Office of
Energy Projects

September 2020

North Baja Pipeline, LLC

Docket No. CP20-27-000

North Baja XPress Project

Environmental Assessment

Cooperating Agency:

Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 4
North Baja Pipeline, LLC
North Baja XPress Project
Docket No. CP20-27-000

TO THE INTERESTED PARTY:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared an environmental assessment (EA) for the North Baja XPress Project, proposed by North Baja Pipeline, LLC (North Baja) in the above-referenced docket. North Baja requests authorization to modify an existing compressor station in La Paz County, Arizona, as well as install additional flow measurement facilities and piping modifications at two existing meter stations in La Paz County, Arizona, and Imperial County, California, respectively. The project would enable the transport of 495,000 dekatherms per day to the United States/Mexico border. North Baja states that the purpose of the project is to create capacity to meet growing market demand and provide transportation of feed gas for the Energia Costa Azul liquefied natural gas terminal in Baja California, Mexico.

The EA assesses the potential environmental effects of the construction and operation of the North Baja XPress Project in accordance with the requirements of the National Environmental Policy Act (NEPA). The FERC staff concludes that approval of the proposed project, with appropriate mitigating measures, would not constitute a major federal action significantly affecting the quality of the human environment.

The U.S. Department of the Interior Bureau of Land Management (BLM) participated as a cooperating agency in the preparation of the EA. Cooperating agencies have jurisdiction by law or special expertise with respect to resources potentially affected by the proposal and participate in the NEPA analysis. The BLM will adopt and use the EA to consider the issuance of a right-of-way grant for the use of a potential temporary workspace on BLM-administered public lands adjacent to the Ogilby Meter Station. North Baja submitted an application requesting a right-of-way for use of a temporary workspace on BLM-administered public lands.

The proposed North Baja XPress Project includes the following facilities:

- the construction of one new 31,900-horsepower compressor unit and restaging of two existing 7,700-horsepower compressor units at North

Baja's existing Ehrenberg Compressor Station in La Paz County, Arizona; and

- the addition of flow measurement facilities and piping modifications at North Baja's existing El Paso and Ogilby Meter Stations in La Paz County, Arizona and Imperial County, California, respectively.

The Commission mailed a copy of the *Notice of Availability* for the project to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners and other interested individuals and groups; and newspapers and libraries in the project area. The EA is only available in electronic format. It may be viewed and downloaded from the FERC's website (www.ferc.gov), on the natural gas environmental documents page (https://www.ferc.gov/industries-data/natural gas/environment/environmental-documents). In addition, the EA may be accessed by using the eLibrary link on the FERC's website. Click on the eLibrary link (https://www.ferc.gov/ferc-online/elibrary/overview), select "General Search" and enter the docket number in the "Docket Number" field, excluding the last three digits (i.e. CP20-27). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at FercOnlineSupport@ferc.gov or toll free at (866) 208-3676, or for TTY, contact (202) 502-8659.

The EA is not a decision document. It presents Commission staff's independent analysis of the environmental issues for the Commission to consider when addressing the merits of issues raised in this proceeding. Any person wishing to comment on the EA may do so. Your comments should focus on the EA's disclosure and discussion of potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments, the more useful they will be. To ensure that the Commission has the opportunity to consider your comments prior to making its decision on this project, it is important that we receive your comments in Washington, DC on or before 5:00 pm Eastern Time on **October 8, 2020.**

For your convenience, there are three methods you can use to file your comments to the Commission. The Commission encourages electronic filing of comments and has staff available to assist you at (866) 208-3676 or FercOnlineSupport@ferc.gov. Please carefully follow these instructions so that your comments are properly recorded.

(1) You can file your comments electronically using the eComment feature on the Commission's website (www.ferc.gov) under the link to FERC Online. This is an easy method for submitting brief, text-only comments on a project;

(2) You can also file your comments electronically using the eFiling feature on the Commission's website (www.ferc.gov) under the link to FERC Online.

With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on "eRegister." You must select the type of filing you are making. If you are filing a comment on a particular project, please select "Comment on a Filing"; or

(3) You can file a paper copy of your comments by mailing them to the Commission. Be sure to reference the project docket number (CP20-27-000) on your letter. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, MD 20852.

Filing environmental comments will not give you intervenor status, but you do not need intervenor status to have your comments considered. Only intervenors have the right to seek rehearing or judicial review of the Commission's decision. At this point in this proceeding, the timeframe for filing timely intervention requests has expired. Any person seeking to become a party to the proceeding must file a motion to intervene out-of-time pursuant to Rule 214(b)(3) and (d) of the Commission's Rules of Practice and Procedures (18 CFR 385.214(b)(3) and (d)) and show good cause why the time limitation should be waived. Motions to intervene are more fully described at https://www.ferc.gov/ferc-online/ferc-online/how-guides.

Additional information about the project is available from the Commission's Office of External Affairs, at **(866) 208-FERC**, or on the FERC website (www.ferc.gov) using the eLibrary link. The eLibrary link also provides access to the texts of all formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries, and direct links to the documents. Go to https://www.ferc.gov/ferc-online/overview to register for eSubscription.

TABLE OF CONTENTS

A. PROPOSED ACTION 1

1. Introduction 1
2. Project Purpose and Need 1
3. Scope of this Environmental Assessment 2
4. Proposed Facilities 3
5. Construction and Operation Procedures 5
6. Construction Schedule 8
7. Land Requirements 8
8. Non-Jurisdictional Facilities 9
9. Public Review and Comment 10
10. Permits 10

B. ENVIRONMENTAL ANALYSIS 12

1. Geology 12
2. Soils 15
3. Water Resources and Wetlands 16
4. Vegetation and Wildlife 22
5. Land Use, Recreation, and Visual Resources 34
6. Cultural Resources 39
7. Air Quality 43
8. Noise 54
9. Reliability and Safety 58
10. Cumulative Impacts 59

C. ALTERNATIVES 69

D. CONCLUSIONS AND RECOMMENDATIONS 72

E. REFERENCES 77

F. LIST OF PREPARERS 85

FIGURES

Figure 1: Project Overview Map 4

TABLES

Table 1 Summary of Comments Received during Scoping for the Project 10
Table 2 Consultations, Permits, and Approvals for the Project 11
Table 3 Approximate Acreage of Vegetation Impacts 22
Table 4 Land Use Impacts of Proposed Project 36
Table 5 Land Ownership Affected by Project 38
Table 6 Construction Emissions 50
Table 7 Potential Operational Emissions for the Ehrenberg Compressor Station 52
Table 8 Predicted Air Quality Impacts of the Modified Ehrenberg Compressor Station 54
Table 9 Noise Analysis Ehrenberg Compressor Station and El Paso Meter Station 57
Table 10 Noise Analysis for the Ogilby Meter Station 57
Table 11 Cumulative Impact Geographic Scopes applicable to the Project 61
Table 12 Present and Reasonably Foreseeable Actions within the Geographic Scope 62
Table A-1 Birds of Conservation Concern 87
Table B-1 Special Status Wildlife Species with the Potential to Occur in the Project Areas 91
Table B-2 Special-Status Plant Species with the Potential to Occur at Ogilby Meter Station 95

APPENDICES

Appendix A Birds of Conservation Concern 86
Appendix B Special-Status Wildlife and Plant Species in the Project Areas 90

TECHNICAL ACRONYMS AND ABBREVIATIONS

ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
ASLD	Arizona State Land Department
AMA	Active Management Area
APE	Area of Potential Effects
AQRV	Air quality related values
BCC	Birds of Conservation Concern
BLM	U.S. Bureau of Land Management
BLM-ECFO	U.S. Bureau of Land Management – El Centro Field Office
CAA	Clean Air Act
Caltrans	California Department of Transportation
CDWR	California Department of Water Resources
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CM	Conservation Measures
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Commission	Federal Energy Regulatory Commission
dBA	decibels on the A-weighted scale
DOT	U.S. Department of Transportation
EA	Environmental Assessment
ECS	TC Energy Corporation's *Environmental Construction Standards*
EI	Environmental inspector
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
IPaC	U.S. Fish and Wildlife Service's Information for Planning and Conservation System
ISO	International Organization for Standardization
L_{eq}	24-hour equivalent sound level

L_{dn}	day-night sound level
LNG	liquefied natural gas
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGA	Natural Gas Act
NNSR	Nonattainment New Source Review
NO_2	nitrogen dioxide
NOI	*Notice of Intent to Prepare an Environmental Assessment for the Proposed North Baja XPress Project and Request for Comments on Environmental Issues*
NO_x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSA	noise sensitive area
NSPS	New Source Performance Standards
NSR	New Source Review
OEP	Office of Energy Projects
Plan	FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan*
$PM_{2.5}$	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
Procedures	FERC's *Wetland and Waterbody Construction and Mitigation Procedures*
Project	North Baja XPress Project
PSD	Prevention of Significant Deterioration
Secretary	Secretary of the Commission
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SPCC	North Baja's *Spill Prevention, Control, and Countermeasure Plan*
SWPPP	North Baja's *Stormwater Pollution Prevention Plan*
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic compounds

A. PROPOSED ACTION

1. Introduction

The staff of the Federal Energy Regulatory Commission (FERC or Commission) prepared this environmental assessment (EA) to address the environmental impacts of the construction and operation of the proposed North Baja XPress Project (Project). On December 16, 2019, North Baja Pipeline, LLC (North Baja) filed an application with the Commission in Docket No. CP20-27-000 under Section 7(c) of the Natural Gas Act (NGA) and Parts 157 and 284 of the Commission's regulations. North Baja seeks to obtain a Certificate of Public Convenience and Necessity (Certificate) to construct one new 31,900 International Organization for Standardization (ISO)-horsepower compressor unit and restage two existing 7,700 ISO-horsepower compressor units at its existing Ehrenberg Compressor Station in La Paz County, Arizona. North Baja would also install additional flow measurement facilities and piping modifications at its existing El Paso and Ogilby Meter Stations in La Paz County, Arizona, and Imperial County, California, respectively. The Project would enable the transport of 495,000 dekatherms per day to the U.S./Mexico border.

We[1] prepared this EA in compliance with the requirements of the National Environmental Policy Act (NEPA); the Council on Environmental Quality's (CEQ) regulations for implementing NEPA (Title 40 Code of Federal Regulations, Parts 1500-1508 [40 CFR 1500-1508]); and the Commission's regulations at 18 CFR 380. The EA is an integral part of the Commission's decision-making process on whether to issue North Baja a Certificate to construct and operate the proposed facilities. Our principal purposes in preparing this EA are to:

- identify and assess potential impacts on the natural and human environment that could result from implementation of the proposed action;
- identify and recommend reasonable alternatives and specific mitigation measures, as necessary, to avoid or minimize Project-related environmental impacts; and
- facilitate public involvement in the environmental review process.

North Baja has requested a Certificate by December 31, 2020, to begin construction as early as October 2021 to meet an in-service date of November 2022.

2. Project Purpose and Need

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 to construct and operate them. The Commission bases its decisions on economic issues, including need, and environmental impacts. Approval would be

[1] "We," "us," and "our" refer to the environmental staff of the FERC's Office of Energy Projects (OEP).

granted if, after consideration of both environmental and non-environmental issues, the Commission finds that the Project is in the public interest.

