed further below in section B.9 (noise section), with implementation of the recommended noise mitigation measures, the predicted sound level from operation of the new Turkey Creek Compressor Station is estimated to be lower than 55 decibels on the A-weighted scale

day-night average sound level at the closest noise sensitive areas. Given these measures, we do not anticipate a significant impact on residences during construction or operation of the facilities.

5.3. PLANNED DEVELOPMENT

ANR has corresponded with landowners and the parish planning department regarding future planned developments within the Project area. No planned residential or commercial areas were identified within 0.25 mile of the proposed compressor station, modified aboveground facilities, or proposed accessed roads.

5.4. RECREATION, PUBLIC INTEREST AREAS, AND SPECIAL LAND USE AREAS

There are no National Park System units, Indian reservations, Conservation Reserve Program lands, National scenic byways, or any natural or scenic areas within 0.25 mile of the Project area. Therefore, we conclude that the Project would not affect these areas.

5.5. HAZARDOUS WASTE SITES

ANR reviewed the USEPA and LDEQ databases, and no known contaminated or hazardous waste sites were identified within 0.5 mile of the Project areas. If contaminated media is discovered during construction, ANR would implement its Plan for the Unanticipated Discovery of Contaminated Media, and adhere to all applicable federal, state, and local regulations. Therefore, we conclude that the Project would not have a significant impact on contaminated or hazardous waste sites.

5.6. VISUAL RESOURCES

Impacts on visual resources would primarily occur during construction of the Turkey Creek Compressor Station due to the presence of construction equipment and installation of the new aboveground structures. Most of the Project impacts on visual resources would be temporary; however, the installation of the new compressor station would be permanent. ANR would construct the new Turkey Creek Compressor Station in a predominately rural area, and, using the center of the compressor station as a point of reference, these facilities are proposed about 1.4 miles from the nearest sensitive visual area (residence). In order to create a natural visual barrier around the new compressor station, ANR would leave a band of existing trees and underbrush in place around the entire permanent facility boundary with the exception of the facility entrance.

Work at the existing MLV 2 and MLV 3 would not result in new permanent impacts or expansion of the facility fence lines; therefore, we do not anticipate additional visual impacts at these locations. The nearest sensitive visual area (residence) is approximately 87 feet east from the Project area at MLV 2 at its closest point; however, MLV 2 is an existing facility and as previously stated, no new permanent impacts would occur at the site.

Given the distance from residences, ANR's use of existing facilities, and ANR's proposed mitigation measures (including leaving the existing band of trees), we conclude that visual impacts of the proposed Project, while permanent, would not be significant.

6.0 CULTURAL RESOURCES

In addition to accounting for impacts on cultural resources under NEPA, Section 106 of the National Historic Preservation Act, as amended, requires FERC to consider the effects of its undertakings on historic properties listed, or eligible for listing on the National Register of Historic Places (NRHP),⁸ and to afford the Advisory Council on Historic Preservation an opportunity to comment. ANR, as a non-federal party, is assisting FERC in meeting our obligations under Section 106 and its implementing regulations at 36 CFR 800.

6.1. AREA OF POTENTIAL EFFECT

The Project area of potential effects (APE) is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist" (36 CFR 800.16(d)). The APE encompasses the entirety of the proposed Project area, which consists of 23.7 acres and a 1.0-mile buffer around the new permanent aboveground facilities at the proposed Turkey Creek Compressor Station to account for any visual or audible effects to historic properties within that radius. ANR deemed that a viewshed assessment was unnecessary at MLV 2 and MLV 3, as no new permanent aboveground facilities were proposed; therefore, the proposed activities at those two sites would not contribute to any new visual or audible effects to historic properties.

⁸ In accordance with 36 CFR 800.16(1)(1), a historic property is any prehistoric or historic district, site, building, structure, object, or property of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization, included in, or eligible for inclusion in, the NRHP. This term includes artifacts, records, and remains that are related to and located within such properties.

6.2. CULTURAL RESOURCES INVESTIGATION

In an effort to identify historic properties within the Project APE and to account for any direct or indirect effects to those properties by the proposed Project, ANR completed a cultural resources investigation which included background research and Phase I cultural resources surveys. Based on the results of the background research, no previously recorded cultural resources were identified within the Project APE.

ANR's Phase I cultural resources surveys for the Project were completed in September and October 2018 and April 2020. ANR surveyed the Project area by 30-meter-interval pedestrian transects; and supplemented with systematic shovel testing at 50-meter intervals along the transects. The archaeological survey covered the entirety of the Project area with a total of 172 shovel tests excavated. No cultural resources were identified within the survey area. Further, no historic structures listed or eligible for listing in the NRHP were identified within 1.0 mile of the Turkey Creek Compressor Station.

On May 18, 2020, ANR submitted the Phase I cultural resources survey report to the Louisiana State Historic Preservation Officer (SHPO) for review and requested concurrence that the proposed Project will have no effect on properties listed or considered eligible for listing in the NRHP. In a letter dated May 28, 2020, the SHPO concurred with ANR. FERC agrees that the proposed Project will not affect historic properties.

6.3. TRIBAL CONSULTATION

On April 8, 2020 ANR sent Project notification letters and requested information on any concerns they may have regarding possible impacts on properties of traditional religious and cultural significance to the following Native American tribes: Alabama-Coushatta Tribe of Texas, Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, and Tunica-Biloxi Indian Tribe. . ANR followed up with the tribes via email on May 6 and 7, 2020 and again on June 5, 2020.

ANR received a response from the Choctaw Nation of Oklahoma on April 30, 2020 requesting copies of the Phase I cultural resources survey reports and associated Geographic Information Systems (GIS) files. On June 26, 2020, ANR sent the requested information to the tribe via email. The tribe sent an email on June 28, 2020 indicating that they had received the requested documents and have concurred with a finding of no historic properties affected for the Project. However, the tribe requested that work be stopped, and its office contacted immediately if Native American artifacts or human remains are encountered. The Jena Band of Choctaw Indians contacted ANR on August

4, 2020 via email stating that the tribe's Tribal Historic Preservation Officer concurs with the determination of "No Effect" and that if any inadvertent discoveries or unanticipated impacts occur, to please contact all tribes with interest in the area. ANR has not received responses from any of the other tribes contacted.

On July 20, 2020, FERC sent the NOI to the same tribes and a follow-up letter on August 18, 2020 regarding the Project. The Choctaw Nation of Oklahoma contacted FERC via letter on September 22, 2020, indicating that the Project lies within their area of historic interest and requested copies of the cultural resources survey report, GIS shapefiles associated with the Project, and maps of all cultural resources within 1 mile of the Project area. On September 30, 2020, ANR contacted the Choctaw Nation of Oklahoma via telephone, to clarify that the requested information was previously provided to the tribe. The tribe informed ANR that they had all materials needed and would file an additional letter with FERC to document that the Choctaw Nation of Oklahoma has no further concerns about the Project and that Section 106 consultations are concluded. To date, FERC has received no further correspondence from the tribes.

6.4. UNANTICIPATED DISCOVERIES PLAN

ANR developed a Project-specific plan for the unanticipated discovery of cultural resources and/or human remains. The plan outlines the procedures to follow, in accordance with state and federal laws, if unanticipated cultural resources or human remains are discovered during construction of the Project. The plan was submitted to the SHPO and FERC, who both requested minor changes to the plan. On October 12, 2020, ANR provided copies of the revised plan with the requested revisions to FERC and the SHPO. We find the plan to be acceptable.

6.5. COMPLIANCE WITH THE NATIONAL HISTORIC PRESERVATION ACT

FERC has completed its compliance requirements with Section 106 of the National Historic Preservation Act for the proposed Project.

7.0 SOCIOECONOMICS

Project construction would occur within Evangeline Parish, Louisiana, and is scheduled to take approximately 14 months, beginning in September 2021. Socioeconomic impacts resulting from the construction and operation of the proposed Project would be related to the number of construction workers that would work in the Project area and their impact on population, public services, and employment during construction. Other potential effects include an increase in local traffic, decreased available housing, increased tax revenue, and possible disproportionate impacts on environmental justice communities.

7.1. EMPLOYMENT

Table 4 provides demographic information for the State of Louisiana and for Evangeline Parish within which any socioeconomics effects would be expected to occur.

State/Parish	2018 Population Estimate	Median Household Income	Civilian Labor Force	Unemployment Rate	Top Three Major Industries^a
Louisiana	4,659,978	\$61,785	2,180,965	6.9	E, R, A
Evangeline Parish	33,443	\$42,573	15,310	13.5	E, M, C
^a E = Educational services, and health care and social assistance; R = Retail trade; A = Arts, entertainment, and recreation, and accommodation and food services; M = Manufacturing; C = Construction. Sources: U.S. Census Bureau, 2019 and U.S. Bureau of Labor Statistics. 2019.					

During construction, the Project would require an average of 45 workers per week. ANR estimates 60 percent of the construction workers hired would be local residents, and it would hire 2 new permanent personnel to operate the new facilities.

Given the population of the parish, the size of the civilian labor force, and the relatively short duration of construction, we anticipate that the Project would have a temporary and negligible positive impact on unemployment rates in the Project area and a negligible impact on the population and industries within the Project area.

7.2. TRANSPORTATION

Construction of the Project may result in minor, temporary impacts on roadways due to construction and the movement of workers and heavy equipment to and from the Project area. Once equipment and materials reach the construction workspace, a majority of construction traffic would be confined to the designated workspace for the Project.

It is anticipated that workers would carpool to the sites to minimize traffic, and ANR would establish parking areas at the sites for the workers. Appropriate traffic control measures, such as flagmen and signs, would be used as necessary to ensure safety of local traffic. ANR would minimize the amount of heavy traffic, including oversize/overweight loads, during the peak travel times of the day. During the school year, ANR has committed to work with the local school districts to minimize heavy traffic during school bus pick-up and drop-off times in the vicinity of the Project.

Prior to construction, ANR and local officials would discuss ways to minimize short-term, localized impacts on roadways. ANR would work with state and local agencies to obtain all necessary permits for temporary construction-related impacts on roadways. Further, ANR would direct its construction contractors to comply with local road weight limitations and restrictions and remove any soil that falls from equipment onto roadway surfaces.

Table 5 identifies the number of average daily round trips from each site, the main access road and average daily traffic count, and the average increase in traffic that would occur during construction. It is estimated there would be a maximum of 120 trips per day along each of the transportation routes during the peak of construction; therefore, the average daily traffic count for the roadways in the Project vicinity would increase between 2.4 and 43 percent. The maximum number of cars associated with construction of the Project would not exceed the capacity of any of the roads used by the Project.

Facility	Main Access Roadway	Capacity of Roadway (ADT)	Maximum Percent Increase	Percent Capacity
Turkey Creek Compressor Station, MLV 2, and MLV 3	US 167 in Evangeline Parish	24,200 (2,812)	4.2%	11.6%
Turkey Creek Compressor Station and MLV 3	Onyx Road at US 167 in Evangeline Parish	1,000 (279)	43.0%	27.9%
Turkey Creek Compressor Station, MLV 2, and MLV 3	LA 13 in Evangeline Parish	24,200 (4,878)	2.4%	20.16%
MLV 2	Bond Road at LA 13 in Evangeline Parish	1000 (840)	14.0%	84.0%

Impacts from construction and operational activities include potential traffic delays associated with workers arriving on site and delivery of construction equipment and materials. Two new workers would be hired to operate the facilities, but any increases in operational traffic would be negligible.

Because of the limited size and duration of construction and ANR’s proposed traffic management strategies (including use of the roads outside of peak periods), we conclude impacts on transportation would be temporary, and not significant.

7.3. HOUSING

Construction of the Project would require a peak workforce of about 100 workers, including construction and inspection personnel, within the Project area. ANR estimates it would hire about 40 percent of workers from outside the Project area and 30 percent of those would provide their own housing units (e.g., Recreational Vehicle). Therefore, up to 28 workers from outside the Project area may require temporary housing during the construction period. In addition to there being an estimated 3 hotels and motels and 3 recreational vehicle parks within the Evangeline Parish, the U.S. Census Bureau estimates that there were 720 vacant housing units available for rent in the Project area. In addition, there are 36 and 15 hotels/motels and 12 and 5 recreational vehicle parks within Rapides and Allen Parishes, respectively, within driving distance to the Project area (under 60 miles). A total of 5,260 rooms are available within driving distance to the Project Area.