North Baja states that the Project is being proposed to provide approximately 495,000 dekatherms per day (495 million cubic feet per day) of incremental firm delivery capacity to the U.S./Mexico border at a point where North Baja's system interconnects with Infrastructura Energetica Nova's (IEnova) Gasoducto Rosarito Pipeline.[2] The Project would provide transportation of feed gas for Sempra LNG and IEnova's Energia Costa Azul liquified natural gas (LNG) terminal in Baja California, Mexico as well as meet growing market demand.[3]

3. Scope of this Environmental Assessment

The resources and topics addressed in this EA include geology, soils, groundwater, surface waters, wetlands, fisheries, wildlife, vegetation, species of special concern, land use, recreation, visual impacts, cultural resources, air quality, noise, reliability and safety, cumulative impacts, and alternatives. This EA describes the affected environment as it currently exists and the anticipated 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 the lead federal agency for the Project, FERC is required to comply with Section 7 of the Endangered Species Act, as amended (ESA) 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 any permits necessary for all or part of the proposed Project. Permits, approvals, and consultations for the Project are discussed in section A.10 of this EA.

The U.S. Department of the Interior, Bureau of Land Management (BLM) is participating as a cooperating agency in preparing this EA because a portion of the Project would be constructed on lands managed by the BLM El Centro Field Office (BLM-ECFO).[4] The BLM-ECFO assisted in the preparation of this EA, and may adopt all or portions of the document to satisfy its requirements under the NEPA as part of North Baja's application for right-of-way for use of a temporary workspace adjacent to

[2] North Baja's existing pipeline system consists of an approximately 80-mile-long natural gas pipeline extending between North Baja's existing Ehrenberg Compressor Station at an interconnection with a pipeline system operated by El Paso Natural Gas Company to a point on the U.S./Mexico border between Yuma, Arizona and Mexicali, Baja California, Mexico.

[3] The existing Energia Costa Azul regasification LNG terminal in Baja California, Mexico began commercial operations in 2008 and is capable of processing up to 1 billion cubic feet of natural gas per day. Sempra LNG and IEnova are seeking authorization from the Mexican government to add natural gas receipt, treatment, liquefaction, and LNG cargo loading capabilities to the existing LNG terminal.

[4] The BLM-ECFO issued right-of-way grant CACA 042662 on April 19, 2002, for North Baja's existing pipeline system, authorizing North Baja to construct, operate, and maintain its natural gas pipeline and associated Ogilby Meter Station on BLM-administered public lands in Imperial and Riverside Counties, California.

the Ogilby Meter Station. The BLM-ECFO would respond to North Baja's application under Title V of the Federal Land Policy and Management Act (43 U.S. Code Part 1761), BLM regulations (43 CFR 2800), and other applicable federal laws.

4. Proposed Facilities

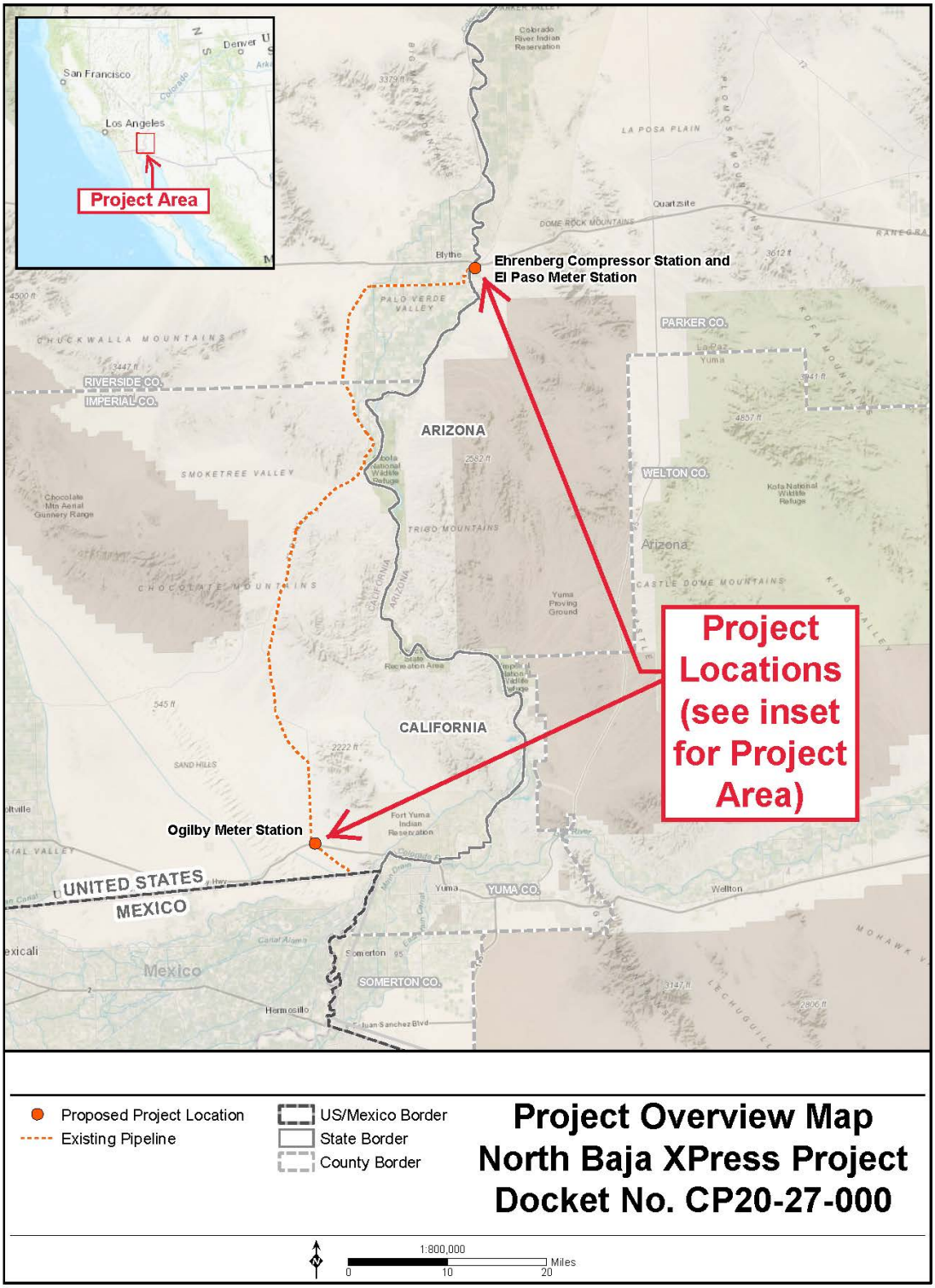
The North Baja XPress Project would consist of the following facility modifications in La Paz County, Arizona:

- the installation of one new 31,900 ISO-horsepower Solar Turbine Titan 250 compressor unit and the restaging of two existing 7,700 ISO-horsepower Solar Taurus 60 turbine compressor units to provide second-stage compression in series flow at the existing Ehrenberg Compressor Station; and
- the installation of additional flow measurement facilities and piping modifications at the existing El Paso Meter Station.

The North Baja XPress Project would also include the installation of additional flow measurement facilities and piping modifications at the existing Ogilby Meter Station in Imperial County, California.

Figure 1 illustrates the general Project location.

Figure 1: Project Overview Map



5. Construction and Operation Procedures

During construction and restoration of the Project, North Baja would implement the measures contained in the following plans, in addition to other federal, state, and local permit requirements:

- TC Energy Corporation's (TC Energy)[5] Environmental Construction Standards (ECS),[6] which incorporates in full the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures);[7]
- *Spill Prevention, Control, and Countermeasure Plan* (SPCC Plan);
- *Stormwater Pollution Prevention Plans* (SWPPPs);
- *Environmental Management and Construction Plans*; and
- *Unanticipated Discovery Plan for Cultural Resources and Human Remains*.

North Baja would employ at least one environmental inspector (EI) per facility site to oversee and document environmental compliance and prepare inspection reports during the construction phase to be submitted to the FERC. All Project-related construction personnel would be informed of the EI's authority and would receive job-appropriate environmental training prior to commencement of work on the Project. FERC staff would maintain oversight of the Project's compliance with any conditions attached to any Certificate that FERC may issue.

Project construction at the existing Ehrenberg Compressor Station and at the existing El Paso Meter Station (located adjacent to the Ehrenberg Compressor Station) would require the expansion of each station's respective footprints. All construction at the Ehrenberg Compressor Station and El Paso Meter Station would take place on Arizona State Trust land or land owned by North Baja. Construction at the existing Ogilby Meter Station would occur on BLM-administered public lands both within the station's existing fenceline boundaries as well as within temporary workspace adjacent to the station's boundary; however, the Project would not require any expansion of the Ogilby Meter Station's existing footprint.

The Project would be constructed, tested, operated, and maintained according to all applicable federal, state, and local laws, regulations, and requirements. These laws

[5] North Baja is 100 percent owned by TC Pipelines, LP and is operated by a subsidiary of TC Energy. Specific to the terminology used in this EA, we will refer to the company plans as "North Baja's" plans.
[6] North Baja's ECS consists of the FERC's Plan and Procedures, its *Environmental Management and Construction Plans*, and its *Spill Prevention, Control, and Countermeasure Plan*, and is available on eLibrary under Accession No. 20191216-5121. To access the public record for this proceeding (CP20-27-000), go to FERC's Internet website (http://www.ferc.gov), click on the "eLibrary" feature. Click on "Advanced Search" from the eLibrary menu and enter the accession number for the document of interest.
[7] The FERC Plan and Procedures are a set of baseline construction and mitigation measures developed to minimize the potential environmental impacts of construction on upland areas, wetlands, and waterbodies. They can be viewed on the FERC website at http://www.ferc.gov/industries/gas/enviro/plan.pdf and https://www.ferc.gov/industries/gas/enviro/procedures.pdf.

and regulations include the Natural Gas Pipeline Safety Act of 1968, as amended, the U.S. Department of Transportation's (DOT) *Transportation of Natural Gas or Other Gas by Pipeline, Minimum Federal Safety Standards* contained in 49 CFR 192, and the Commission's regulations at 18 CFR 380.15, *Siting and Maintenance Requirements*. In accordance with 49 CFR 192, the modified Ehrenberg Compressor Station and modified El Paso and Ogilby Meter Stations would continue to be inspected for leaks as part of scheduled operations and maintenance.

5.1 Aboveground Facility Construction

The construction process would begin with North Baja mobilizing construction crews to the Project sites. Mobilization may include erecting a construction trailer/office, as well as delivery of equipment and materials (e.g., temporary fencing, construction materials, and power supplies) needed to complete Project work.

The limited clearing and grading activities required for the Project would be conducted in accordance with North Baja's ECS and Project-specific SWPPPs. The Ehrenberg Compressor Station and El Paso Meter Station expansion areas would be cleared of vegetation and graded as necessary to create a level surface for the movement of construction vehicles and to prepare the area for constructing pads and foundations. A row of 13 trees that were planted along the western edge of the compressor station at the time it was constructed for landscaping purposes would be removed as a result of the Project. A portion of the temporary workspace for the Ehrenberg Compressor Station would be surface-graded for use as a temporary construction staging area for vehicles and equipment, involving minimal ground disturbance. Topsoil on agricultural lands within the permanent expansion areas for the Ehrenberg Compressor Station and El Paso Meter Station would be stripped, salvaged, and spread on other agricultural land used as temporary workspace for the Project.