Based on the number of available rental units and hotels and motels in the Project area, along with other recreation vehicle parks in the Project area, we conclude that the presence of the construction crews could cause a minor, temporary impact on housing in the Project area. Given the availability of housing, the addition of 2 new workers to the existing workforce would have only a negligible effect on housing in the Project area.

7.4. PUBLIC SERVICES

ANR identified 23 community medical services facilities, 7 emergency medical services facilities, 29 police services facilities, and 40 fire services facilities within the parishes closest to the Project area (see table 6). ANR maintains a program of coordination with public authorities, including fire departments and emergency providers, for all facility locations. Although the need for medical, fire, and police services may increase slightly due to the 40 workers who would temporarily relocate to the Project area during the 14-month construction period, based on the information above, we conclude adequate public safety services exist in the Project area to handle any Project-related emergency event and no significant impacts on these resources would occur as a result of the Project.

Table 6						
Existing Public Services and Facilities in the Vicinity of the Project Area						
Parish	Community Medical Services	Emergency Medical Services	Police Services	Fire Services	Schools	Major Transportation Routes
Allen Parish	5	1	5	5	11	HWY 165, HWY 10
Evangeline Parish	3	1	5	4	12	HWY 167 / HWY 13, I-49
Rapides Parish	15	5	19	31	49	HWY 71, HWY 165, I-49
Nearest Emergency Service Facility to the Project (Distance from Project [miles])	Oakdale Community Hospital (15.51)	Oakdale Community Hospital (15.51)	Pine Prairie Police Department (10.78)	Ward 5 Fire District (4.26)	N/A	N/A
N/A – Not applicable Source: Google Earth, 2020						

There are 72 schools near the Project area. It is anticipated that 40 people (during peak construction) would temporarily relocate for the Project. However, most non-local workers are not expected to be accompanied by their families. Therefore, due to the number of schools available in Allen, Evangeline, and Rapides Parishes and the limited number of school-aged children expected to relocate to the Project vicinity, only temporary and no significant impacts on class size or school enrollment are anticipated as a result of the Project.

7.5. ECONOMY AND TAX REVENUE

The Project would contribute to the local and regional economy directly and indirectly through spending by construction workers, purchases of goods and materials, and from taxes collected on purchases, payroll, and property. ANR estimates the total construction payroll for the Project to be approximately \$26.8 million; local expenditures for Project construction materials and fuel to be approximately \$3.7 million; and local expenditures by construction personnel for goods, services, and entertainment to be approximately \$2.4 million. Assuming that the local expenditures on construction materials, fuel, goods, services, and entertainment would occur equitably between Allen, Evangeline, and Rapides Parishes, the local sales tax revenue resulting from the construction of the Project is estimated to be approximately \$566,283 total. In addition, when in service, the Project would pay approximately \$500,000 per year in property taxes to the parish. Therefore, the Project would have a positive, although minor, impact on the local economy.

7.6. ENVIRONMENTAL JUSTICE

As part of our NEPA review, we consider the impacts on human health and the environment of the local populations, including impacts that would be disproportionately high and adverse for minority and low-income populations. A disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population. Items considered in the evaluation of environmental justice include human health and environmental hazards, the natural physical environment, and associated social, economic, and cultural factors.

According to the CEQ environmental justice guidance under NEPA (CEQ 1997) and *Promising Practices for EJ Methodologies in NEPA Reviews* (USEPA 2016), minorities are those groups that include American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Minority populations are defined where either: (a) the minority population of the affected area exceeds 50 percent; or (b) the minority population of the affected area is meaningfully greater (10 percent greater) than the minority population percentage in the general population or other appropriate unit of geographic analysis. The guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Low-income populations are identified as block groups where the income is less than that of the county. According to U.S. Census Bureau information, low income and minority populations exist within the Project area.

Table 7 below identifies the demographic characteristics of the State of Louisiana, the parish affected by the Project, and census block groups within 1 mile of Project facilities. Census block group data in this table is compared to the reference parish-wide data to determine the presence or absence of environmental justice populations. None of the census block groups within 1 mile of Project have minority populations that are higher than 50 percent of the population nor are the block group minority populations meaningfully greater than the minority population of the state or of the parish as a whole. The percentage of low-income individuals living in all three block groups within 1 mile of the Project's major aboveground facilities are greater than the state and parish levels; therefore, they would be considered environmental justice populations.

As described throughout the EA, potentially adverse environmental effects on surrounding communities associated with the Project, including environmental justice communities, would be minimized and/or mitigated, as applicable. As discussed in section B.5.6, the Project would be constructed in a predominately rural area with the

Table 7

Minority Populations and Poverty Levels within 1 mile of the Alberta XPress Project Area

State/Parish/ Census Tract/ Block Group	Total Population	White, not Hispanic or Latino	African- American	Hispanic or Latino	Asian	American Indian and Alaskan Native	Native Hawaiian and Pacific Islander	Two or More Races	Minority Population	Persons Below Poverty Level
Louisiana	4,663,461	61.1%	12.3%	17.8%	5.4%	0.7%	0.0%	2.4%	38.9%	19.4%
Evangeline Parish	33,443	66.7%	27.1%	3.7%	3.5%	0.2%	0.0%	1.7%	33.3%	27.5%
<i>Census Tract 9502</i>										
Block Group 1		97%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	39%
Block Group 2		96%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	37%
<i>Census Tract 9503</i>										
Block Group 2		72.0%	21.0%	7.0%	0.0%	0.0%	0.0%	0.0%	28.0%	59%

Sources: U.S. Census Bureau 2019; Bold indicates a statistic that exceeds threshold for the given population.

nearest sensitive visual area (a residence) about 1.4 miles from the Turkey Creek Compressor Station. In addition, ANR would leave a band of existing trees and underbrush in place around the entire permanent facility boundary providing screening. Work at the existing MLV 2 or MLV 3 would not result in new permanent impacts or expansion of the facility fence lines; therefore, ANR does not anticipate additional visual impacts at these locations. Based on this information, the Project would not impact visual resources to environmental justice communities in the Project area.

Area residents may be affected by minor traffic delays during construction of the Project (the addition of an average of approximately 75 trips per day on nearby roadways). However, with ANR's commitment to implementing mitigation measures to alleviate any potential road congestion during construction in consultation with local officials, we conclude these impacts would be minor and temporary.

Potential pollution emissions from the Project, when considered with background concentrations, would be below the National Ambient Air Quality Standards (NAAQS), which are designated to protect public health. Therefore, we conclude the Project would not have significant adverse air quality impacts on the environmental justice populations in the Project area. Air quality impacts are discussed in more detail within section B.8.

Temporary construction impacts on residences and businesses in proximity to construction work areas could include noise. As discussed in section B.9., noise levels resulting from construction would vary over time and would depend upon the number and type of equipment operating, the level of operation, and the distance between sources and receptors. Alternatively, operational noise associated with the new compressor station would be persistent; however, it would not be perceptible from the closest noise sensitive areas (NSAs). ANR anticipates the need for blowdown activities at one of its two MLV facilities and has identified MLV 3 as the preferred MLV blowdown location due to its distance from NSAs. Blowdowns would occur during construction only, last approximately 3 hours each, and be conducted between 7:00 am and 7:00 pm. The nearest NSA to MLV 2 is a residence 87 feet east of the Project area; no NSAs are within 1 mile of MLV 3. If a blowdown at MLV 2 becomes necessary, ANR would notify all landowners within 0.5 mile of MLV 2 at least one week prior to the blowdown, and ANR would either install temporary noise barriers or would offer temporary relocation or equivalent compensation to landowners within 0.5 mile. Impacts on environmental justice populations may be disproportionately high and adverse should blowdowns be perceptible from any nearby residences as that adverse impact would be predominantly borne by an environmental justice population. However, with ANR's proposed mitigation measures, the Project would not result in significant noise impacts on local residents, including environmental justice populations.

As described throughout this EA, the proposed Project would not have a significant adverse impact on the environment or on individuals living in the Project area, including environmental justice populations. Based on our analysis, we conclude that impacts on environmental justice populations (low-income populations) may be disproportionately high and adverse as impacts in the Project area would be predominantly borne by environmental justice populations. However, as previously described, impacts on environmental justice populations would be mostly temporary and less than significant.

8.0 AIR QUALITY

The term air quality refers to relative concentrations of pollutants in the ambient air. The subsections below describe concepts that are applied to characterize air quality and to determine the significance of increases in air pollution.

Air quality in the Project area would be affected by construction and operation of the Project. Although air emissions would be generated by Project construction activities, the majority of air emissions associated with the Project would result from operation of the new Turkey Creek Compressor Station.

8.1 EXISTING ENVIRONMENT

The Project is within Evangeline Parish, Louisiana. The Project area has an average daily temperature range between 55.5 degrees Fahrenheit (°F) and 77.5°F, an average annual precipitation of about 56 inches, and wind speeds averaging 6 miles per hour (National Climatic Data Center, 2020).

Ambient air quality is protected by the Clean Air Act (CAA) of 1970, as amended in 1977 and 1990. The USEPA oversees the implementation of the CAA and establishes NAAQS to protect human health and welfare.¹ NAAQS have been developed for seven “criteria air pollutants,” including nitrogen dioxide (NO₂), carbon monoxide (CO), ozone, sulfur dioxide (SO₂), particulate matter less than or equal to 2.5 microns in aerodynamic diameter (PM_{2.5}), particulate matter less than or equal to 10 microns in aerodynamic diameter (PM₁₀), and lead, and include levels for short-term (acute) and long-term (chronic) exposures. The NAAQS include two standards, primary and secondary. Primary standards establish limits that are considered to be protective of human health and welfare, including sensitive populations such as children, the elderly, and asthmatics. Secondary standards set limits to protect public welfare, including protection against reduced visibility and damage to crops, vegetation, animals, and buildings.

¹ The current NAAQS are listed on USEPA's website at <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

The USEPA, and state and local agencies have established a network of ambient air quality monitoring stations to measure concentrations of criteria pollutants across the U.S. The data are then averaged over a specific time period and used by regulatory agencies to determine compliance with the NAAQS and to determine if an area is in attainment (criteria pollutant concentrations are below the NAAQS), nonattainment (criteria pollutant concentrations exceed the NAAQS), or maintenance (area was formerly nonattainment and is currently in attainment). Evangeline Parish is in attainment with the NAAQS criteria pollutants.

Greenhouse gases (GHG) occur in the atmosphere both naturally and as a result of human activities, such as the burning of fossil fuels. Carbon dioxide (CO₂) is the primary GHG emitted during fossil-fuel combustion, while smaller amounts of methane and nitrous oxide are GHGs that are also emitted. 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 primary GHGs that would be emitted by the Project are CO₂, methane, and nitrous oxide. During construction and operation of the Project, these GHGs would be emitted from the majority of construction and operational equipment, as well as from blowdowns and fugitive methane leaks from the pipeline and aboveground facilities.

Emissions of GHGs are typically quantified and regulated in units of carbon dioxide equivalents (CO₂e). The CO₂e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO₂. Thus, CO₂ has a GWP of 1, methane has a GWP of 25, and nitrous oxide has a GWP of 298.²

8.2 REGULATORY REQUIREMENTS

The provisions of the CAA that are applicable to the Project are discussed below. The estimated potential operational emissions for the Turkey Creek Compressor Station are shown in table 9.

New Source Performance Standards

The USEPA promulgates New Source Performance Standards (NSPS) for new, modified, or reconstructed sources to control emissions to the level achievable by the best-demonstrated technology for stationary source types or categories, as specified in the

² These GWPs are based on a 100-year time period. We have selected their use over other published GWPs for other timeframes because these are the GWPs the EPA has established for reporting of GHG emissions and air permitting requirements. This allows for a consistent comparison with these regulatory requirements.

applicable provisions discussed below. NSPS also establishes fuel, monitoring, notification, reporting, recordkeeping, and testing requirements.

NSPS Subpart JJJJ sets emissions standards for nitrogen oxides (NO_x), CO, and volatile organic compounds (VOC) for emergency and non-emergency engines. Subpart JJJJ would apply to the new generator proposed at the Turkey Creek Compressor Station.

NSPS Subpart KKKK sets emissions limitations for NO_x and limits the sulfur content of fuel that is combusted from stationary combustion turbines with a heat input rate at peak load of 10 million British Thermal Units (MMBtu). The Project involves the installation of a new stationary combustion turbine and would therefore trigger the requirements of Subpart KKKK.

ANR would comply with the all applicable NSPS standards and requirements.

National Emission Standards for Hazardous Air Pollutants

The 1990 CAA Amendments established a list of 189 hazardous air pollutants (HAPs), resulting in the promulgation of National Emission Standards for Hazardous Air Pollutants. HAPs are 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. The National Emission Standards for Hazardous Air Pollutants regulate HAP emissions from specific source types at major or area sources of HAPs by setting emission limits, monitoring, testing, record keeping, and notification requirements. The Turkey Creek Compressor Station would have the potential to emit less than the combined HAP total threshold of 25 tons per year and single HAP threshold of 10 tons per year, and is therefore considered an area (and not major) source of HAPs. The applicable regulations for area sources are described below.

Subpart ZZZZ applies to the new emergency generator proposed for the Turkey Creek Compressor Station. ANR would comply with Subpart ZZZZ by meeting the requirements of NSPS JJJJ.

8.3 STATE AIR QUALITY REGULATIONS

ANR would be required to obtain a state operating permit for the Turkey Creek Compressor Station from the LDEQ. Specific requirements for state operating permits are listed in the Louisiana Administrative Code Title 33, Part III. ANR submitted the state air quality permit application to the state in April 2020.

8.4 CONSTRUCTION EMISSIONS IMPACTS AND MITIGATION

Project construction would result in temporary, localized emissions that would last the duration of construction activities (i.e., about 14 months). Heavy equipment and trucks, delivery vehicles, and construction workers commuting to and from work areas would generate exhaust emissions through the use of diesel or gasoline engines. ANR would dispose of all cleared vegetation and would not conduct open burning.

Construction activities, such as land clearing and grading, ground excavation and soil disturbance, and driving on unpaved roads, would also result in the temporary generation of fugitive dust. The amount of dust generated would be a function of construction activity, soil type, soil moisture content, wind speed, precipitation, vehicle traffic and types, and roadway characteristics. Emissions would be greater during dry periods and in areas of fine-textured soils subject to surface activity.

ANR estimated construction emissions based on the fuel type and anticipated frequency, duration, capacity, and levels of use of various types of construction equipment. Construction emissions were estimated using 40 CFR Part 98, Subpart W, the USEPA's MOVES model, and AP-42 guidance. Table 8 below provides the total Project construction emissions, including exhaust emissions and fugitive dust from on-road and off-road construction equipment and vehicles, exhaust emissions from construction worker vehicles for commuting, vehicles used to deliver equipment/materials to the site, and blowdowns during construction/commissioning of the new compressor station.

Activity	CO	NO_x	VOC	PM₁₀	PM_{2.5}	SO₂	HAPS	CO_{2e}
Non-Road Equipment	3.36	5.45	0.68	0.87	0.87	0.41	0.10	2,793.6
On-Road Equipment and Vehicles	20.16	7.23	1.21	0.28	0.28	0.04	0.32	2,607.7
Fugitive Dust	--	--	--	2.56	0.38	--	--	--
Roadway Fugitive Dust	--	--	--	0.63	0.31	--	--	--
Blowdown Emissions			0.51					1,256
Total Project Emissions	23.52	12.68	2.4	4.33	1.84	0.45	0.42	6,657.3

Construction emissions shown in table 8 are not expected to result in a violation or degradation of ambient air quality standards. To minimize fugitive dust emissions, ANR would implement the following measures contained within its Fugitive Dust Control Plan:

- apply water to exposed soils during construction operations, including road grading or land clearing;
- maintain roadways and clean streets to remove soil transported by construction activities;
- maintain equipment properly;
- cover open-bodied trucks when transporting materials; and
- minimize soil disturbance.

Construction emissions would occur over the duration of construction activity. Construction emissions would be relatively minor and would result in short-term, localized impacts in the immediate vicinity of construction work areas. With ANR's proposed mitigation measures and the temporary nature of construction activities, we conclude air quality impacts from construction would be limited and would not result in significant impacts on the local or regional air quality.

8.5 OPERATIONAL EMISSIONS IMPACTS AND MITIGATION

The Project would result in operational air emissions at the Turkey Creek Compressor Station. ANR proposes to install the following new equipment at the compressor station:

- one new 15,219-hp Solar Turbine Mars 100 natural gas-fired compressor turbine³;
- one new 880 hp Waukesha emergency generator;
- one new fuel gas process heater (0.47 MMBtu per hour);
- 30 space heaters (0.0725 MMBtu per hour each);
- one new 2,000-gallon pipeline liquids storage tank; and
- one new 1,200-gallon wastewater storage tank.

Table 9 below summarizes the operational emissions from the proposed Turkey Creek Compressor Station.

Blowdowns (gas venting) can occur during initial construction/ testing, operational startup and shutdown, maintenance activities, and during emergency purposes. Fugitive emissions are minor leaks that would occur at various piping components, fittings, and aboveground equipment, and from operation and maintenance activities at the compressor station. Table 9 provides estimates of compressor unit blowdowns and fugitive emissions (equipment and pipeline leaks). Blowdowns would not occur at MLV 2 or MLV 3 during Project operation.

³ Rated horsepower presented here versus horsepower at International Standards Organization conditions

Unit	NO_x	CO	VOC	PM₁₀/PM_{2.5}	SO₂	CO_{2e}	Single HAP^a	Total HAPS
Solar Mars 100 Turbine	31.04	91.16	4.59	3.73	0.40	66,114	0.40	.58
Waukesha Emergency Generator	0.19	0.39	0.10	0.003	0.001	40	0.02	0.03
Fuel Gas Heater	0.20	0.17	0.01	0.02	0.001	239	0.0001	0.004
Space Heaters	0.93	0.78	0.05	0.07	0.01	1,116	0.001	0.02
Pipeline Liquids Tank	--	--	0.04	--	--	--	--	--
Wastewater Tank	--	--	0.03	--	--	--	--	--
Equipment Leaks from CS Equipment	--	--	24.80	--	--	61,176	--	--
Venting/blowdowns	--	--	2.00	--	--	4,936	--	--
Pipeline Leaks	--	--	--	--	--	37		
Total	32.37	92.50	31.62	3.82	0.41	133,658	0.42	0.63
^a formaldehyde								

ANR would minimize operational emissions through the use of advanced dry-low NO_x combustion controls (SoLoNox). These controls reduce NO_x and peak combustion temperatures through the use of a lean, premixed air/fuel mixture and advanced combustion controls.

In order to minimize fugitive emissions, ANR participates in the USEPA's Methane Challenge Program and the USEPA Natural Gas Star Program to share best practices for methane reduction technologies. As part of these programs, ANR submits methane information annually to the ONE Future Coalition and the Methane Challenge Program. Additionally, ANR does leak surveys per Part 192 of 49 CFR (see section B.10) for all compressor stations and storage well locations and compressor rod packing replacements, as needed.

8.5.1 Air Quality Modeling

ANR completed an air quality dispersion model (model) to determine the impacts of emissions from the Turkey Creek Compressor Station on local and regional air quality. The analysis was conducted using the USEPA AERMOD model and methodology outlined in USEPA guidance. The model used meteorological data from the years 2014 to 2018. The highest predicted concentration from these years was selected for

comparison to the NAAQS. The model estimates the maximum predicted concentrations of criteria pollutants emitted from the compressor station using conservative assumptions. Background concentrations from nearby air monitors were then added to the modeled concentrations and the total was compared to the NAAQS. The model results are provided below in table 10.

Pollutant	Averaging Period	Existing Background (µg/m³)	Project Impact Concentration (µg/m³)	Combined Background and Maximum Modeled (µg/m³)	NAAQS (µg/m³)
CO	1-hour	3,306.0	18.92	3,324.92	40,000
	8-hour	1,436.4	5.78	1,442.18	10,000
NO ₂	1-hour	69.18	10.34	79.52	188
	Annual	11.74	0.73	12.47	100
PM _{2.5}	24-Hour	17.4	0.25	17.65	35
	Annual	7.8	0.08	7.86	12
PM ₁₀	24-Hour	72.2	0.33	72.53	150
SO ₂	1-Hour	40.87	7.54	48.41	196
	3-hour	50.04	10.38	60.42	1,300

The results in table 10 indicate that the combined total of existing background and modeled concentrations are less than the applicable NAAQS for all pollutants. Therefore, we conclude operation of the Project would not cause or significantly contribute to a degradation of ambient air quality.

9.0 NOISE

Noise is generally defined as sound with intensity greater than the ambient or background sound pressure level. Construction and operation of the Project would affect overall noise levels in the Project area. The magnitude and frequency of environmental noise may vary considerably over the course of the day, throughout the week, and across seasons, in part due to changing weather conditions and the effects of seasonal vegetative cover. Two measures that relate the time-varying quality of environmental noise to its known effect on people are the 24-hour equivalent sound level (L_{eq}) and day-night sound level (L_{dn}). The L_{eq} is an A-weighted sound level containing the same energy as the instantaneous sound levels measured over a specific time period. Noise levels are perceived differently, depending on length of exposure and time of day. The L_{dn} takes into account the duration and time the noise is encountered. Specifically, the L_{dn} is the L_{eq} plus a 10 decibel on the A-weighted scale (dBA) penalty added to account for

people's greater sensitivity to nighttime sound levels (typically considered between the hours of 10:00 pm. and 7:00 am). The A-weighted scale is used to assess noise impacts because human hearing is less sensitive to low and high frequencies than mid-range frequencies. The human ear's threshold of perception for noise change is considered to be 3 dBA; 6 dBA is clearly noticeable to the human ear; and 10 dBA is perceived as a doubling of noise (Bies and Hansen, 1988).

9.1. FEDERAL NOISE REGULATIONS

In 1974, the USEPA published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (USEPA, 1974). This document provides information for state and local governments to use in developing their own ambient noise standards. The USEPA has indicated that an L_{dn} of 55 dBA protects the public from indoor and outdoor activity interference. We have adopted this criterion and use it to evaluate the potential noise impacts from the proposed Project at NSAs. NSAs are defined as homes, schools, churches, or any location where people reside or gather. FERC requires that the noise attributable to any new compressor engine or modifications during full load operation not exceed an L_{dn} of 55 dBA at any NSAs. Due to the 10 dBA nighttime penalty added prior to the logarithmic calculation of the L_{dn} , for a facility to meet the 55 dBA L_{dn} limit, it must be designed such that actual constant noise levels on a 24-hour basis do not exceed 48.6 dBA L_{eq} at any NSA.

9.1.1. Ambient Noise Conditions

ANR's noise consultant conducted a preconstruction sound survey in April 2020 to characterize the existing ambient sound levels in the vicinity of the surrounding NSAs near the Turkey Creek Compressor Station. The nearest NSA to the Turkey Creek Compressor Station is 1.4 miles west. The results of the ambient sound survey are presented in table 11.

9.2. CONSTRUCTION NOISE IMPACTS AND MITIGATION

Noise would be generated during construction of the Project. Construction activities at the proposed compressor station site could last up to 14 months. While individuals in the immediate vicinity of the construction activities would experience an increase in noise, this effect would be temporary and local. To minimize construction noise, ANR would conduct the majority of construction activities between the hours of 7:00 am to 7:00 pm, Monday to Saturday. However, ANR states that weather conditions, site conditions, specialized construction techniques, emergencies, or other atypical circumstances may necessitate work on Sundays and holidays. In addition, ANR may conduct limited nighttime construction activities, including x-ray testing, hydrostatic testing, inside electrical work, and commissioning work. In the event that nighttime

construction occurs, ANR estimated the predicted noise levels due to 24-hour construction at the compressor station, as shown below in table 11. Daytime-only construction would result in overall noise levels that are slightly less than those shown in table 11, and therefore, table 11 represents a more conservative estimate of noise due to construction during both the daytime and nighttimes. ANR would notify FERC in advance of nighttime work, if it becomes necessary.

NSA	Type	Distance and Direction from Facility	Existing Ambient Sound Levels (dBA L_{dn})	Predicted Sound Levels Due to Construction (dBA L_{dn})	Ambient and Predicted Total Sound Levels (dBA L_{dn})	Predicted Temporary Increase in L_{dn} (dBA)
NSA 1	residence	1.4 miles west	49.7	45.8	51.2	1.5
NSA 2	residence	1.6 miles southwest	48.5	42.6	49.5	1
NSA 3	residence	1.7 miles northwest	54.1	33.1	54.1	0
NSA 4	residence	2.4 miles southeast	44.8	33.1	45.1	0.3

Table 11 above indicates that the Project’s construction activities would not result in noise levels greater than 48.6 dBA L_{eq} and would likely not result in perceptible noise impacts at NSAs. Therefore, ANR does not propose any mitigation measures to minimize construction noise.