Once the building sites have been graded, excavation would begin for the installation of building foundations and pipe supports. The ground surface area would then be prepared, forms and reinforcing bars installed, and high-strength concrete poured to the appropriate design levels. North Baja would implement applicable concrete quality and installation procedures, as well as foundation depth, to ensure that a suitable foundation is obtained.

Various underground piping systems would be installed to accommodate the installation of the Ehrenberg Compressor Station's new compressor unit and as part of the modifications to the El Paso Meter Station. The piping would be installed within each station's existing footprint and permanent expansion area. Installation of the various piping systems would begin at approximately the same time as the foundation work. Trenches would be excavated for the underground portions of the piping. The pipe would be welded, radiographed, coated, placed in the trench, and backfilled. Some portions of the station piping would be constructed above ground. Any aboveground

piping would be installed on concrete or metal pipe supports and painted. Acoustic insulation may be installed on some of the piping for noise control. Some of the piping, valves, and fittings, typically fabricated off-site at a fabrication shop, would be transported to the site. As major parts of the piping are completed, each would be tested either hydrostatically or pneumatically to ensure its integrity. Electrical conduit systems would also be installed during this period.

Once the foundations have been completed and have cured sufficiently, installation of the buildings and machinery for the Ehrenberg Compressor Station would begin. Various piping and electrical conduit systems would be connected following the installation of the station's machinery. Electrical wiring would be installed for power and instrumentation, and new cathodic protection equipment added. Piping installed below grade would be coated for corrosion protection prior to its placement underground. The new facilities would then be tied into the existing pipeline.

Many of the construction procedures for the proposed modifications to the Ogilby Meter Station are the same as described above; the general sequence consisting of:

- mobilization of construction equipment/personnel;
- relocation of an aboveground high-voltage power line to below ground;
- installation of equipment foundations;
- ditching, welding, and installation of large-diameter piping;
- setting and installation of major equipment;
- installation of meter canopy;
- installation of electrical and controls equipment;
- final tie-ins of station piping to major equipment;
- outage for tie-ins to existing station;
- purging, pressurization, commissioning, and testing of equipment;
- site cleanup; and
- demobilization of construction equipment/personnel.

Prior to placing the Project facilities into service, as further described in section B.3.2, the gas piping systems (both above and below ground) would be tested hydrostatically or with a comparable or equivalent method to meet DOT standards. Controls and safety devices (e.g., the emergency shutdown system, relief valves, and other protection and safety devices) would be checked and tested. North Baja proposes to truck the hydrostatic test water to the site, and would discharge the test water using proper erosion and sedimentation controls in accordance with the ECS and SWPPPs.

5.2 Project Restoration and Operation

At the completion of construction at each Project site, temporary construction storage and staging areas with the exception of the Ehrenberg Compressor Station's permanent expansion area would be decompacted, regraded, seeded, and mulched as provided in North Baja's ECS and Project SWPPPs. The permanent new expansion area of the Ehrenberg Compressor Station (excluding the area occupied by the new compressor building) would be covered with gravel. Permanent erosion controls would be installed as required by the SWPPPs and in accordance with the ECS. Temporary workspace to the east and south of the Ehrenberg Compressor Station, and within the temporary workspaces associated with construction at the Ogilby Meter Station, would be restored to their approximate pre-construction conditions and stabilized in accordance with North Baja's ECS and Project SWPPPs. Silt fences and/or straw wattles would be implemented after the site is cleared (prior to grading) to minimize soil erosion from locations on site.

After the completion of piping and mechanical work, and following FERC authorization to place the facilities into service, the Project facilities would be operated on a trial basis to verify the correct functioning of associated safety and protective devices.

6. Construction Schedule

Due to the anticipated length of time required for construction and increased heat-related risks in the summer months, North Baja proposes to begin construction in October 2021 to meet an anticipated in-service date of November 1, 2022. Construction of the Project would require an average of 35 workers per day, peaking at 100 workers per day, and would take place between 4:00 am to 4:00 pm typically on weekdays (Monday through Friday) to minimize worker exposure to heat. Activities prior to 7:00 am would be limited to the extent possible to minimize noise, as further discussed in section B.8.3, below.

7. Land Requirements

Construction of the Project would disturb 22.67 acres outside the existing fenceline boundaries of the Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station. Following construction, 8.42 acres would be converted to new permanent use at the Ehrenberg Compressor Station, and approximately 0.1 acre would be converted to new permanent use at the El Paso Meter Station. Project construction at the Ehrenberg Compressor Station and El Paso Meter Station sites would take place on Arizona State Land Trust land and land owned by North Baja. Project construction at the Ogilby Meter Station site would require 3.26 acres of temporary workspace outside the station's existing fenceline boundary on BLM-administered public lands. Temporary

workspace at the Ogilby Meter Station would be used for construction storage, laydown, and staging, and the station's permanent footprint would not be expanded.

Although North Baja has identified areas where extra workspace would be required, additional or alternative areas could be identified in the future due to changes in site-specific construction requirements. North Baja would be required to file a specific request and information on each of those areas for FERC staff's review and approval prior to use.

Further discussion of land requirements for the Project is provided in section B.6, below.

To access the Ehrenberg Compressor Station and El Paso Meter Station construction sites, North Baja would use approximately 3,000 feet of existing access roads extending from the south boundary of the compressor station and meter station northward to South Frontage Road and Interstate Highway 10. For operation of each of the modified stations, a 1,057-foot-long permanent access road entirely within the footprint of the Ehrenberg Compressor Station's proposed expansion area would be constructed.

The Ogilby Meter Station's existing access road connecting to Frontage Road, as well as Ogilby Road and Interstate Highway 8, would be used to access the Ogilby Meter Station construction site.

8. Non-Jurisdictional Facilities

Under Section 7 of the NGA, the Commission is required to consider, as part of its decision to authorize jurisdictional facilities, all factors bearing on the public convenience and necessity. The primary jurisdictional facilities for the Project are the proposed new compressor unit at the existing Ehrenberg Compressor Station and the proposed flow measurement facilities at the El Paso and Ogilby Meter Stations.

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 (e.g., a gas-fueled power plant at the end of a jurisdictional pipeline) or they may be minor, non-integral components of the jurisdictional facilities that would be constructed and operated as a result of the proposed facilities. As discussed above, proposed Project would provide feed gas for proposed liquefaction facilities at the existing Energia Costa Azul regasification LNG terminal in Baja California, Mexico. However, the LNG terminal is not subject to the Commission's jurisdiction, and is well outside the geographic scope for cumulative impact review in this EA.

9. Public Review and Comment

On January 31, 2018, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed North Baja XPress Project and Request for Comments on Environmental Issues* (NOI). The NOI was sent to affected landowners; federal, state, and local government agencies; elected officials; environmental and public interest groups; Native American tribes; other interested parties; and local libraries and newspapers.

In response to the NOI, the Commission received comments from the State of California Public Utilities Commission, the State of California Department of Parks and Recreation Office of Historic Preservation, and two Native American Tribes. Table 1 summarizes the comments received and indexes the section within this EA that each comment is addressed.

Table 1
Summary of Comments Received during Scoping for the Project

Comment/Concern	Section addressing Comment
Greenhouse gas emissions and climate change	B.7; B.7.4; B.7.5; B.10
Cultural resources and Tribal consultations	B.6

10. Permits

A number of federal, state, and local regulatory agencies have permit or approval authority or consultation associated with the proposed Project. Table 2 provides a list of permits and consultations for the Project; the applicable local, state, and federal agencies; as well as permit/consultation status. North Baja would be responsible for obtaining all permits and approvals required for construction and operation of the Project, regardless of whether or not they appear in the table.

Table 2
Consultations, Permits, and Approvals for the Project

Permit/Approval	Administering Agency	Status
Federal		
Certificate of Public Convenience and Necessity	Federal Energy Regulatory Commission	Application filed 12/16/2019. Certificate pending.
Endangered Species Act, Section 7 Consultation (Ehrenberg Compressor Station and El Paso Meter Station)	U.S. Fish and Wildlife Service – Phoenix Field Office	Consultation letters sent 12/16/2019; Concurrence received 6/25/2020.
Endangered Species Act, Section 7 Consultation (Ogilby Meter Station)	U.S. Fish and Wildlife Service – California Desert Division	Consultation letters sent – 12/16/2019; concurrence received 6/25/2020.
Temporary Use Permit (Ogilby Meter Station)	U.S. Bureau of Land Management – El Centro Field Office	Application filed 7/9/2020; approval of application anticipated December 2020.
State - Arizona		
State Threatened and Endangered Species Consultation	Arizona Game and Fish Department	Consultation initiated 12/16/2019; concurrence pending.
Facility Air Quality Permitting (Clean Air Act Title V Air Permit Amendment Class I)	Arizona Department of Environmental Quality	Permit application filed 12/20/2019; permit received 6/30/2020.
Arizona Pollutant Discharge Elimination System, Construction General Permit, Permit No. AZG2013-001	Arizona Department of Environmental Quality	Anticipated filing date – 9/15/21; anticipated receipt date – 10/1/21.
NHPA Section 106 Consultation	Arizona State Parks & Trails – State Historic Preservation Office	Consultation initiated 3/4/2020; Concurrence received 3/6/2020 and 7/31/2020.
State - California		
California Department of Fish and Wildlife		no comments received
National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Ogilby Meter Station)	State Water Resources Control Board	Anticipated filing date – 9/15/21; Anticipated receipt date – 10/1/21.
NHPA Section 106 Consultation	California Department of Parks and Recreation – Office of Historic Preservation	Consultation initiated 3/4/2020; concurrence received 7/21/2020.
Local - Arizona		
Floodplain; Grading and Drainage; and Building and Safety Permits	La Paz County Department of Community Development	Anticipated filing date – 10/1/20; anticipated receipt date – 2/1/21.
Local - California		
Conditional Use Permit	Imperial County Planning & Development Services Department	Anticipated filing date – 10/1/20; anticipated receipt date – 2/1/21.

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 could occur because of 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.

1. Geology

1.1 Physiographic Setting and Geologic Conditions

The Ogilby Meter Station is within the Salton Trough section of the Basin and Range physiographic province, a complex transition zone between the San Andreas fault system and the Gulf of California segment of the Eastern Pacific Ridge. The Ogilby Meter Station is underlain by Quaternary alluvium and marine deposits (Western Washington University, 2011).

The Ehrenberg Compressor Station and El Paso Meter Station are within the Sonoran Desert section of the Basin and Range physiographic province. The area is characterized by pediments, alluvial fans, bajadas, bolsons, mud and salt flats, and sand dunes. The area is underlain by Holocene river alluvium which consists of unconsolidated to weakly consolidated sand and gravel in river channels, as well as sand, silt, and clay on floodplains (U.S. Geological Survey [USGS], 2006).

1.2 Mineral and Non-Mineral Resources

Based on a literature review, no mineral or non-mineral resources, active or inactive mines, sand/gravel pits, or quarries were identified within 0.25 mile of the Project. No known oil and gas extraction wells were identified within 1 mile of the Project areas (Arizona Oil and Gas Conservation Commission, 2019; California Department of Conservation - Division of Oil, Gas, and Geothermal Resources, 2019; USGS, 2003, 2017). Therefore, construction and operation of the Project is not expected to impact these resources.