ANR plans to conduct work at its existing MLV 2 or MLV 3 on both of ANR’s existing 501 pipelines to accommodate blowdowns during construction at one of the two MLVs; these blowdowns would occur during construction to accommodate the new compressor station. Each blowdown would last approximately 3 hours each and would be conducted between 7:00 am and 7:00 pm. The nearest NSA to MLV 2 is a residence 87 feet east of the Project area; no NSAs are within 1 mile of MLV 3. ANR anticipates the need for blowdown activities at only one of its two MLV facilities and has identified MLV 3 as the preferred MLV blowdown location due to its distance from NSAs and proximity to the Turkey Creek Compressor Station. ANR estimates that noise levels due to a blowdown at MLV 2 and MLV 3 would result in sound levels of 91.8 dBA L_{eq} and 44.8 dBA L_{eq} at the closest NSAs at MLV 2 and MLV 3, respectively. If a blowdown at MLV 2 becomes necessary, ANR would notify all landowners within 0.5 mile of MLV 2 at least one week prior to the blowdown, and to minimize noise impacts, would either

install temporary noise barriers or would offer temporary relocation or equivalent compensation to landowners within 0.5 mile. Additionally, ANR would notify FERC prior to the blowdown and provide information on what mitigation measures were selected to reduce noise impacts. Given the distance to NSAs from MLV 3, ANR does not propose any noise mitigation measures during the blowdowns at that location.

Based on the temporary nature of construction activities, the predicted sound levels due to construction, the distance to the nearest NSAs, and ANR's mitigation measures, we conclude that construction noise would result in temporary and not significant noise impacts on residents or the surrounding communities.

9.3. OPERATION NOISE IMPACTS AND MITIGATION

The proposed compressor station would generate noise on a continuous basis (i.e., up to 24 hours per day) when operating. The noise impact associated with the compressor station would attenuate with distance. Noise generated at the compressor station would result primarily from the following operational noise sources:

- turbine, turbine exhaust, turbine inlet air system, and compressor casing;
- lube oil/auxiliary coolers and gas aftercoolers; and
- aboveground station piping.

The results of the ambient (existing) sound survey completed by ANR were combined with the predicted noise impacts from the proposed new compressor station equipment to determine the noise impacts from operation of the compressor station at each NSA. The noise survey also incorporates noise control measures for operational noise. Specific noise control measures include enclosing the compressor turbines in a new building built to specifications using sound transmission loss wall and roof systems; exhaust silencers; air intake filter-silencers; and insulated roll-up doors, among others. ANR anticipates it would install all of the noise control measures recommended in the noise analysis. The results of the operational noise analysis are provided below in table 12.

Table 12						
Noise Analysis for Operations at the Turkey Creek Compressor Station						
NSA	Type	Distance and Direction from Facility	Existing Ambient Sound Levels (dBA L_{dn})	Estimated Contribution of Station Equipment (dBA L_{dn})	Total Sound Levels (Ambient and Estimated Contribution) (dBA L_{dn})	Increase Above Existing Ambient Levels (L_{dn} dBA)
NSA 1	residence	1.4 miles west	49.7	42.4	50.4	0.7
NSA 2	residence	1.6 miles southwest	48.5	39.0	49.0	0.5
NSA 3	residence	1.7 miles northwest	54.1	32.9	54.1	0.0
NSA 4	residence	2.4 miles southeast	44.8	33.7	45.1	0.3

The operational noise analysis in table 12 indicates that operation of the Turkey Creek Compressor Station, including both the contribution of station equipment and total noise levels including existing ambient levels, would be less than 55 dBA at NSAs.

Blowdown or venting events generate noise at compressor stations during normal maintenance activities or emergencies and occur when pressure in the compressor casing, piping, or the entire station must be released in a controlled manner through a vent silencer. Venting events cause a temporary increase in sound levels that would typically last for about up to 5 minutes. Blowdown events during Project operation would be of much shorter duration than during Project construction due to the smaller volume of pipeline capacity to be vented during operation than construction. ANR estimated the sound levels due to venting in table 13 below; ANR used nighttime average levels, when background sound levels are typically lower, to provide a more conservative assessment.

NSA	Type	Distance and Direction from Facility	Existing Ambient Nighttime Sound Levels (L_{eq} dBA)	Estimated Contribution of Venting (L_{eq} dBA)	Total Sound Levels (Ambient and Estimated Contribution) (L_{eq} dBA)	Increase Above Existing Ambient Levels (dBA)
NSA 1	residence	1.4 miles west	43.2	42.8	46.0	2.8
NSA 2	residence	1.6 miles southwest	40.7	40.8	43.8	3.1
NSA 3	residence	1.7 miles northwest	47.3	33.3	47.5	0.2
NSA 4	residence	2.4 miles southeast	37.0	37.9	40.5	3.5

Because of the short duration and infrequent occurrence of venting events, we do not believe that these events would result in significant noise impacts during Project operation.

While the analysis above shows that noise impacts on the NSAs from the new compressor station would be below our 55 dBA requirement, to verify compliance with the FERC’s noise standards, **we recommend that:**

ANR should file with the Secretary of the Commission (Secretary) noise surveys for the Turkey Creek Compressor Station no later than 60 days after placing the station into service. If a full power load condition noise survey is not possible, ANR should file an interim survey at the maximum possible power load within 60 days of placing the station into service and file the full power load survey within 6 months. If the noise attributable to operation of all equipment at the station under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, ANR should:

- a. file a report with the Secretary, for review and written approval by the Director of OEP, or the Director’s designee, on what changes are needed;**
- b. install additional noise controls to meet that level within 1 year of the in-service date; and**
- c. confirm compliance with this requirement by filing a second full power load noise survey with the Secretary no later than 60 days after it installs the additional noise controls.**

Based on the estimated sound levels at the Turkey Creek Compressor, the sound mitigation measures proposed by ANR, and the recommendation stated above, we

conclude that the proposed Project would not result in significant noise impacts on residents or the surrounding communities.

10.0 RELIABILITY AND SAFETY

The pressurization of natural gas at the proposed aboveground facilities involves some incremental risk to the public due to the potential for an accidental release of natural gas. The greatest hazard is a fire or explosion following a major pipeline rupture.

Methane, the primary component of natural gas, is colorless, odorless, and tasteless. It is not toxic, but is classified as a simple asphyxiate, possessing a slight inhalation hazard. If breathed in high concentration, oxygen deficiency can result in serious injury or death. Methane has an auto-ignition temperature of 1,000 °F and is flammable at concentrations between 5.0 and 15.0 percent in air. An unconfined mixture of methane and air is not explosive; however, it may ignite and burn if there is an ignition source. A flammable concentration within an enclosed space in the presence of an ignition source can explode. It is buoyant at atmospheric temperatures and disperses rapidly in air.

10.1. SAFETY STANDARDS

The DOT is mandated to prescribe minimum safety standards to protect against risks posed by natural gas facilities under Title 49 of the U.S. Code, Chapter 601. The DOT's Pipeline and Hazardous Materials Safety Administration administers the national regulatory program to ensure the safe transportation of natural gas and other hazardous materials by pipeline. It develops safety regulations and other approaches to risk management that ensure safety in the design, construction, testing, operation, maintenance, and emergency response of natural gas facilities. Many of the regulations are written as performance standards, which set the level of safety to be attained and allow the operator to use various technologies to achieve safety. The Pipeline and Hazardous Materials Safety Administration's safety mission is to ensure that people and the environment are protected from the risk of incidents. This work is shared with state agency partners and others at the federal, state, and local level.

10.1.1. Station Design

The piping and aboveground facilities associated with the proposed Project would be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 CFR 192. The regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and

failures. The DOT specifies material selection and qualification; minimum design requirements; and protection from internal, external, and atmospheric corrosion.

Part 192 of 49 CFR establishes safety guidelines for the design and construction of compressor stations in addition to pipeline safety standards. Part 192 specifies that compressor stations must have an emergency shutdown system that can be manually operation from at least two points. In addition, the compressor station would be equipped with a full range of automatic emergency detection and shutdown systems, including hazardous gas and fire detection alarm systems. These safety and emergency systems would be monitored on a 24-hour basis by ANR's Supervisory Control and Data Acquisition system.

Part 192.163 requires the location of each main compressor building of a compressor station be on a property under the control of the operator. The station must also be far enough away from adjacent property, not under control of the operator, to minimize the possibility of fire spreading to the compressor building from structures on adjacent properties. Part 192.163 also requires each building on a compressor station site be made of specific building materials and to have at least two separate and unobstructed exits. The station must be in an enclosed fenced area and must have at least two gates to provide a safe exit during an emergency.

10.2. EMERGENCIES

The DOT prescribes the minimum standards for operating and maintaining pipeline and aboveground natural gas facilities, including the requirement to establish a written plan governing these activities. Each operator is required to establish an emergency plan that includes procedures to minimize the hazards of a natural gas emergency. Key elements of the plan include procedures for:

- receiving, identifying, and classifying emergency events, gas leakage, fires, explosions, and natural disasters;
- establishing and maintaining communications with local fire, police, and public officials, and coordinating emergency response;
- emergency system shutdown and safe restoration of service;
- making personnel, equipment, tools, and materials available at the scene of an emergency; and
- protecting people first and then property, and making them safe from actual or potential hazards.

The DOT requires that each operator establish and maintain liaison with appropriate fire, police, and public officials to learn the resources and responsibilities of each organization that may respond to a natural gas pipeline or facility emergency, and to

coordinate mutual assistance. ANR must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas emergency and report it to the appropriate public officials. ANR would provide the appropriate training to local emergency service personnel before the Project is placed in service.

With continued compliance with DOT safety standards, operation, and maintenance requirements, we conclude the Project would be constructed and operated safely.

11.0. CUMULATIVE IMPACTS

In accordance with NEPA and with FERC policy, we evaluated the potential for cumulative effects of the Project. Cumulative impacts represent the incremental effects of a proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of the agency or party undertaking such other actions. Cumulative impacts can result from individually minor, but collectively significant actions, taking place over time.

This cumulative effects analysis generally follows a method set forth in relevant CEQ and USEPA guidance and focuses on potential impacts from the Project on resource areas or issues where the incremental contribution would be potentially significant when added to the potential impacts of other actions. To avoid unnecessary discussions of insignificant impacts and projects and to adequately address and accomplish the purposes of this analysis, an action must first meet the following three criteria to be included in the cumulative analysis:

- affect a resource potentially affected by the Project;
- cause this impact within all, or part of, the Project area (i.e. geographic scope); and
- cause this impact within all, or part of, the time span for the potential impact from the Project.

Actions outside the Project's timeframe and geographic scope, as defined below in table 14, were generally not evaluated because their potential to contribute to a cumulative impact would diminish with increasing distance and time from the Project. In this analysis, we consider the impacts of past projects as part of the affected environment (environmental baseline), which was described and evaluated in the preceding analysis. However, present effects of past actions that are relevant and useful are also considered.

Table 14	
Geographic Scope of Potential Impact of the Project	
Resource	Geographic Scope
Soils, Geology	Limits of Project disturbance
Water Resources	Watershed boundary (HUC-12)
Vegetation, Wildlife, Fisheries, and Special Status Species	HUC-12
Land Use	1 mile
Visual Resources	For aboveground facilities, distance that the tallest feature at the planned facility would be visible from neighboring communities. For pipelines, 0.5 mile and existing visual access points.
Air Quality	Construction: 0.25 mile Operation: 31.07 miles (50 kilometers)
Cultural Resources	Area of potential effect
Socioeconomics	Affected counties and municipalities
Noise	Construction: 0.25 mile Operation: 1 mile

The EA analyzed the Project impacts on geology and soils; water resources; vegetation and wildlife; cultural resources; land use and visual resources; socioeconomics; and air quality and noise. As described earlier in section B of this EA, the Project-related construction and operational impacts would not impact geological resources, wetlands, fisheries, cultural resources, visual resources, or public land or recreation areas. Therefore, the Project would not contribute to cumulative impacts within the geographic and temporal scope of these resources and they will not be discussed further. Below, we assess the potential for cumulative impacts on soils, water resources, vegetation, wildlife, land use, socioeconomics, air quality, and noise.

The following describes the geographic scope and rationale for our cumulative impact analysis:

- Impacts on soils are generally localized to the construction workspace because of implementation of mitigation measures, including erosion and sediment controls, among others.
- Impacts on water resources, vegetation, and wildlife could extend outside of the workspaces, but would generally be contained to a relatively small area. We believe the watershed scale is most appropriate to evaluate impacts as it provides a natural boundary and a geographic proxy to accommodate general wildlife habitat and ecology characteristics in the

Project area. Therefore, we evaluated projects within the HUC-12 watershed (HUC 080801020306) that would be crossed by the Project.

- Impacts on land use would occur as a result of temporary vegetation clearing, ground disturbance, and increases in noise and dust during construction activities. The geographic scope of cumulative impacts analysis for land use is focused on those projects that occur within 1 mile of the proposed Project.
- Impacts from facility construction and temporary construction work force may affect socioeconomic conditions. We evaluated current and proposed projects that overlap in time and location within the Evangeline Parish.
- Temporary impacts on air quality, including fugitive dust, would be largely limited to areas within 0.25 mile of active construction. For impacts on air quality for operation, we adopted the distance used by the USEPA for cumulative modeling of large Prevention of Significant Deterioration sources during permitting (40 CFR 51, appendix W), which is a 50-kilometer (31 mile) radius.
- Impacts from construction noise could potentially contribute to cumulative impacts on NSAs within 0.25 mile for general construction activities and 1 mile for operation activities.

Six projects were identified as occurring within the resource-specific geographic scopes and are identified based on resource type below in table 15. These projects were identified by a review of publicly available information; aerial and satellite imagery; and information provided by ANR.

The projects within the geographic scope include: Acadiana Project (CP19-484); Louisiana Xpress Project (CP19-488); Louisiana Connector Amendment Project (CP20-21); Driftwood Pipeline Project (CP17-117); non-jurisdictional Turkey Creek Compressor Station Overhead Power Line Project (as described in section A.8), and non-jurisdictional Water Well and Septic Treatment System Project (as described in section A.8).

Table 15 Past, Present, and Reasonably Foreseeable Projects Considered in the Cumulative Impacts Analysis for the Grand Chenier XPress Project						
Project (Project Proponent)	Project Description	Parish ^a	Estimated Construction Timeframe	Project Size ^b	Closest Distance from Project ^c	Resources Potentially Affected within the proposed Project's Geographic Scope ^d
Natural Gas Facilities Projects						
Acadiana Project (Kinder Morgan Louisiana Pipeline LLC)	Installation of three compressor units and miscellaneous auxiliary facilities at existing Compressor Station 760 in Acadia Parish, and piping modifications and new control valves at an existing meter station in Evangeline Parish.	Acadia and Evangeline Parish	Construction: August 2020 Operation: February 2022	88.52 acres	13.32 miles SE of MLV 2; 24.23 miles SE of Turkey Creek CS	Socioeconomics; Air Quality (Operations)
Louisiana XPress Project (Columbia Gulf Transmission, LLC)	Construction of a new greenfield compressor station (Chicot Compressor Station), modifications at an existing compressor station (Alexandria Compressor Station), and related facilities.	Evangeline, Rapides	Construction: September 2020 Operation: February 2022	61.90 acres	The new Chicot Compressor Station is 11.56 miles SE of Turkey Creek CS	Socioeconomics; Air Quality (Operations)
Louisiana Connector Amendment Project (Port Arthur Pipeline, LLC)	Construction of a new compressor station and approximately 9.4 miles of 42-inch-diameter pipeline with 2.5 miles of lateral pipeline and four new metering stations.	Allen, Evangeline	Construction: 2nd Quarter 2021 Operation: 3rd Quarter 2023	Meter Station: 0.05 acre Compressor Station: 53.97 acres Pipeline: 3.11 acres	One meter station is 9.6 miles SW of MLV 2. Compressor Station is > 50 miles away	Socioeconomics
Driftwood Pipeline Project (Driftwood Pipeline, LLC)	Construction and operation of approximately 96 miles of new pipeline, three new compressor stations, and 15 new meter stations in Calcasieu, Jefferson Davis, Acadia, and Evangeline Parishes	Evangeline	Construction: 2nd Quarter 2020 Operation: 3rd Quarter 2021	1,875.2 acres ^g	The Mamou CS is 24.63 miles S of Turkey Creek CS	Socioeconomics; Air Quality (Operations)
Turkey Creek Compressor Station Overhead Power Line Project (Cleco Corporate Holdings, LLC)	Construction of a new electrical power line, which will interconnect to Cleco Corporate Holdings, LLC's existing 13.2-kilovolt overhead power line from the Turkey Creek Compressor Station.	Evangeline	Construction: 3rd Quarter 2021 Operation: 4th Quarter 2021	6 miles	Overlaps with Project	Soils; Water Use and Quality; Wildlife, and Vegetation; Socioeconomics; Land Use; Noise (Construction); Air Quality (Construction)
Water well and Septic Treatment System Project	Installation of water well and septic tank system within the proposed Turkey Creek Compressor Station.	Evangeline	Construction: Schedule overlap with Project.	N/A	Overlaps with Project	Soils, vegetation, land use, socioeconomics, Noise (Construction); Air Quality (Construction)

a Only parishes in which a cumulative impact may occur are listed.

b Project size (acres) is based on publicly available information, including reported acreages or review of mapping exhibits.

c Distance is measured from nearest portion of the proposed Project workspace to the identified project's location in miles.

d Only resources in which a cumulative impact may occur are identified.

11.1. SOILS

Cumulative impacts on soils could occur if projects are constructed concurrently or if one project re-disturbs an area that was previously stabilized and restored by another project. Project areas overlap with or are immediately adjacent to the Turkey Creek Compressor Station Overhead Power Line Project, which would include a new pad mounted service transformer at the compressor station. Additionally, a Water Well and Septic Treatment System Project would be installed within the proposed Turkey Creek Compressor Station facility fenceline. All projects are proposed to be constructed concurrently. However, due to the limited extent of overlapping footprints as well as soil conservation and restoration measures that would be implemented by all projects to prevent erosion and stabilize disturbed areas, cumulative impacts on soils are anticipated to be short-term, minor, and not significant.

11.2. WATER RESOURCES

Surface Water

Cumulative effects on surface water affected by the Project could occur in the HUC-12 watershed that would be crossed by the Project. ANR would have indirect impacts on two ephemeral waterbodies (roadside ditches). Direct impacts would be mitigated by installation of timber mat bridges. Indirect impacts could occur from stormwater runoff and potential spills.

One project, the Turkey Creek Compressor Station Overhead Power Line Project would occur within the geographic scope for water resources but, would not impact any of the same waterbodies as the proposed Project. Additionally, a Water Well and Septic Treatment System Project would be constructed within the Turkey Creek Compressor Station, however, impacts on water resources are not anticipated from the water well or septic system installation. Concurrent construction of the power line project and proposed Project involving clearing, grading, or other earthwork may also increase the potential for cumulative impacts on water quality from increased stormwater runoff. The Turkey Creek Compressor Station Overhead Power Line Project would also be required to adhere to regulations associated with the use and storage of hazardous materials, implementation of SPCC Plans, and BMPs to minimize the potential for spills of hazardous materials and reduce potential runoff. Given that both projects would implement mitigative measures to reduce impacts on surface waterbodies, and the minimal additive impacts on surface waterbodies, we conclude that cumulative impacts on surface waterbodies would not be significant.

11.3. VEGETATION AND WILDLIFE

As shown in table 15 above, the Turkey Creek Compressor Station Overhead Power Line Project and the Water Well and Septic Treatment System Project would occur within the geographic scope for vegetation and wildlife, and may impact forested and herbaceous vegetation. Overlapping construction timeframes and noise could impact wildlife. Construction of the new greenfield compressor station would temporarily impact about 21.3 acres of pine plantation and 2.2 acres of open land. Project impacts at the new compressor station would result in a permanent conversion (12.3 acres) of existing upland habitat to industrial use. However, as previously discussed, the Project area at the compressor station is within previously disturbed pine plantation (cleared in the last 10 years), which limits the area's value as wildlife habitat. The Water Well and Septic Treatment System Project would be collocated with the compressor station and any impacts associated with this project would be similar to or less in extent than construction of the proposed compressor station.

Construction of the Turkey Creek Compressor Station Overhead Power Line Project could impact 36.4 acres, assuming a 50-foot-wide right-of-way for 6 miles. The majority of this non-jurisdictional project would be completed prior to initiation of the Project. However, if construction schedules overlap, increased noise, and human activity could also disturb wildlife in the area. Impacts from the proposed Project and the Turkey Creek Compressor Station Overhead Power Line Project would have some overlapping workspace and would have minimal cumulative impacts from noise or human activities on wildlife or vegetation.

ANR would minimize impacts on vegetation and wildlife habitat by implementing the measures in the FERC Plan and its ESC Plan. Noise associated with operations of the Project aboveground facilities would be permanent; however, given the large extent of available habitat for wildlife within the geographic scope and that some species may become acclimated to the noise and return to the Project area, impacts would be permanent but not significant. Additionally, because there is an abundance of available habitat within the geographic scope, we conclude cumulative impacts on vegetation and wildlife would be permanent but not significant.

11.4. LAND USE

Impacts on land use, recreation, and aesthetics generally occur within and adjacent to the areas in which Project activities occur. As presented in table 15, two projects, the Turkey Creek Compressor Station Overhead Power Line and the Water and Septic Systems Project, were identified within the defined geographic scope for cumulative impacts on land use, recreation, and aesthetics and was considered in our cumulative impacts analysis.

Construction and operation of the new Turkey Creek Compressor Station associated with the Project would result in the conversion of existing land uses to industrial/developed land. Due to the abundance of land use types similar to those impacted by the proposed Project and the minimal impacts at any one location for the Turkey Creek Compressor Station Overhead Power Line Project and the Water and Septic Systems Project (within the compressor station), and the minimal amount of land use conversion resulting from the combined projects, we conclude that cumulative impacts on land use are anticipated to be minor.

11.5. SOCIOECONOMICS

As discussed in section 7.0, the Project may affect the socioeconomic conditions of the Project area in the short-term, when the facilities are under construction and the temporary construction work force relocates to the Project area. The Project would also have an effect in the long-term due to increased parish revenue collections from taxes levied on Project facilities. Table 15 identifies four natural gas pipeline projects, one electric transmission project, and one water well/septic treatment system project that would be under construction and may have short- or long-term socioeconomic effects within the geographic and temporal scope of the Project. These projects include the Acadiana Project, Louisiana XPress Project, Louisiana Connector Amendment Project, Driftwood Pipeline Project, the Turkey Creek Compressor Station Overhead Power Line Project, and the Water Well and Septic Treatment System Project. ANR estimates that approximately 40 workers would temporarily relocate into the Project area during the construction period for its project. The proponents of the projects listed in table 15 estimate that approximately 1,170 workers would need to temporarily relocate into the project area for the construction of these projects. Approximately 2,446 vacant rental units, 5,260 hotels or motels, and a number of campgrounds or recreational vehicle parks are available to accommodate the construction period housing demand. In addition, existing public services would be sufficient to accommodate this short-term demand without significant impact on the affected counties.

On a long-term basis, the proposed Project facilities and the other natural gas facilities in table 15, would have a minor, positive, cumulative impact on the level of tax collections in the parish during the operational life of these facilities. It is estimated that 2 workers would be hired to operate the project facilities; therefore, there should be a negligible impact on parish public services such as schools and public safety during operations.

Traffic

As described in section 7.2, traffic impacts from Project construction are expected to be minimal. Traffic levels and congestion in Project areas may be affected during the construction period due to personnel movement and materials and equipment deliveries.

If this takes place during the same time period as other potential projects listed in table 15, there could be a cumulative impact on local traffic. However, given that most other projects (with the exception of the powerline and water well/septic treatment system projects which would contribute negligibly to traffic impacts) are between 9 and 20 miles from ANR's Project, and that we would expect the natural gas projects to work with local authorities, we conclude that cumulative traffic impacts during construction would be short-term and minor.

During Project operations, the 2 new staff would have a negligible impact on traffic. Further, the other projects listed in table 15 would also have fewer operations staff than construction workers. We conclude that the Project would have a negligible contribution to overall cumulative impacts on traffic within the geographic scope.