1.3 Geologic Hazards

Geologic hazards are natural physical conditions that can, when present, result in damage to land and structures or injury to people. Potential geologic hazards in the Project area were determined through database searches, and literature and topographic map reviews; and include seismicity (earthquakes and faults), slope stability and landslides, subsidence, flooding/scour, soil liquefaction, soil expansion, and volcanism. The proposed Project sites are not characterized by volcanic or karst conditions, or susceptible to landslides; thus, the Project would not be affected by such hazards. Seismic hazards, soil liquefaction, and flooding are discussed below.

Seismic Hazards

Seismic hazards with potential to affect the pipeline include earthquakes, surface faults, and soil liquefaction. In general, risks of seismic-related hazards resulting in damage to the Project would be avoided or minimized by North Baja's implementation of specific design criteria, ground improvements, other construction techniques, and operating procedures.

Seismic risk can be quantified by the motions experienced by the ground surface or structures during a given earthquake as expressed in terms of g (the acceleration due to gravity), or peak ground acceleration. The USGS has developed a series of maps for the entire United States that describe the likelihood for shaking of varying degrees to occur in a given area. The USGS indicates that the Ehrenberg Compressor Station and El Paso Meter Station are in an area where a peak ground acceleration of 0.06 g to 0.14 g has a 2 percent chance of being exceeded in 50 years (slight damage to household items and structures). The Ogilby Meter Station is in an area where a peak ground acceleration of 0.403 g has a 2 percent chance of being exceeded in 50 years (slight damage in specially designed structures, considerable damage in ordinary substantial buildings, and great damage in poorly built structures) (USGS, 2014).

The closest fault to the Ehrenberg Compressor Station and El Paso Meter Station is the potentially active Blythe graben fault, approximately 13.4 miles northeast. The Ogilby Meter Station is directly adjacent to the potentially active Algodones Fault Zone. The closest active fault to the Ogilby Meter Station is the Imperial fault, which is approximately 31 miles to the west. According to USGS data, the Project area has a normal sense of movement and does not present a high risk from active faults (USGS, 2019a).

Soil Liquefaction

Strong ground shaking during an earthquake can cause soil liquefaction, which is the loss of shear strength in saturated soil deposits. The susceptibility of a soil deposit to liquefaction is a function of the degree of saturation, soil grain size, relative density, percent fines, age of deposit, plasticity of fines, earthquake ground motion characteristics,

and several other factors. Soils most prone to liquefaction are poorly graded (i.e., have a uniform grain size) and noncohesive. Soil liquefaction can result in a loss of bearing capacity, soil consolidation, settlement, buoyancy of objects buried in the soil, and lateral spreading. Liquefaction can cause pipelines to undergo movement, including buoyancy, which can result in increased stress in the pipeline and possible damage. The soil and groundwater conditions in the Project's areas are generally not conducive to liquefaction during an earthquake event because of the lack of near surface groundwater (California Department of Conservation – California Geologic Survey, 2019).

Flooding

According to the Federal Emergency Management Agency (FEMA), an area subject to a 1 percent chance of flooding in any given year is classified as a 100-year floodplain. The FEMA Flood Map Service Center shows the proposed western expansion of the Ehrenberg Compressor Station is partially within the designated 100-year floodplain (Zone A) (FEMA, 2019). North Baja would obtain a Floodplain Permit from the La Paz County Department of Community Development, and would comply with the regulations for design, construction, and operations of the compressor station expansion, where applicable, including stormwater conveyance and detention/retention, flood damage prevention measures, and adherence to the La Paz County Floodplain Ordinance.

Executive Order (EO) 11988 on Floodplain Management directs federal agencies to demonstrate a comprehensive approach to floodplain management. EO 11988 establishes avoidance of actions on the base of the floodplain, or the 100-year floodplain, as the preferred method for meeting these requirements. Compliance with EO 11988 is further discussed below in section B.3.2.

Based on the above analysis, we conclude that Project construction and operation would not significantly affect or be affected by geologic resources or hazards.

1.4 Paleontology

No known fossil locations were identified within the Project area based on a review of known paleontological sites (National Park Service, 2018). The likelihood of encountering and disturbing paleontological resources such as vertebrate fossils or scientifically significant invertebrate or plant fossils during Project construction is considered to be low due to the type of deposits (i.e., geologically young, fluvially deposited sand, gravel, and conglomerate) that underlie the Project area as well as the limited ground disturbance and excavation depths. Therefore, Project activities would be unlikely to encounter paleontological resources.

2. Soils

Information regarding the soil types and characteristics occurring in the Project area was obtained from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic database (NRCS, 2019) which provides detailed information useful for natural resource planning and management.

Construction activities such as clearing, grading, excavation, backfilling, heavy equipment traffic, and restoration activities could result in adverse impacts on soil resources in temporary workspaces, on access roads, and at aboveground facilities. Clearing would remove protective vegetation cover and would expose soils to the effects of wind, sun, and precipitation, which could increase soil erosion and the transport of sediment to sensitive areas such as waterbodies or dry washes (also referred to as ephemeral washes). Grading and equipment traffic could compact soil, reducing porosity and percolation rates, which could result in increased runoff potential.

The soils within the Project areas are well drained and non-hydric. The Project's construction activities would impact about 19.41 acres of prime farmland at the Ehrenberg Compressor Station and El Paso Meter Station, and approximately 8.52 acres of prime farmland would be permanently impacted by operation. Soils at the Ehrenberg Compressor Station and El Paso Meter Station have low wind and water erosion potential and are not compaction prone. Construction activities at the Ogilby Meter Station would temporarily impact approximately 3.26 acres of previously disturbed soils. Soils at the Ogilby Meter Station are susceptible to wind and water erosion; however, the soils are not compaction prone and not classified as prime farmland.

Soil erosion would be mitigated through temporary erosion and sedimentation control measures and implementation of permanent measures in accordance with North Baja's ECS and Project-specific SWPPPs. Due to the nature of aboveground facilities, revegetation is not a primary concern; however, the ECS contains measures to facilitate revegetation of those disturbed areas that would revert to pre-construction condition. As described in section A.5, North Baja would perform topsoil stripping, where applicable, to aid in topsoil conservation and revegetation of temporary work areas and thereby minimize the disturbance of undeveloped lands.

According to a search of federal and state databases, no reported sources of known or potential soil contamination were identified in the vicinity of the Project (U.S. Environmental Protection Agency [EPA], 2019a, 2019b; California State Water Resources Control Board Geotracker Database [Geotracker], 2020; California Department of Toxic Substances Control EnviroStor Database [EnviroStor], 2020; Environmental Data Resources, Inc., 2020). Therefore, no impact from contaminated soil is anticipated.

Soil contamination from equipment spills and/or leakage of fuels, lubricants, and coolants could impact soils. North Baja has filed its SPCC Plan, which addresses fluid

leaks and spills. Measures outlined in North Baja's SPCC Plan include, but are not limited to:

- spill prevention and response training for construction personnel;
- regular inspection of construction equipment for leaks;
- secondary containment for storage of fuels, oils, hazardous materials, and equipment;
- collection and disposal procedures for wastes generated during equipment maintenance; and
- standard procedures for excavation and offsite disposal of any soils contaminated by spillage.

We reviewed the SPCC Plan and find it adequate to address the storage and transfer of fuels and hazardous materials as well as the response to be taken in the event of a spill. Adherence with North Baja's SPCC Plan would adequately minimize impacts on soils from inadvertent releases or spills during construction of Project facilities.

Given the Project area's soil characteristics and the impact minimization and mitigation measures described in the ECS, SPCC Plan, and SWPPPs, we conclude that impacts on soils would be minor.

3. Water Resources and Wetlands

3.1 Groundwater Resources

Basin and Range Aquifer System

Groundwater resources within the Project areas are found primarily in the Basin and Range aquifer system, a large-scale (multi-state) regional aquifer system formed in sediments and bedrock in the Basin and Range physiographic province. The principal aquifers in the Basin and Range aquifer system occur in thick deposits of basin fill in valleys separated by mountain ranges. The basin fill material primarily consists of unconsolidated to semi-consolidated sediments of gravel, sand, silt, and clay deposited on alluvial fans, pediments, floodplains, and playas. Basin-fill aquifers generally have higher overall permeability (both unsaturated and saturated) relative to the surrounding bedrock, which allows for rapid infiltration of water directly from the surface (USGS, 2019b).

Groundwater in the basin-fill aquifers occurs under unconfined to semi-confined conditions. Groundwater recharge is derived from precipitation in the mountains surrounding the basins, along the margins of the basin and to a lesser extent over the valleys. Aquifer discharge is by evapotranspiration, discharge to streams, inter-basin flow, and groundwater withdrawal by wells. Inter-basin flow and evapotranspiration can be significant components of groundwater discharge as many basins are connected by

basin fill in narrow valleys between basins, and due to the arid climate (high summer temperatures) of the region.

Bedrock aquifers generally underlie the basin-fill aquifers and consist of limestone, dolomite, and marble with some quartzite, shale, siltstone, and sandstone in formations that are thousands of feet thick. However, construction and operation of the Project would not impact bedrock aquifers (Robson and Banta, 1995; USGS, 2019b).

Sole-Source Aquifers and Protected Aquifers

Under Section 1424(e) of the Safe Drinking Water Act, the EPA defines a sole or principal source aquifer as one that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer, and for which there are no other reasonably available alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water should the aquifer become contaminated. The Project is not within any EPA-designated sole-source aquifers (EPA, 2019c).

The state of Arizona also manages groundwater resources. Areas with heavy reliance on mined or depleting groundwater resources were identified and designated as Active Management Areas (AMAs). These areas are subject to regulation pursuant to the Arizona Groundwater Code. Regulatory and conservation programs are currently mandated for agricultural, municipal, and industrial groundwater users. According to the Arizona Department of Water Resources (ADWR), the Project areas within Arizona are not in an AMA (ADWR, 2020a). The state of California manages groundwater resources under the Sustainable Groundwater Management Act. This Act requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. According to the California Department of Water Resources (CDWR), the Project is within a very low priority basin with no groundwater management requirements (CDWR, 2020a).

Water Supply Wells and Springs

Based on a review of state databases for water supply wells, springs, or seeps and field surveys to verify the database findings, no public groundwater wells, springs, or seeps were identified within 150 feet of the Project work areas (ADWR, 2020b, 2020c; USGS, 2020; CDWR, 2020b). One active well, owned and operated by North Baja, is within the existing Ehrenberg Compressor Station fenceline. No blasting, trench breakers, dewatering, or refueling or storage of hazardous material would occur within 200 feet of a private well or 400 feet of a community or municipal well.

Groundwater Contamination

According to a search of federal and state databases, no reported sources of known or potential groundwater contamination were identified in the vicinity of the Project

(EPA, 2019a, 2019c; Geotracker, 2020; EnviroStor, 2020; Environmental Data Resources, Inc., 2020). Therefore, no impact from contaminated soil or groundwater is anticipated.

Pipeline and related infrastructure construction necessitates the use of heavy equipment and associated fuels, lubricants, and other potentially hazardous substances that, if spilled, could affect shallow groundwater and/or aquifers. Accidental spills or leaks of hazardous materials associated with vehicle fueling, vehicle maintenance, and material storage would present the greatest potential contamination threat to groundwater resources. Soil contamination resulting from these spills or leaks could continue to add pollutants to the groundwater long after a spill had occurred.