Environmental Justice

The projects listed in table 15 would create temporary noise, fugitive dust, and traffic during construction; however, these impacts would be minor and temporary and would not have a significant impact on environmental justice populations. In addition, except for the power line project and water well/septic treatment system project, which is 1.4 miles from the closest residence and would not impact environmental justice populations, these projects are in different census tracts and block groups throughout Evangeline Parish; therefore, the project would not contribute to cumulative impacts to environmental justice populations within the same census tracts and block groups.

11.6. AIR QUALITY

The proposed Project would result in short-term and long-term impacts on air quality as a result of construction and operation, respectively, in the vicinity of the Project, as discussed in section B.8. There are four projects within the geographic scope for air quality impacts during Project operation, and two projects within the geographic scope for air quality impacts during Project construction. Construction equipment would result in combustion and fugitive dust emissions during construction of the Turkey Creek Compressor Station Overhead Lines Project and Water Well and Septic Treatment System Project, but would not result in operational emissions; the Acadiana, Louisiana Xpress, and Driftwood Pipeline Projects are not within the geographic scope during construction, but would have operational air quality impacts during project operation.

Similar to the proposed Project, construction of the Turkey Creek Compressor Station Overhead Lines Project and Water Well and Septic Treatment System Project would involve the use of heavy equipment that would generate emissions of air pollutants and fugitive dust. Construction equipment emissions would result in short-term emissions that would be highly localized, temporary, and intermittent. Based on the short-term duration of construction emissions, and the mitigation measures outlined by

ANR (see section B.8), the proposed Project, Turkey Creek Compressor Station Overhead Lines Project and Water Well and Septic Treatment System Project, if constructed concurrently, would not result in significant impacts on air quality during Project construction.

Operations of the Acadiana Project, the Louisiana Xpress Project, and the Driftwood Pipeline Project would overlap in geographic scope with the proposed Project. Section B.8 summarized the results of the model that was used to determine the air quality impacts of the proposed Project. Table 15 indicates that the Project would not cause or significantly contribute to a degradation of ambient air quality and would result in continued compliance with the NAAQS. The Acadiana Project, the Louisiana Xpress Project, and the Driftwood Pipeline Project would also result in the operation of new compressor stations that would impact regional air quality. However, all of these projects are FERC-jurisdictional projects that also went through state-level air quality permitting, which would require modeling that shows that the project would not result in a degradation in air quality or an exceedance of the NAAQS. ANR analyzed the air quality modeling results for each of the projects that would overlap in geographic scope with the proposed Project to determine the total concentration of criteria pollutants as a result of the project and the proposed Project. Although ANR did not combine the concentrations of all the projects cumulatively (inclusive of the proposed Project and the Acadiana, Louisiana Xpress, and Driftwood Pipeline Projects), given the distance between the project compressor stations (i.e., a minimum of 11.6 miles from the proposed Project), and given that air quality models typically demonstrate that the highest concentrations are generally found near the emissions source at the project fence line, ANR's analysis in table 16 is adequate and demonstrates that the cumulative impacts of each project and the proposed Project would not result in significant impacts on air quality during project operations.

Table 16 Analysis of Combined Modeling and Background Concentrations for the Turkey Creek Compressor Station, CS 760, Chicot Compressor Station, and CS-03							
Off-Site Source	Pollutant	Avg. Period	Off-Site Source Model-Predicted Concentration (µg/m ³)	Turkey Creek CS Model-Predicted Concentration (µg/m ³)	Ambient (µg/m ³)	Total Concentration (µg/m ³)	NAAQS (µg/m ³)
Acadiana Project – CS 760	NO ₂	1-hour	56.46	10.34	69.18	135.98	188
		Annual	1.34	0.73	11.74	13.81	100
	CO	1-hour	718.16	18.92	3,306	4,043.08	40,000
		8-hour	454.44	5.78	1,436.4	1,896.62	10,000
	PM ₁₀	24-hour	2.8	0.33	72.2	75.33	150
	PM _{2.5}	24-hour	2.75	0.25	17.4	20.4	35
		Annual	0.13	0.06	7.8	7.99	12
	SO ₂	1-hour	0.74	7.54	40.87	49.15	196
		3-hour	0.49	10.38	50.04	60.91	1,300
	Louisiana XPress Project - Chicot CS	NO ₂	1-hour	22.1	10.34	69.18	101.62
Annual			1.2	0.73	11.74	13.67	100
CO		1-hour	35.2	18.92	3,306	3,360.12	40,000
		8-hour	19.7	5.78	1,436.4	1,461.88	10,000
PM ₁₀		24-hour	1.13	0.33	72.2	73.66	150
PM _{2.5}		24-hour	0.77	0.25	17.4	18.42	35
		Annual	0.11	0.06	7.8	7.97	12
SO ₂		1-hour	27.6	7.54	40.87	76.01	196
		3-hour	28.7	10.38	50.04	89.12	1,300
Driftwood Pipeline Project - CS-03		NO ₂	1-hour	37.4	10.34	69.18	116.92
	Annual		1.21	0.73	11.74	13.68	100
	CO	1-hour	156	18.92	3,306	3,480.92	40,000
		8-hour	401	5.78	1,436.4	1,843.18	10,000
	PM ₁₀	24-hour	2.08	0.33	72.2	74.61	150
	PM _{2.5}	24-hour	1.77	0.25	17.4	19.42	35
		Annual	0.24	0.06	7.8	8.1	12
	SO ₂	1-hour	11.6	7.54	40.87	60.01	196
		3-hour	10.9	10.38	50.04	71.32	1,300

11.7. NOISE

Construction of the Project would result in short-term and permanent impacts on existing noise levels in the Project area. Construction of the Project may occur concurrently with construction of the Turkey Creek Compressor Station Overhead Power Line Project and Water Well and Septic Treatment System Project and may contribute cumulatively to impacts on noise levels. However, based on the short-term and temporary nature of construction-related activities, impacts from the Project are not expected to significantly contribute to cumulative impacts on noise levels during construction. The Turkey Creek Compressor Station Overhead Power Line Project and Water Well and Septic Treatment System Project would not result in operational noise and no other projects with operational noise sources were identified within the geographic scope for noise; therefore, the proposed Project would not have a cumulative impact on permanent noise levels in the Project area.

C. ALTERNATIVES

In accordance with NEPA and Commission policy, we evaluated alternatives to the Project to determine whether they would be reasonable and environmentally preferable to the proposed action. These alternatives included the no-action alternative, system alternatives, and site alternatives. The evaluation criteria used for developing and reviewing alternatives were:

- ability to meet the Project's stated objective;
- technical and economic feasibility and practicality; and
- significant environmental advantage over the proposed action.

Through environmental comparison and application of our professional judgment, each alternative is considered to a point where it becomes clear if the alternative could or could not meet the three evaluation criteria. To ensure a consistent environmental comparison and to normalize the comparison factors, we generally use desktop sources of information (e.g., publicly available data, geographic information system data, aerial imagery) and assume the same general workspace requirements.

1.0. NO-ACTION ALTERNATIVE

Under the no-action alternative, the proposed facilities would not be constructed, and the environmental impacts associated with the Project would not occur. However, the Project's objectives would not be met. The no-action alternative would not allow ANR the ability to transport 140 million cubic feet per day and 25 million cubic feet per day of firm transportation, to Sabine Pass and Tourmaline, respectively.

A Commission decision to deny the proposed action would avoid the environmental impacts addressed in the EA; however, other natural gas companies may be required to modify or construct new facilities to meet the demand for additional natural gas transportation service. This action would likely result in similar or greater environmental impacts than the proposed project; therefore, we have dismissed this alternative as a reasonable alternative to meet the Project objectives.

2.0. SYSTEM ALTERNATIVES

System alternatives are alternatives to the proposed action that would make use of existing, modified, or proposed project(s) systems to meet the stated objective of the proposed Project. System alternatives involve the transportation of the equivalent amount of natural gas (165 million cubic feet per day) by the modification or expansion of existing pipeline systems or by other new pipeline systems. Three system alternatives were reviewed: (1) expansion of ANR's existing SEML 501 Mainline and 1-01 Loop Line via installation of a new pipeline loop (Looping Only Alternative); (2) expansion of

ANR's existing SEML 501 Mainline and 1-501 Loop Line via installation of a new pipeline loop, as well as additional compressor at ANR's existing Jena Compressor Station (Looping and Compressor Alternative); and (3) installation of a new pipeline lateral from ANR's existing SEML 501 Mainline and 1-501 Loop Line to Texas Gas Transmission LLC's existing system, as well as the construction of two greenfield interconnects (Lateral and Interconnects Alternative).

Looping Only Alternative

The Looping Only Alternative would require installation of approximately 36 miles of new 36-inch-diameter natural gas pipeline adjacent to ANR's existing SEML 501 Mainline and 1-501 Loop Line. This system alternative would require 462.6 acres more of land impacts than the proposed Project. Additionally, the loop would cross 98 waterbodies, impact 55.8 acres of wetlands, whereas the construction of the proposed Project would not require wetland or direct waterbody impacts. This alternative would also cross several residential properties, seven of which would be 100 feet of the pipeline centerline, resulting in greater land and aesthetic impacts than the proposed Project. Alternatively, no residences occur within 100 feet of the proposed Project are for the Turkey Compressor Station. Looping of ANR's existing SEML 501 Mainline and 1-501 Loop Line would also require greater costs and time to complete in comparison to the proposed Project.

Looping and Compression Alternative

The Looping and Compression Alternative would require installation of approximately 21 miles of new 36-inch-diameter natural gas pipeline adjacent to ANR's existing SEML 501 Mainline and 1-501 Loop Line, as well as additional compression at ANR's existing Jena Compressor Station. This system alternative would require the installation of a Solar Centaur 50 compressor unit at the existing Jena Compressor Station in order to provide approximately 6,130 hp of additional compression to increase supply pressure along ANR's existing pipeline system. This system alternative would require 281.2 more acres of land impacts than the proposed Project. Additionally, the pipeline loop would cross 80 waterbodies and would impact 28.8 acres of wetlands. As previously stated, the proposed Project would not require impacts on wetlands or waterbodies. Additionally, the installation of the 21.4-mile pipeline loop associated with this system alternative would require construction activities across several residential properties, with four residences located within 100 feet of the pipeline centerline. As previously stated, no residences are within 100 feet of the proposed Turkey Creek Compressor Station.

Lateral and Interconnects Alternative

The Lateral and Interconnects Alternative would require a transportation contract with Texas Gas Transmission LLC, involving a new 7-mile pipeline lateral to connect ANR's existing SEML 501 Mainline and 1-501 Loop Line near the Jena Compressor Station. This system alternative would require 73.0 more acres of land impacts than the proposed Project. The lateral required for this system alternative would cross 17 waterbodies and would impact 65.2 acres of wetlands. Additionally, a total of 13 noise sensitive areas would be located within 1 mile of the new interconnects associated with this system alternative, while no NSAs occur within 1 mile of the proposed Turkey Creek Compressor Station.

Given each of these system alternatives would require either increased construction duration, and/or increased land disturbances, wetland and waterbody impacts, residential impacts, or NSA impacts, none of these system alternatives would be environmentally preferable alternative than the proposed Project. Therefore, we have dismissed these system alternatives from further consideration.

3.0. SITE ALTERNATIVES

Three sites were identified as viable options for the proposed Turkey Creek Compressor Station based on proximity to ANR's existing SEML 501 Mainline and 1-501 Loop Line. The proposed site, alternative site 1, and alternative site 2 were evaluated based on landowner preference, environmental impacts, and accessibility.

The proposed site, as analyzed above, would require the conversion of the current land use (pine plantation that was harvested within the last 10 years), to an industrial area that would be maintained as a graveled and fenced facility. It would not require any wetland or direct waterbody impacts.

Alternative site 1 and 2 would be entirely within pine plantation, which has not been recently harvested; therefore, extensive clearing of mature trees would be required for construction of the new compressor station. Additionally, Alternative site 1 would have an intermittent stream and two ephemeral waterbodies that traverse a majority of the site and would need partial fill to accommodate construction and operation of the new compressor station. Alternative site 1 has a 10-foot elevation change from south to north, which would require extensive ground disturbance for grading and leveling for facility foundations. Additionally, the Alternative site 2 landowner was not receptive to selling the property.