Implementation of proper storage, containment, and handling procedures would effectively minimize the chance of such releases. North Baja's SPCC Plan, discussed above, addresses preventative and mitigative measures that would be used to avoid or minimize the potential impacts of hazardous material spills during construction.

Groundwater Impacts and Mitigation

Construction activities, including clearing, trench excavation, dewatering, and fuel handling, could affect groundwater in several ways. Clearing and grading would remove vegetation that provides filtration and slows surface runoff. Trenching and soil stockpiling activities would temporarily alter overland flow and groundwater recharge and could alter near-surface groundwater flows where shallow groundwater is encountered. Heavy equipment used for construction could compact the soil along the right-of-way and slow groundwater recharge rates. In the unlikely event groundwater was to infiltrate into the excavated areas, dewatering could result in localized, minor changes in the water table. Effects from construction would likely be temporary, and the groundwater system would recover to equilibrium within a period of days to a few months. The addition of impervious surfaces at aboveground facilities may permanently affect overland flow patterns and subsurface hydrology. However, these effects would be highly localized and minor.

Given the Project areas' groundwater characteristics and the impact minimization and mitigation measures described in the ECS, SPCC Plan, and SWPPPs, we conclude that impacts on groundwater would be minor.

3.2 Surface Water

The Ehrenberg Compressor Station and El Paso Meter Station Project area is within the town of Ehrenberg in the Colorado River subwatershed. The Ogilby Meter Station Project area is within the Jackson Gulch subwatershed, which is a closed basin.

No sensitive waterbodies, surface water protection areas, or impaired waterbodies per the Clean Water Act Section 303(d) are within the Project area.

North Baja conducted a jurisdictional delineation within the Ogilby Meter Station Project area in May 2019, and in September 2019 at the Ehrenberg Compressor Station and El Paso Meter Station. Five ephemeral waterbodies were identified in the Ehrenberg Compressor Station and El Paso Meter Station survey area to the west and northwest of the Project areas. The closest waterbody is approximately 430 feet west of the northwest corner of the existing facility. Eight ephemeral waterbodies were identified in the Ogilby Meter Station survey area to the north, south, east, and west of the existing facility. However, these waterbodies were outside of the Project area and would not be impacted by the Project. No intermittent or perennial waterbodies are present in the Project areas.

The existing access road at Ogilby Meter Station crosses a waterbody. However, Project activities would not impact this waterbody outside of the existing roadbed. This waterbody is an ephemeral wash that runs perpendicular to the road, flowing over it during heavy rains. North Baja would implement measures in its ECS to avoid impacts on this feature. Furthermore, Project personnel would be required to remain within designated work limits and access roads.

At the Ogilby Meter Station, North Baja readjusted its workspace requirements to avoid waterbody impacts. If water is present during construction activities, and it is determined that Project activities could potentially affect the resource, North Baja would use one or more measures identified in its ECS, which may include flagging of the resource limits and installation of silt fence or other barriers to minimize potential impacts on the resource. North Baja would also comply with measures within its SWPPP and any other required permits.

Hydrostatic Testing

In accordance with DOT regulations, North Baja would conduct hydrostatic testing for all new facility piping prior to placing it into service. Testing would be performed by capping installed or completed segments of the compressor station piping, filling the pipe segments with water, and pressurizing the water to levels above the maximum operating pressure for the pipe. The test pressure would be maintained for a minimum of 8 hours (or 4 hours for testing fabricated units and for short, visible sections). North Baja would obtain hydrostatic test water volumes from municipal supplies. Approximately 49,510 gallons of water would be used for hydrostatic testing at the Ehrenberg Compressor Station; approximately 7,000 gallons of water would be used at the El Paso Meter Station; and approximately 17,600 gallons of water would be used for hydrostatic testing at the Ogilby Meter Station.

Following completion of hydrostatic testing, the water would be tested for contaminants and used for dust control or discharged into an approved energy-dissipating device in a vegetated upland area within the Project area if the water tests clean. If the water does not test clean, it would be treated, re-tested, and either discharged or hauled off site for disposal at an appropriate disposal facility. Discharged waters would be dispersed by a diffuser and filtered through hay bales or an equivalent structure. Use of

vegetated areas as the final discharge point would provide additional filtering, as well as provide an impediment to rapid runoff. Test water would not be discharged directly into surface waters. The discharge of hydrostatic test water would be completed in accordance with the National Pollutant Discharge Elimination System. Because of the limited scope of the proposed Project modifications, the Arizona Department of Environmental Quality (ADEQ) indicated the Project may qualify for a *de minimis* hydrostatic discharge permit.

Impacts from the withdrawal and discharge of test water would be minimized by following the requirements specified in the state hydrostatic test water discharge permits. Impacts from the withdrawal and discharge of hydrostatic test water would be short-term and not significant.

Floodplains

The Ehrenberg Compressor Station is approximately 0.14 mile east of the Colorado River. Based on the FEMA Flood Insurance Rate Map data, the existing station is outside the Colorado River's 100-year floodplain. However, the proposed new addition on the western side of the Ehrenberg Compressor Station is partially within the 100-year floodplain. The El Paso Meter Station is approximately 0.14 mile east of the Colorado River. Based on the FEMA Flood Insurance Rate Map data, the existing station and the majority of the work area are outside the Colorado River's 100-year floodplain. The Ogilby Meter Station is not within a 100-year floodplain. The Ogilby Meter Station and work area are within a low risk minimal flood hazard area (FEMA, 2019). As discussed above in section 1.3, North Baja would obtain a Floodplain Permit from the La Paz County Department of Community Development and comply with all applicable regulations and/or requirements.

Consistency with Executive Order 11988

The modifications at the Ehrenberg Compressor Station would permanently fill as much as 6.7 acres of land within the 100-year floodplain, as discussed in section B.5, above. The proposed Project's footprint would eliminate a corresponding amount of floodwater storage from this floodplain.

EO 11988 directs federal agencies to demonstrate a comprehensive approach to floodplain management, and requires agencies to:

- avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains; and
- avoid the direct or indirect support of floodplain development whenever there is a practicable alternative.

EO 11988 establishes avoidance of actions on the 100-year floodplain, as one method for meeting these requirements.

Our review concludes that impacts of the Project's footprint (6.7 acres) would be minimal when compared to the overall area of the floodplain (approximately 2,701 acres). Therefore, we conclude the floodplain would not be adversely impacted by the Project. In addition, North Baja is required to comply with all requirements included within its Floodplain Permit issued by the La Paz County Department of Community Development, including stormwater conveyance and detention/retention, flood damage prevention measures, and adherence to the La Paz County Floodplain Ordinance. North Baja would contract an engineering design firm to ensure that the modified Ehrenberg Compressor Station's design adheres to the Department of Community Development's requirements.

Based on these factors, we conclude that North Baja's proposed expansion of the existing Ehrenberg Compressor Station footprint does not conflict with the intent of EO 11988.

With the lack of surface waterbodies, use of municipally sourced water for Project needs, and implementation of the measures contained in North Baja's ECS, construction and operation of the Project would not have a significant impact on water resources.

3.3 Wetlands

The U.S. Army Corps of Engineers (USACE) defines wetlands as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soil conditions." We define wetlands as any area that is not actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

North Baja conducted jurisdictional delineations in May and September 2019, in accordance the *Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (USACE, 2008) to determine the location and size of linear water features potentially under the jurisdiction of the USACE, Colorado River Regional Water Quality Control Board, California Department of Fish and Wildlife (CDFW), and/or the ADEQ. In California, top-of-bank measurements were also noted for each linear water feature to assess the areas that may be CDFW-jurisdictional under Section 1600 of the California Fish and Game Code.

No wetlands were identified during the surveys or from the search of the National Wetlands Inventory data. Because no wetlands exist at any of the Project sites, no impacts on wetlands would result from construction and operation of the Project.

4. Vegetation and Wildlife

4.1 Vegetation

The proposed Project area is in the American Semi-Desert and Desert Province ecoregion (U.S. Department of Agriculture, 2019). This ecoregion is characterized by long hot summers and moderate winters; no part of the province receives regular rains. Vegetation in this ecoregion is relatively sparse and is dominated by cacti and shrubs including creosote bush (*Larrea tridentata*) (U.S. Department of Agriculture, 2019).

Three vegetation types would be impacted by the Project – active agriculture, disturbed, and urban/developed (California Native Plant Society, 2019a). Table 3 provides acreage impacts on the three vegetation types within the Project facilities.

Table 3
Approximate Acreage of Vegetation Impacts

Vegetation Community Alliance or Land Cover Type	Ehrenberg Compressor Station		El Paso Meter Station		Ogilby Meter Station	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary[b]
Active Agriculture	6.89	11.18	0.00	11.18[a]	0.00	0.00
Disturbed	1.37	8.19	0.10	8.19[a]	0.00	3.15
Urban/Developed	0.16	>0.01	0.00	>0.01	0.00	0.11

[a] Temporary workspace is shared between the Ehrenberg Compressor Station and El Paso Meter Station. These areas are the same as those noted for the Ehrenberg Compressor Station.
[b] Includes disturbance within the Ogilby Meter Station's existing fenceline boundary.

Active agriculture is characterized by crops grown in openly spaced rows. Wheat is currently planted adjacent to the Ehrenberg Compressor Station and the El Paso Meter Station. Cotton was harvested in the winter of 2019, and North Baja states that alfalfa will be planted this summer. The row crops are often planted in floodplains or upland areas with high-quality soil and are rotated on a seasonal or yearly basis. Agricultural land in the Mojave and Sonoran deserts is frequently artificially irrigated. This vegetation type was observed exclusively along the northern, eastern, and southern borders of the Ehrenberg Compressor Station and El Paso Meter Station.

Disturbed land refers to any land where the native vegetation has been significantly altered by agriculture, construction, or other anthropogenic activities; and the species' composition and site conditions are not characteristic of the disturbed phase of a particular vegetation community (e.g., disturbed chaparral). Disturbed land occurs in vacant lots, roadsides, material storage areas, or abandoned fields. In the Ehrenberg Compressor Station and El Paso Meter Station survey areas, disturbed land comprised approximately 17.59 acres. At the Ogilby Meter Station, approximately 7.21 acres of disturbed land were observed within the survey area. The species' composition is often

dominated by non-native species and/or bare ground. Within the survey areas, this land cover is dominated by Mediterranean grass, ragweed, Russian thistle, and Saharan mustard. A row of 13 non-native landscaping trees including tamarisk, Aleppo pine, and sand pine is also present along the western side of the existing Ehrenberg Compressor Station.

Urban/developed land includes areas that have been developed or otherwise physically altered to the extent that they no longer support most vegetation. Urban/developed land is characterized by the presence of permanent or semi-permanent structures, pavement or hardscape, and/or landscaped areas. Urban/developed land comprised approximately 16.27 acres at the Ehrenberg Compressor Station and El Paso Meter Station survey areas. Vegetation within the developed areas consisted of tamarisk, ragweed, and goosefoot.