Therefore, due to the extensive clearing of mature trees for both Alternative sites 1 and 2, impacts on waterbodies required, grading activities for Alternative site 1, and the

non-receptive landowner for Alternative site 2, we have dismissed these site alternatives from further consideration. Our review of the Project found that environmental impacts associated with the new Turkey Creek Compressor Station have been minimized. No environmental issues have been identified at the proposed site location and we did not receive any comments or concerns from stakeholders regarding the proposed site or site alternatives, nor did we receive any request from stakeholders for such an evaluation. Based on the consideration described above, we conclude that the proposed Project is the preferred alternative to meet the Project objectives.

D. CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis in this EA, we have determined that if ANR constructs and operates the proposed facilities in accordance with its application and supplements, and the staff's recommended mitigation measures below, approval of the Project would not constitute a major action significantly affecting the quality of the human environment. We recommend that the Commission Order contain a finding of no significant impact and include the measures listed below as conditions in any authorization the Commission may issue to ANR.

1. ANR shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. ANR must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of OEP, or the Director's designee, **before using that modification.**
2. The Director of OEP, or the Director's designee, has delegated authority to address any requests for approvals or authorizations necessary to carry out the conditions of the Order, and take whatever steps are necessary to ensure the protection of environmental resources during construction and operation of the Project. This authority shall allow:
 - a. the modification of conditions of the Order;
 - b. stop-work authority; and
 - c. the imposition of any additional measures deemed necessary to ensure continued compliance with the intent of the conditions of the Order as well as the avoidance or mitigation of unforeseen adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, ANR shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed Project plot plans. **As soon as they are available, and before the start of construction**, ANR shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

ANR's exercise of eminent domain authority granted under Natural Gas Act section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. ANR's right of eminent domain granted under the Natural Gas Act section 7(h) does not authorize it to increase the size of its natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. ANR shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP, or the Director's designee **before construction in or near that area**.

This requirement does not apply to extra workspaces allowed by the Commission's Plan and/or minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resource mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and

- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. **Within 60 days of the acceptance of this authorization and before construction begins**, ANR shall file an Implementation Plan with the Secretary for review and written approval by the Director of the OEP. ANR must file revisions to the plan as schedules change. The plan shall identify:

- a. how ANR will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
- b. how ANR will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
- c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
- d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
- e. the location and dates of the environmental compliance training and instructions ANR will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
- f. the company personnel (if known) and specific portion of ANR's organization having responsibility for compliance;
- g. the procedures (including use of contract penalties) ANR will follow if noncompliance occurs; and
- h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and
 - iv. the start and completion of restoration.

7. ANR shall employ at least one EI for the Project. The EI shall be:

- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;

- b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - e. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, ANR shall file updated status reports with the Secretary on a **monthly** basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on ANR's efforts to obtain the necessary federal authorizations;
 - b. the construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance;
 - e. the effectiveness of all corrective actions implemented;
 - f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by ANR from other federal, state, or local permitting agencies concerning instances of noncompliance, and ANR's response.
9. ANR must receive written authorization from the Director of OEP, or the Director's designee, **before commencing construction of any Project facilities**. To obtain such authorization, ANR must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. ANR must receive written authorization from the Director of OEP, or the Director's designee, **before placing the Project into service**. Such authorization

will only be granted following a determination that rehabilitation and restoration of the areas affected by the Project are proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service**, ANR shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the conditions in the Order ANR has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. ANR shall file with the Secretary noise surveys for the Turkey Creek Compressor Station **no later than 60 days** after placing the station into service. If a full power load condition noise survey is not possible, ANR shall file an interim survey at the maximum possible power load **within 60 days** of placing the station into service and file the full power load survey **within 6 months**. If the noise attributable to operation of all equipment at the station under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, ANR shall:
 - a. file a report with the Secretary, for review and written approval by the Director of OEP, or the Director's designee, on what changes are needed;
 - b. install additional noise controls to meet that level **within 1 year** of the in-service date; and
 - c. confirm compliance with this requirement by filing a second full power load noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.

E. REFERENCES

- Bies and Hansen. 1988. Engineering Noise Control Theory and Practice. Accessed May 2020.
- CEQ. 1997. Environmental Justice: Guidance under the National Environmental Policy Act. <https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf> . Accessed September 2020.
- Cornell Lab of Ornithology. 2019a. All About Birds – Lesser Yellowlegs. https://www.allaboutbirds.org/guide/Lesser_Yellowlegs/overview . Accessed March 2020.
- Cornell Lab of Ornithology. 2018b. All About Birds – Dunlin. <https://www.allaboutbirds.org/guide/Dunlin/lifehistory> . Accessed April 2020
- Cornell Lab of Ornithology. 2019c. Information for Planning and Consultation (IPaC) powered by ECOS- The Environmental Conservation Online System. <https://ecos.fws.gov/ipac/> . Accessed March 2020.
- Federal Emergency Management Agency. 2020. FEMA Flood Map Service Center: Search by Address. <https://msc.fema.gov/portal/search#searchresultsanchor> . Accessed March 2020.
- FWS. 2008. Red-Cockaded Woodpecker (*Picoides borealis*). <https://www.fws.gov/endangered/esa-library/pdf/woodpecker.pdf> . Accessed March 2020.
- FWS. 2020a. Information for Planning and Consultation (IPaC) powered by ECOS- The Environmental Conservation Online System. <https://ecos.fws.gov/ipac/> . Accessed March 2020.
- Gibeson, Tina. March 6, 2020. Louisiana Department of Environmental Quality, Access Sciences Senior Records Analyst. Personal communication with Michelle Cortez (Environmental Specialist, Perennial Environmental Services, LLC).
- Google Earth. 2020. <http://www.earth.google.com/> . Accessed March 2020.
- Louisiana Department of Environmental Quality (LDEQ). 2007. Evangeline Aquifer Summary, 2007. https://www.deq.louisiana.gov/assets/docs/Water/Triennial_reports/AquiferSummaries_2007-2009/04EvangelineAquiferSummary09.pdf . Accessed March 2020.

- Louisiana Department of Transportation and Development. 2015. Water Use in Louisiana, 2015. <https://wise.er.usgs.gov/dp/pdfs/WaterUseinLouisiana2015.pdf> . Accessed March 2020.
- LDEQ. 2020a. Underground Storage Tank Program – List of Leaking Underground Storage Tank Site. <https://deq.louisiana.gov/page/underground-storage-tank> . Accessed March 2020.
- LDEQ. 2020b. Superfund Sites. <http://www1.deq.louisiana.gov/portal/DIVISIONS/UndergroundStorageTankandRemediationDivision/RemediationServices/SuperfundSitesinLouisiana.aspx> . Accessed March 2020.
- Louisiana Geological Survey. 2001. Earthquakes in Louisiana. <http://www.lsu.edu/lgs/publications/products/Freepublications/La-earthquakes.pdf> Accessed September 2020.
- Louisiana Department of Natural Resources (LDNR). 2012. Managing Louisiana’s Groundwater Resources. <http://www.dnr.louisiana.gov/assets/docs/conservation/groundwater/12.Final.GW.Report.pdf>. Accessed June 2019.
- LDNR. 2020a. Strategic Online Natural Resources Information System Interactive Map. <http://www.dnr.louisiana.gov/index.cfm/iframe/340>. Accessed March 2020.
- LDNR. 2020b. Salt Dome Cavern Facilities. <http://srfprod.dnr.state.la.us/gis/OC/>. Accessed March 2020.
- Louisiana Department of Wildlife Fisheries (LDWF). 2020d. Louisiana Outdoor Explorer. <http://ldwf.maps.arcgis.com/apps/MapSeries/index.html?appid=4c4a4d9526c248c080c3eaa4808b9bea> . Accessed March 2020.
- Louisiana State University. 2017. Evangeline Parish Hazard Mitigation Plan. <https://hmplans.sdmi.lsu.edu/>. Accessed September 2020.
- Molieri, Melinda. April 9, 2020. Louisiana Department of Environmental Quality, Access Sciences Public Records Technician. Personal communication with Michelle Cortez (Environmental Specialist, Perennial Environmental Services, LLC).
- National Climactic Data Center. 2020. Climate at a Glance for Lake Charles and Lafayette, Louisiana. Available online at: <http://www.ncfc.noaa.gov/cdo-web/datatools/normals>. Accessed March 2020.

- NRCS. 2019. Web Soil Survey.
<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed April 2020.
- The Nature Conservancy. 2003. The West Gulf Coastal Plain Ecoregional Conservation Plan.
<https://www.conservationgateway.org/ConservationPlanning/SettingPriorities/EcoregionalReports/Documents/West-Gulf-Coastal-Plain-Ecoregional-Plan.pdf>. Accessed September 2020.
- U.S. Census Bureau. 2019. QuickFacts.
<https://www.census.gov/quickfacts/fact/table/evangelineparishlouisiana/US,LA/PS/T045219>. Accessed February 2020.
- USA Cops. 2019. USA Cops: The Nations Law Enforcement Site. Available at:
<https://www.usacops.com/la/>. Accessed April 1, 2019.
- USEPA. 2016. https://19january2017snapshot.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document2016.pdf. Accessed October 2020.
- USEPA. 2020a. Cleanups in My Community Map.
<https://ofmpub.epa.gov/apex/cimc/f?p=cimc:MAP:0:::71:P71WELSEARCH:LA|State|LA||true|true|true|true|true|true|-1|sites|N|basic>. Accessed March 2020.
- USEPA. 2020b. NEPA Assist. <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>. Accessed March 2020.
- USEPA. 2020c. EPA Sole Source Aquifers.
<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>. Accessed March 2020.
- USEPA. 2020d. Viewing WATERS Data using Google Earth.
<https://www.epa.gov/waterdata/viewing-waters-data-using-google-earth>. Accessed March 2020.
- USDA. 2020. Ecoregions of the United States.
<https://www.fs.usda.gov/rmrs/ecoregions-united-states>. Accessed February 2020.
- U.S. Geological Survey (USGS). 1999. Ground Water Atlas of the United States, Segment 5, Arkansas, Louisiana, Mississippi.
<https://pubs.usgs.gov/ha/730f/report.pdf>. Accessed February 2019.
- USGS. 2011. Mineral Resources Online Spatial Data.
<http://mrdata.usgs.gov/general/map.html>. Accessed March 2020.

- USGS. 2018. Seismic-Hazards Maps for the Conterminous United States.
<https://www.sciencebase.gov/catalog/item/5d5597d0e4b01d82ce8e3ff1>. Accessed September 2020.
- USGS. 2020. Quaternary Fault and Fold Database of the United States.
<https://www.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>. Accessed September 2020.
- Wheeler, R.L., and Heinrich, P.V., compilers, 1998, Fault number 1022, Gulf-margin normal faults, Louisiana and Arkansas, in Quaternary fault and fold database of the United States: U.S. Geological Survey website.
<https://earthquakes.usgs.gov/hazards/qfaults>. Accessed December 2019.