Noxious Weeds and Invasive Species

A noxious weed is "any plant designated by a Federal, State or county government as injurious to public health, agriculture, recreation, wildlife or property" (BLM, 2019). Invasive plants include not only noxious weeds, but also other plants that are not native to this country or to the area where they are growing. The BLM considers plants invasive if they have been introduced into an environment where they did not evolve. As a result, they usually have no natural enemies to limit their reproduction and spread (BLM, 2019). The FERC Plan requires that applicants develop procedures in coordination with appropriate agencies to prevent the spread of invasive species and noxious weeds resulting from construction and restoration activities.

Three noxious weeds—Saharan mustard, Mediterranean grass, and Bermuda grass —were identified within the survey area at the Ogilby Meter Station.

Protected and Sensitive Areas

Protected areas are areas designated or directly managed by federal, state, or local agencies, or private landowners with the specific goal of creating or protecting wildlife habitat or vegetation. Protected areas include nature preserves, wildlife refuges, and wildlife management areas. Sensitive areas are areas that are more susceptible to disturbance or are ecologically or biologically significant. Sensitive areas include, but are not limited to: rare, threatened, or endangered species habitat; unique or biologically diverse ecosystems; migration routes; and breeding areas. The proposed Project contains habitat suitable for desert tortoise, flat-tailed horned lizard, western burrowing owl, Harwood's milk-vetch, as well as additional state-listed or sensitive species, as described below. Minimization measures that would be implemented to reduce impacts on these species are also described below. No nature preserves, wildlife refuges, or wildlife management areas occur within Project areas.

Impacts and Minimization

Clearing, grading, and operation of the Project would result in vegetation removal. A row of 13 landscaping trees would be removed from the western side of the Ehrenberg Compressor Station. Operation of the Project would require impacts on only previously disturbed areas and would include a total of 8.5 acres of permanent impacts on active agriculture, disturbed, and urban/developed land.

Following construction, areas cleared or otherwise disturbed and not required for operation of the aboveground facilities would be stabilized and restored as close to pre-construction conditions as practicable. North Baja has consulted with the NRCS and would seed, restore temporary workspaces, and control the spread of invasive species per NRCS recommendations. North Baja would also implement the cleanup, restoration, and erosion control practices provided in its ECS to minimize impacts on soils and vegetation within the Project area. North Baja's ECS also requires North Baja to verify that the soils imported for agricultural use are noxious weed and soil pest free, unless otherwise approved by the landowner. Agency-recommended measures related to soil conservation would be incorporated into North Baja's site-specific SWPPPs. North Baja would conserve topsoil, install erosion control devices, keep the work area clean of debris, prevent and remediate spills, and restore temporary workspaces. Given the above measures to restore disturbed areas and prevent the introduction or spread of invasive species, and that most of the impacts from the Projects would occur in previously disturbed areas, impacts on vegetation would be minimal and short-term.

4.2 Wildlife

North Baja conducted surveys to document the existing resources present within Project areas. As noted in section B.4.3 above, the vegetation communities identified in the compressor station site include active agriculture, disturbed, and urban/developed. Project sites contain suitable habitat for a variety of terrestrial wildlife species, including birds, small mammals, and reptiles. Wildlife species expected in the region include those commonly found in the American Semi-Desert and Desert Province ecoregion, such as Merriam's kangaroo rat and the white-tailed antelope squirrel. Large carnivores, such as the desert kit fox and coyote, also occur. Bird species, such as loggerhead shrike, cactus wren, and greater roadrunner are common in the southern part of the ecoregion (U.S. Forest Service, 1995). Numerous species of reptiles, including the desert tortoise, live in this ecoregion.

Given that no waterbodies would be impacted by the Project, construction activities and facility operations within the proposed Project areas would not impact any fisheries and associated habitat or federally listed essential fish habitat under the jurisdiction of the National Oceanic and Atmospheric Administration National Marine Fisheries Service. The Ehrenberg Compressor Station and El Paso Meter Station work

areas are approximately 0.1 mile east of the Colorado River, and are separated from the river by active agricultural land.

Land disturbances (e.g., clearing and grading) in the temporary workspaces could result in impacts on species that are less mobile and cause temporary loss of habitat. Though wildlife in the area may be temporarily displaced, a significant amount of similar (and potentially better-quality) habitat is present in the vicinity of the proposed Project. Given that Project lighting would be downshielded or directional, and that nighttime construction is expected to be limited, the impacts on wildlife would be minimal. Operational impacts on wildlife would be consistent with existing conditions at the existing facilities.

To reduce Project-related impacts on wildlife and habitat, North Baja would implement the measures in its ECS, including the following:

- conserving topsoil;
- installing erosion control devices;
- keeping work areas clean of debris;
- preventing and cleaning spills; and
- restoring temporary workspaces.

Given these measures, and the majority of the areas that would be permanently impacted are currently disturbed, impacts on wildlife would be sufficiently minimized.

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act (16 U.S.C. 703-711). Executive Order 13186 (66 Federal Register 3853) directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse impacts on migratory birds through enhanced collaboration with the U.S. Fish and Wildlife Service (USFWS). Executive Order 13186 states that emphasis should be placed on species of concern, priority habitats, and key risk factors, and that focus should be on population-level impacts.

On March 30, 2011, the USFWS and the Commission entered into a Memorandum of Understanding (FERC, 2011) that focuses on avoiding or minimizing adverse effects on migratory birds and strengthening migratory bird conservation through enhanced collaboration between the two agencies. This voluntary Memorandum of Understanding does not waive legal requirements under the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, ESA, NGA, Federal Power Act, or any other statutes, and does not authorize the take of migratory birds.

The USFWS established Birds of Conservation Concern (BCC) lists for various regions in the country in response to the 1988 amendment to the Fish and Wildlife

Conservation Act, which mandated the USFWS to identify migratory nongame birds that, without additional conservation actions, were likely to become candidates for listing under the ESA. The Project falls within Bird Conservation Region 33 – Sonoran and Mojave Deserts. According to the USFWS Information for Planning and Conservation system (IPaC), 11 BCC species could occur in the vicinity of the Ehrenberg Compressor Station and El Paso Meter Station; no BCCs are expected at the Ogilby Meter Station. Table A-1 in Appendix A lists the name, life history, and potential occurrence of BCCs at the Ehrenberg Compressor Station and El Paso Meter Station sites.

No BCCs were observed during North Baja's surveys, but suitable nesting habitat for other bird species is present in the general Project area. However, neither the temporary workspace nor the permanent expansion area around the Ehrenberg Compressor Station and El Paso Meter Station contain habitat suitable to support any of the 11 BCC species, other than western burrowing owl.

Thirteen ornamental trees on the western edge of the Ehrenberg Compressor Station expansion area, and 0.3 acre of creosote scrub vegetation at Ogilby Meter Station, would be removed during construction of the Project. Removal of this vegetation could result in inadvertent effects to nesting adults and nests, including those with eggs and/or young, if present. To avoid impacting nesting birds in the Project area, all tree removal would be conducted between October 15 and November 30. However, some birds in California nest year-round or are ground-nesters (e.g., burrowing owl). A biological monitor would be present to perform pre-construction surveys of the vegetation and any ground-nesting habitat at the Ogilby Meter Station to confirm no sensitive or protected species are present, including bird nests (protected by California Fish and Game Code sections 3503, 3503.5, and 3513). North Baja would also implement measures outlined in the ECS during construction and operation of the Project facilities. Therefore, we conclude the Project's impacts on migratory birds would not be significant.

Birds have been shown to be attracted to red, steady lights (Federal Communications Commission, 2017). New lighting at the Ogilby and El Paso Meter Stations would mainly consist of light-emitting diode (known as "LED") lights directed toward equipment and lighting over doors. Flashers would be installed at the Ehrenberg Compressor Station near entries of new buildings, which would only be illuminated during emergencies. Flood lights would be installed at Ehrenberg Compressor Station and at Ogilby Meter Station that would only be used during emergency inspection or urgent maintenance activities. All lights would be downshielded or directional and white, yellow, or bluish-white in color.

No habitat for bald and golden eagles was observed during field surveys, and eagles do not occur in the Project areas according to IPaC. Additionally, there are no records of occurrence of eagles within 5 miles of the Project site. No breeding, nesting, foraging, or wintering habitat for bald eagles is present within the Project sites. We do not anticipate the Project would adversely impact bald or gold eagles, but if eagles were

observed, North Baja would contact the USFWS for guidance on compliance with the Bald and Golden Eagle Protection Act.

Given a biological monitor would be present prior to and during ground disturbance at the Ogilby Meter Station, North Baja would contact the USFWS for compliance with the Bald and Golden Eagle Protection Act if eagles were observed, and vegetation clearing would occur during the non-nesting season, impacts on nesting birds and bald and golden eagles are expected to be sufficiently minimized.

4.3 Protected 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 for this EA are federally listed species that are protected under the ESA, BLM-sensitive species, and those species that are state-listed as threatened, endangered, or state species of special concern. Table B-1 in appendix B indicates special status wildlife -- including those that are state-listed, sensitive, or species of concern in Arizona, California, or on BLM land -- that could occur in the general Project area. Table B-2 in appendix B lists the special status plants with the potential to occur at the Ogilby Meter Station. No special status plants are expected at the Ehrenberg Compressor Station/El Paso Meter Station.

Federal Threatened and Endangered Species

Section 7(a)(2) of the ESA requires the Commission to ensure that any action it authorizes, funds, or carries out would not jeopardize the continued existence of federally listed or proposed listed species, or result in the adverse modification or destruction of critical habitat for federally listed and proposed species. As the lead federal agency for the North Baja XPress Project, FERC is responsible for ESA consultation with the USFWS to determine whether any proposed or federally listed species, or critical or proposed critical habitat may occur in the Project area, and to determine the proposed action's potential impacts on these species and critical habitat. Species protected under state statutes do not carry regulatory protection under the ESA, but impacts are reviewed if the applicable agency indicates its potential presence in the Project area during consultation.

North Baja, acting as our non-federal representative for the purpose of complying with Section 7(a)(2) of the ESA, consulted the IPaC system and determined that four endangered species (Southwestern willow flycatcher, Yuma clapper rail, bonytail chub, and razorback sucker), three threatened species (desert tortoise, yellow-billed cuckoo, and Northern Mexican gartersnake), and one endangered, experimental, non-essential population (Sonoran pronghorn) could occur in the general Project area. Suitable habitat is present in the specific Project area for only one of these eight species--the desert tortoise. No other federally listed species are expected to occur on the Project sites and therefore impacts would not occur on any other species. No designated critical habitat is

present in the Project areas. Therefore, no impacts on critical habitat would occur as a result of Project activities.

Although the federally threatened Peirson's milk-vetch was not documented by the IPaC for the Project area, the USFWS Colorado Desert Division notified North Baja on January 15, 2020, that this plant could be present. North Baja conducted additional rare plant surveys in March 2020, which did not document the presence of Peirson's milk-vetch.

We conclude that the Project would have *no effect* on the Peirson's milk-vetch, Southwestern willow flycatcher, yellow-billed cuckoo, Yuma clapper rail, Northern Mexican gartersnake, bonytail chub, razorback sucker, or Sonoran pronghorn due to lack of suitable habitat for these species. On June 25, 2020, the USFWS concurred with this determination, including that the Project would likely have *no effect* on Peirson's milk-vetch; thus consultation is complete for these species.