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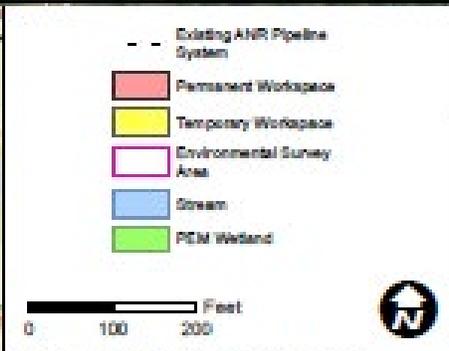
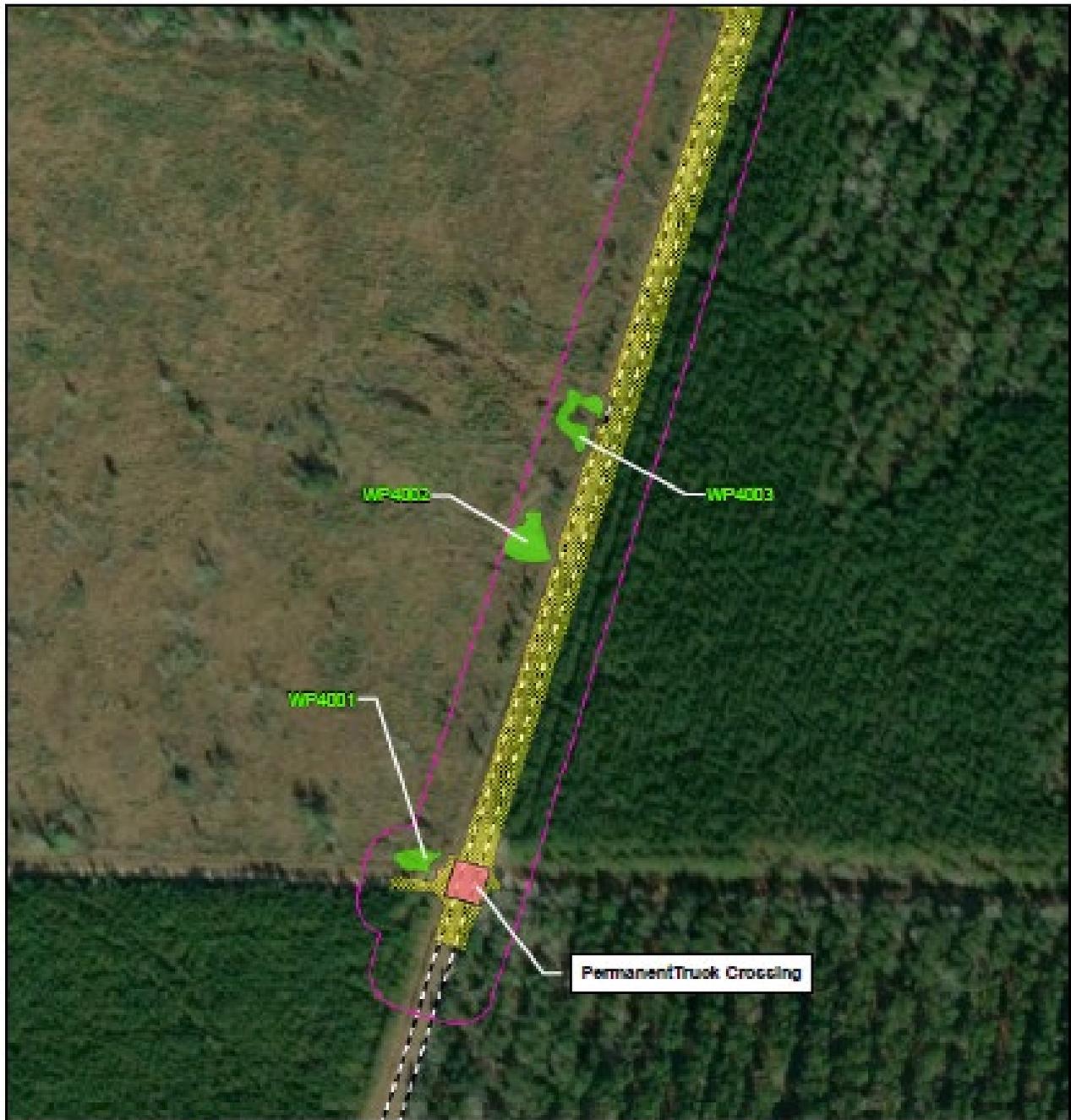
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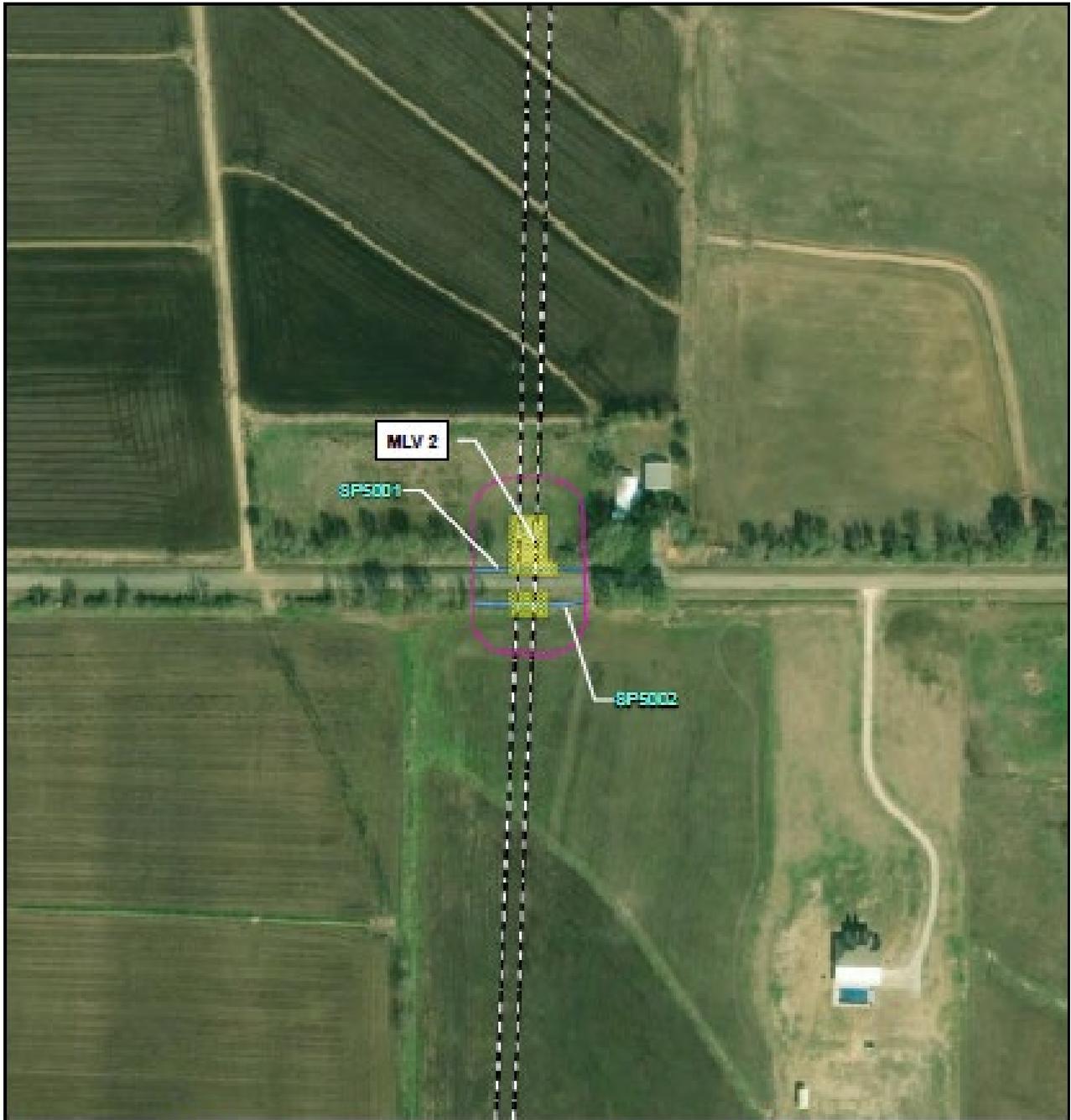
Appendix A
Site Location Map



TC Energy

Aerial Map
 Alberta Xpress Project
 ANR Pipeline Company
 Evangeline Parish, Louisiana

Page 2 of 3	Scale: 1:2,400
NAD 83 LA South F	Date: May 2020

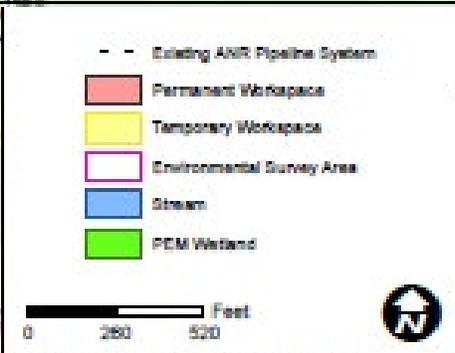
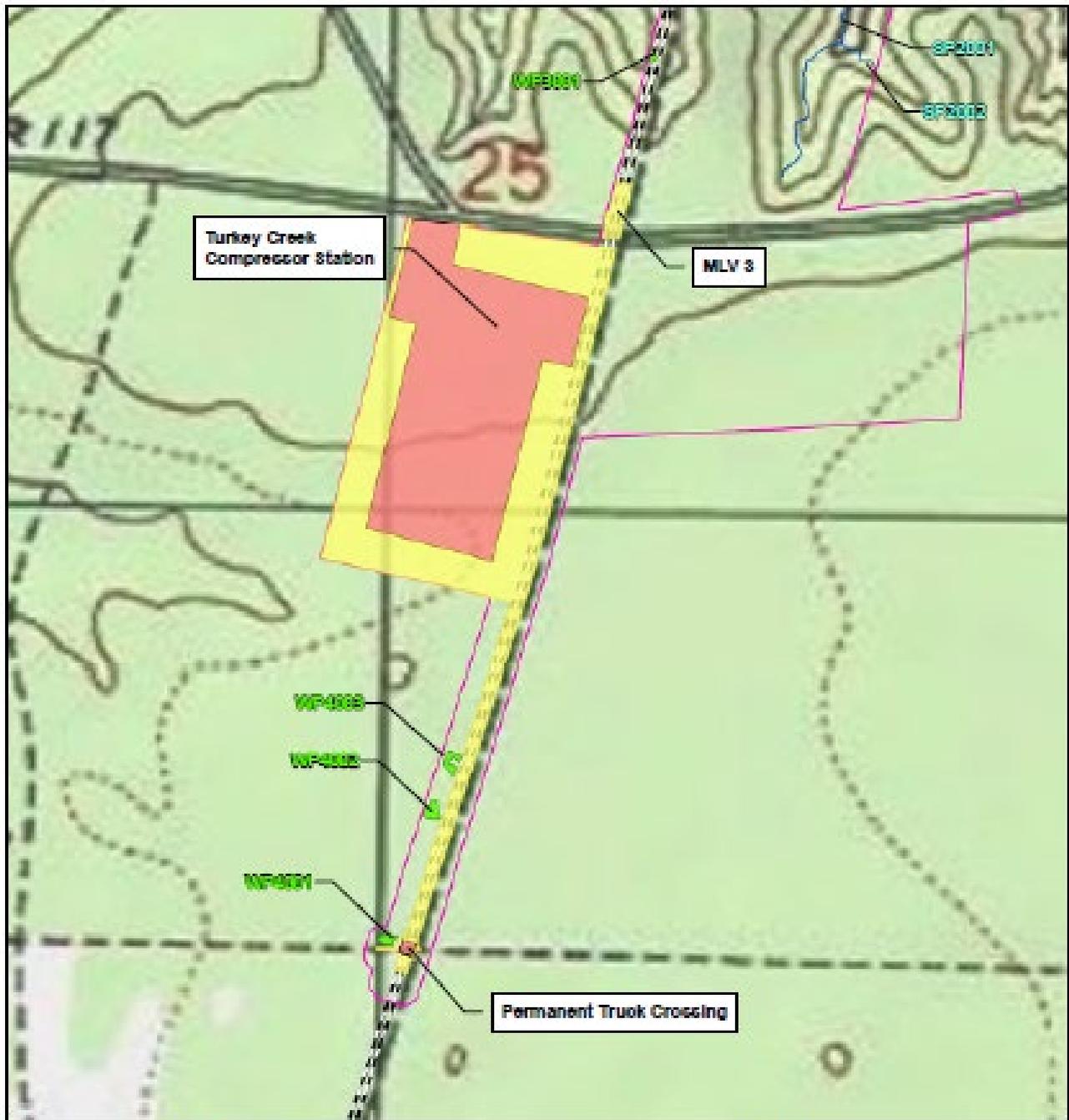


	Existing ANR Pipeline System
	Permanent Workspace
	Temporary Workspace
	Environmental Survey Area
	Stream
	PCM Wetland

0 100 200 Feet

Aerial Map
Alberta Xpress Project
ANR Pipeline Company
Evangeline Parish, Louisiana

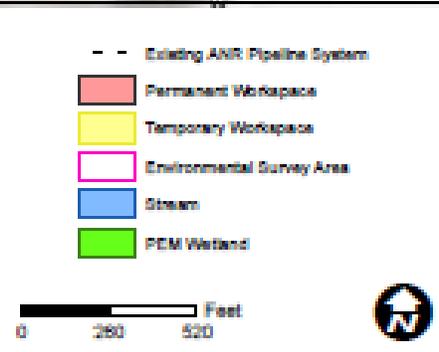
Page 3 of 3	Scale: 1:2,400
NAD 83 LA South ft	Date: May 2020



TC Energy

Topographic Map
 Alberta Xpress Project
 ANR Pipeline Company
 Evangeline Parish, Louisiana

Page 1 of 2	Scale: 1:5,000
NAD 83 LA South R.	Date: May 2020



Topographic Map
 Alberta XPress Project
 ANR Pipeline Company
 Evangeline Parish, Louisiana

Page 2 of 2
 NAD 83 LA South R

Scale: 1:5,000
 Date: May 2020