Desert Tortoise

North Baja conducted habitat surveys in May and September 2019, and observed suitable habitat for desert tortoise at the Ogilby Meter Station. North Baja also conducted protocol-level desert tortoise presence/absence surveys in all Project areas. No live desert tortoise or sign were observed in the Ehrenberg Compressor Station, El Paso Meter Station, or Ogilby Meter Station survey areas. However, in the Ogilby Meter Station survey area, several burrows were identified that are large enough in diameter for a desert tortoise. These shallow burrows may serve as "resting" burrows for passing tortoises, but no suitable den or satellite burrows were observed. Suitable foraging habitat is present, but there is less scrub cover than the surrounding habitat. Accordingly, and due to the lack of denning-sized burrows, we believe the potential for tortoises to use the area extensively is low and that it is unlikely that any foraging or itinerant desert tortoise individuals would be on site during construction. However, if any are present, they could be subject to direct impacts that include crushing by vehicles or equipment. Temporary impacts on desert tortoise could include temporary habitat loss and/or temporary displacement during construction.

To minimize the risk of impacts on desert tortoise, North Baja would implement the following Conservation Measures (CM) at the Ogilby Meter Station:

> **CM 1**. A qualified biologist would conduct a pre-construction survey of the temporary workspace immediately prior to commencement of construction. The biologist would monitor initial ground-disturbing activities to ensure that no desert tortoise or other wildlife are present;
>
> **CM 2**. A qualified biologist would provide a worker education program describing desert tortoise life history requirements and the measures to be implemented to avoid impacts on the species;

CM 3. If desert tortoise or any other special-status wildlife species are encountered during construction activities, individuals would be allowed to leave the area unharmed, of their own volition;

CM 4. North Baja would ensure that upgrade and construction activities be conducted within the existing fenceline boundaries of the Ogilby Meter Station and the temporary workspace areas;

CM 5. All Project vehicles and equipment would adhere to a speed limit of 15 miles per hour while in the Project area; and

CM 6. Project personnel would inspect the ground under vehicles and equipment for the presence of desert tortoise any time a vehicle or construction equipment is parked in desert tortoise habitat. If a desert tortoise is observed, it would be allowed to move away of its own accord.

CM 7. Workers are prohibited from feeding all wildlife. In addition, trash would be secured in containers to prevent attracting common ravens or other potential predators of the desert tortoise.

The USFWS provided clarification regarding CM 4 on July 15, 2020, identifying that desert tortoise may occur within associated temporary workspace at Ogilby Meter Station in addition to within its fenceline boundaries. We have concluded that any impacts on desert tortoise would be short-term in nature, and existing habitat use and behavioral patterns would return to normal after the site restoration activities have been completed. Given the negative survey results and the minimization measures North Baja has committed to implement, we find that the Project is *not likely to adversely affect* desert tortoise. On June 25, 2020, the USFWS concurred with our determination via email.[8] Accordingly, ESA consultation is complete for the Project.

BLM Sensitive Species

North Baja identified 11 wildlife and 4 plant BLM-sensitive species that could occur in the Project area (desert tortoise, flat-tailed horned lizard, razorback sucker, western burrowing owl, Gila woodpecker, Southwestern willow flycatcher, western yellow-billed cuckoo, Yuma Ridgway's rail, cave myotis, Sonoran pronghorn, western mastiff bat, Algodones Dunes sunflower, Peirson's milk-vetch, sand food, and Wiggins' croton). Of these 15 species, field surveys identified suitable habitat for three wildlife species (desert tortoise, western burrowing owl, and flat-tailed horned lizard) within the Project area. Given the desert tortoise is federally threatened, BLM is coordinating with the USFWS and FERC through Section 7 of the ESA to minimize "take" for this species,

[8] Concurrence from the USFWS can be found on FERC's elibrary at accession number 20200730-5115.

and it is discussed above. North Baja performed floristic surveys, in the appropriate bloom period, in the Project area and did not observe any of the four plant species. Therefore, we conclude that no impact would occur to these botanical species.

Suitable habitat for western burrowing owl occurs at the Ogilby Meter Station. During field surveys, no individuals were observed. However, an old burrow complex and a weathered owl pellet were observed in this area. Suitable breeding and foraging habitat also is present at the Ehrenberg Compressor Station and El Paso Meter Station, but no signs (burrows, scat, or pellets) were observed during field surveys. With the minimization measures described above that would be implemented to minimize impacts on desert tortoise, and those described below for flat-tailed horned lizard (including minimizing vegetation disturbance and having a biological monitor present during all ground-disturbing activities) , impacts on burrowing owls would also be sufficiently minimized.

No evidence of flat-tailed horned lizards was observed during field surveys, and a search of possible nests and ant mounds determined these areas were inactive or unoccupied by flat-tailed horned lizards. However, given habitat characteristics, the BLM states that the presence of this species should be assumed within the Ogilby Meter Station temporary workspace. The minimization measures to protect the desert tortoise (e.g., preconstruction surveys, worker training, real-time observations, speed limits, etc.) would also be protective of flat-tailed horned lizard. North Baja has also committed to implement the following adapted measures in accordance with the Flat-tailed Horned Lizard Rangewide Management Strategy (Flat-tailed Horned Lizard Interagency Coordinating Committee, 2003):

- To the extent feasible, surface-disturbing activities would be timed to minimize mortality.

- Prior to Project initiation, an individual would be designated as a field contact representative. The field contact representative would have the authority to ensure compliance with protective measures for the flat-tailed horned lizard and would report directly to North Baja. The field contact representative would have the authority and responsibility to halt activities that are in violation of these terms and conditions.

- All Project work areas would be clearly flagged or similarly marked at the outer boundaries to define the limit of work activities. All construction personnel would restrict their activities and vehicles to areas that have been flagged to eliminate adverse impacts on the flat-tailed horned lizard and its habitat. All workers would be instructed that their activities are restricted to flagged and cleared areas.

- Within flat-tailed horned lizard habitat, the area of disturbance of vegetation and soils would be the minimum required for the Project. Vegetation clearing and

grading would be minimized. Wherever possible, rather than clearing vegetation and grading the right-of-way, equipment and vehicles would use existing surfaces or previously disturbed areas.

- Where grading is necessary, surface soils would be stockpiled and replaced following construction to facilitate habitat restoration. To the extent possible, disturbance of shrubs and surface soils due to stockpiling would be minimized.

- Existing roads would be used for travel and equipment storage whenever possible.

- A biological monitor would be present in each area of active surface disturbance throughout the work day from initial clearing through habitat restoration, except where the Project is completely fenced and cleared of flat-tailed horned lizards by a biologist.

- Prior to the onset of construction, a qualified biological monitor who is approved by the California Department of Fish and Wildlife would perform the following functions:

    - Develop and implement a worker education program. Wallet cards summarizing the program's information would be provided to all construction and maintenance personnel. The education program would include the following aspects at a minimum:
        - biology and status of the flat-tailed horned lizard;
        - protection measures designed to reduce potential impacts to the species,
        - function of flagging to designate authorized work areas;
        - reporting procedures to be used if a flat-tailed horned lizard is encountered in the work area; and
        - importance of exercising care when commuting to and from the Project area to reduce mortality of flat-tailed horned lizards on roads.
    - Ensure that all Project-related activities comply with these measures. The biological monitor would have the authority and responsibility to halt activities that are in violation of these terms and conditions.
    - Examine areas of active surface disturbance periodically (at least hourly when surface temperatures exceed 85 ºF) for the presence of flat-tailed horned lizards. In addition, all hazardous sites (e.g., open trenches, holes, or other deep excavations) would be inspected for the presence of flat-tailed horned lizards prior to backfilling.
    - Work with the Project foreman to take steps, as necessary, to avoid disturbance to flat-tailed horned lizards and their habitat. If a flat-tailed horned lizard is not trapped and disturbance can be avoided, the lizard

would be allowed to leave the work area unharmed, of its own volition.
  - If avoiding disturbance to a flat-tailed horned lizard is not possible or if a flat-tailed horned lizard is found trapped in an excavation, the biological monitor would capture the affected lizard by hand and relocate it to a safe site outside of the work area.

- Sites of permanent or long-term (i.e., greater than one year) projects in management areas where continuing activities are planned and where flat-tailed horned lizard mortality could occur may be enclosed with flat-tailed horned lizard barrier fencing to prevent lizards from wandering onto the Project site, where they may be subject to collection, death, or injury. North Baja would install barrier fencing in accordance with the standards outlined in Appendix 7 of the Flat-tailed Horned Lizard Rangewide Management Strategy. After clearing the area of flat-tailed horned lizard, no on-site monitor would be required.

North Baja provided its Plan of Development to the BLM on July 9, 2020,[9] which includes the measures above and describes the specific mitigation North Baja would perform during and after construction of the Project. The BLM, as a cooperating agency in the preparation of this document, has reviewed North Baja's Plan of Development and this EA and finds the measures outlined would sufficiently protect the flat-tailed horned lizard. Therefore, impacts on this species would be sufficiently minimized.

State-Listed Species

North Baja utilized the Arizona Game and Fish Department's HabiMap Arizona and California's Natural Diversity Database to determine whether any state-listed threatened or endangered species or species of concern occur in the Project area. Arizona does not list species as "endangered" or "threatened," but uses a state ranking system that describes their sensitivity (Arizona Game and Fish Department, 2012). Eleven species listed as critically imperiled, imperiled, or vulnerable in Arizona (desert tortoise, flat-tailed horned lizard, razorback sucker, elf owl, Gila woodpecker, western yellow-billed cuckoo, Yuma Ridgway's rail, cave myotis, Colorado River cotton rat, pocketed free-tailed bat, and western mastiff bat) could occur within the general area of the Project in Arizona. No sensitive plants in Arizona were found to occur in the Project areas.

North Baja identified ten threatened, endangered, of special concern, or fully protected species in California (desert tortoise, flat-tailed horned lizard, razorback sucker, western burrowing owl, elf owl, Gila woodpecker, southwestern willow flycatcher, western yellow-billed cuckoo, Yuma Ridgways's rail, and western mastiff bat) that could occur on or near Project sites in California. Seven plants (Algodones dunes sunflower, giant Spanish-needle, Harwood's milk-vetch, Peirson's milk-vetch, pink fairy-duster,

[9] North Baja's POD was filed in the FERC elibrary on July 10, 2020, and can be found at accession number 20200710-5103.

sand food, and Wiggons' croton) that could occur in the Project areas are listed as rare by the California Native Plant Society. Of the eleven Arizona and ten California sensitive or listed wildlife species, seven wildlife species (desert tortoise, flat-tailed horned lizard, western burrowing owl, elf owl, Gila woodpecker, cave myotis, and western mastiff bat) could occur onsite. Only one plant species (Harwood's milk-vetch) was observed onsite during floristic surveys. No other state species are expected to occur on the Project sites and therefore impacts would not occur to any other species.

As the desert tortoise is federally listed, it has been addressed above under federal threatened and endangered species. Flat-tailed horned lizard and western burrowing owl have been addressed under BLM sensitive species.

Elf owl, Gila woodpecker, and cave myotis (*Myotis velifer*) could be present at the Ehrenberg Compressor Station and El Paso Meter Station. Western mastiff bat could occur at the Ogilby Meter Station. However, no breeding habitat occurs onsite for these species and no individuals were observed during field surveys.

Impacts on these species would be similar to other wildlife discussed in section B.4.2. If individuals of these species are in the Project area during construction, it is likely that they would be deterred from approaching given the noise and level of activity during construction.

Special-status plant surveys were conducted on May 22 and 23, 2019, and on March 25, 2020. The surveys were conducted in accordance with guidelines published by the California Native Plant Society (2001), CDFW (2018), and USFWS (2000). Harwood's milk-vetch, a California Rare Plant Rank 2B.2 species, was observed throughout the temporary workspace and along and within the access road at the Ogilby Meter Station Project site.

To minimize impacts on Harwood's milk-vetch, North Baja would implement its ECS, which includes the following measures:

- conserving topsoil;
- installing erosion control devices;
- keeping work areas clean of debris;
- preventing and cleaning spills; and
- restoring temporary workspaces.

Given that North Baja would restore the Project area by mulching and reseeding any disturbed areas within 6 days of final grading (weather and soil conditions permitting), implement the measures in North Baja's ECS and the FERC Plan, impacts to state-listed species would be sufficiently minimized.

5. Land Use, Recreation, and Visual Resources

A literature review for existing land uses, potential development, and potential land use conflicts was conducted by North Baja in July 2019. As part of the analysis information from the following resources and agency documents and publications were reviewed: EPA (2018); BLM (2015); USGS (2019c); Arizona State Land Department (ASLD) (2019); California Department of Transportation (Caltrans) (2019); Imperial County Planning Department in California (1993, 2019); National Park Service (2019a, 2019b), and USFWS (2019).

A review of federal and state resources and aerial imagery to identify any visually sensitive areas within 0.25 mile of the proposed Project (EPA, 2019d; BLM, 2019b) was also conducted.

5.1 Existing Conditions

The proposed Project consists of additions, modifications, and improvements to three existing facilities on North Baja's pipeline system—the Ehrenberg Compressor Station and El Paso Meter Station in La Paz County, Arizona and the Ogilby Meter Station in Imperial County, California. The Ehrenberg Compressor Station is on 11.56 acres of land within a larger parcel owned by North Baja. The existing El Paso Meter Station is within the Ehrenberg Station site on land owned by North Baja. The Ehrenberg Compressor Station site is bordered by active agricultural and open/disturbed areas. The Ogilby Meter Station is in a rural, undeveloped area on approximately 0.92 acre of BLM-administered public land. The area surrounding the meter station is designated as part of the BLM Imperial Sand Dunes Recreation Area and is characterized by North Baja as open/disturbed land (BLM, 1999; BLM, 2013).

As described above, the Project sites are surrounded by active agricultural and/or open/disturbed areas. Agricultural uses characterized by row crops rotated on a seasonal or yearly basis exist around the western and southern perimeters of the Ehrenberg Compressor Station. Active agriculture is not present in the vicinity of the Ogilby Meter Station. Open/disturbed land includes areas where the native vegetation has been altered or eliminated by development. Open/disturbed land exists along the northern side of the Ehrenberg Compressor Station and along the eastern perimeter adjacent to the El Paso Meter Station. The Ogilby Meter Station is within a larger area of open/disturbed land.

<u>Nearby Land Uses</u>

No residences are within 50 feet of the edge of the Ehrenberg Compressor Station work site. A cluster of 4 residences is about 500 feet north of the compressor station adjacent to the El Paso Natural Gas Company Ehrenberg Office. A truck repair shop is approximately 50 feet east of the existing public site access road (Ox Bow Road) and is associated with a highway commercial area about 2,150 feet northeast of the Ehrenberg Compressor Station site. This highway commercial area contains the truck repair shop, a

fuel service plaza, and a motel.

No existing residences or buildings are within 50 feet of the proposed Ogilby Meter Station construction work area. A highway interchange (Exit 159 on Interstate 8 [I-8]) is about 1,000 feet west of the meter station site. Three gravel pits are 1 mile northeast and 7 prospect pits are 2.5 miles southeast of the Ogilby Meter Station (USGS, 2019).

Landfill and Hazardous Waste Sites

No landfills or hazardous waste sites are within 0.25 mile of the Project sites.

Future Land Use and Planned Development

North Baja reviewed planned residential and commercial/business development through Caltrans (2019); Imperial County construction and bid sites (Construction Bid Sources, 2019; Imperial County, 2019); La Paz County Bid Postings (2019); and the City of El Centro Planning Department (2019). According to this review, no proposed developments or current developments would be within 1 mile of the Ehrenberg Compressor Station, El Paso Meter Station, or Ogilby Meter Station. The surrounding area for the Ehrenberg Compressor Station and El Paso Meter Station is considered rural, and minimal conflicting construction activity is expected to occur within a 5-mile radius of the station.

One proposed construction project on the I-8 Freeway is within 0.25 mile of the Ogilby Meter Station work site (Caltrans, 2019). This construction project's purpose is to reinforce concrete pavement in order to improve roadway conditions.

Land Use Impacts

Temporary and permanent land use impacts from the proposed Project are summarized in table 4. In accordance with the FERC Plan, lands disturbed by the Project's construction would be returned to previous land uses, except for the Ehrenberg Compressor Station expansion area where permanent aboveground facilities would be constructed.

Table 4 Land Use Impacts of Proposed Project [a]						
Facility	Agricultural		Open/Disturbed		Proposed Project Total	
	Construction	Operation	Construction	Operation	Construction	Operation
Ehrenberg Compressor Station	19.41	8.42	0.00	0.00	19.41	8.42
El Paso Meter Station		0.00		0.10		0.10
Ogilby Meter Station	0.00	0.00	3.26	0.00	3.26	0.00
Total	**19.41**	**8.42**	**3.26**	**0.10**	**22.67**	**8.52**

[a] The acreage totals do not include land disturbed within each facility's existing fenceline boundary.

Ehrenberg Compressor Station and El Paso Meter Station

Modification of the Ehrenberg Compressor Station would disturb 19.41 acres of land during construction, of which 8.52 acres would be permanently used for the operation of the modified compressor station and expanded El Paso Meter Station. About 17.4 acres of the construction workspace would be on ASLD property currently in agricultural use (wheat, cotton, or alfalfa on a rotating basis) or open/disturbed land. The new compressor unit would be installed, and two existing compressor units would be restaged within and outside of the existing facility fence line to the west on land currently owned by North Baja, requiring an additional permanent expansion area of approximately 8.42 acres onto land owned by North Baja. This area is also currently in active agricultural use. The permanent footprint of the compressor station would increase from about 11.6 acres to 20.0 acres.

During construction, a short-term disruption of agricultural activities in the area is expected. North Baja would adhere to its ECS during construction in agricultural areas. These areas may be removed from production for one growing season during construction. North Baja stated that it would compensate agricultural tenants for the lost production caused by construction activities. Following construction, the surrounding area would continue to be used as either agricultural or open/disturbed land. Temporarily disturbed areas would be restored, revegetated, and reseeded. Temporarily disturbed agricultural land would be returned to agricultural use after construction is complete. No residences or commercial buildings would be directly impacted by Project work. No occupied buildings are within 50 feet of the proposed Project site or access roads.

A permanent loss of approximately 8.4 acres of land in active agriculture would occur at the Ehrenberg Compressor Station due to its expansion. However, as the expansion site is currently owned by North Baja and the agricultural tenant would receive compensation for lost production, no significant impacts on agricultural lands are anticipated. North Baja would work with the ASLD with respect to the temporary impacts on its land that are in active agricultural use.

The El Paso Meter Station would also be expanded approximately 30 feet to the east and would result in a permanent conversion of 0.10 acre of open/disturbed land to developed land. Existing public (Ox Bow Road) and private roads would be used to access the Ehrenberg Compressor Station site. No additional temporary or permanent access roads would be required during construction or operation of the Project.

Ogilby Meter Station

Installation of the equipment to increase capacity at the Ogilby Meter Station would take place within the existing fenceline boundaries. The meter station is on BLM-administered public lands in California. During construction activities, approximately 3.26 acres of BLM-administered public lands designated as recreation/open space would be required as temporary workspace. As such, Title V of the Federal Land Policy and Management Act authorizes the BLM to issue a Temporary Use Right-of-way for the portions of the Project that encroach on federal lands. Thus, the temporary construction activities at the Ogilby Meter Station would require a Temporary Use Right-of-way from the BLM. No agricultural land or use would be affected at the Ogilby Meter Station.

Construction at the Ogilby Meter Station would have short-term effects on existing land use. No residences or commercial buildings would be impacted by the proposed work. All upgrade work at the Ogilby Meter Station would occur within the existing fenceline boundaries; therefore, no permanent impacts on land use would occur. The upgrades at the Ogilby Meter Station would not result in expansion of the meter station; therefore, no permanent impacts on the surrounding land use would result. Existing public roads (I-8, Ogilby Road, and the Frontage Road) would be used to access the Ogilby Meter Station site.

In summary, due to North Baja's use of its ECS, we conclude that impacts on agricultural land would not be significant. Likewise, because there are no known planned developments within 5 miles of the proposed Project sites, we conclude that no impacts on future land use and planned developments would result from the construction of the Project.

5.2 Public Land and Other Designated Areas

According to the National Park Service, BLM (2015), EPA, ASLD, and USGS, the Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station are not within 0.25 mile of any Native American Reservations, designated Coastal Zone Management Areas, registered national natural landmarks, designated Wilderness Areas, Wild and Scenic Rivers, or designated National Trails.

The Ogilby Meter Station is on public lands designated as the Imperial Sand Dunes Recreation Area by the BLM and Recreation/Open Space by the Imperial County Planning/Building Department General Plan Land Use Map (2019). A full land ownership breakdown for proposed Project workspaces is provided in table 5.

Table 5
Land Ownership Affected by Project (acres) [a]

Facility	North Baja Land		BLM Land		Arizona State Land Department		Proposed Project Total	
	Temporary Workspace	Operation	Construction	Operation	Construction	Operation	Construction	Future Operation
Ehrenberg Compressor Station El Paso Meter Station (adjacent to Ehrenberg Compressor Station)	1.94	8.52	0.00	0.00	17.47	0.00	19.41	8.52
Ogilby Meter Station	0.00	0.00	3.26	0.00	0.00	0.00	3.26	0.00
Total	**1.94**	**8.52**	**3.26**	**0.00**	**17.47**	**0.00**	**22.67**	**8.52**

[a] The acreage totals do not include land disturbed within each facility's existing fenceline boundary including land disturbance required for installation of Project facilities within the existing fenceline boundary of the Ogilby Meter Station.

5.3 Visual Resources

Impacts on visual and/or aesthetic resources would primarily occur during construction as a result of the presence of construction equipment. The visual character of the Project areas is typically a rural landscape with flat terrain used for agriculture or grazing. The new Project facilities would be additions to existing natural gas facilities and would be visually consistent with the existing landscape.

No official visual designation or classification has been assigned to the Ehrenberg Compressor Station or the El Paso Meter Station. The Ehrenberg Compressor Station and El Paso Meter Station are 0.19 mile from the Colorado River; however, the Colorado River is not designated as a National Wild or Scenic River (USFWS, 2019).

As part of the proposed Project, the existing Ehrenberg Compressor Station would be permanently expanded approximately 425 feet to the west. The new facilities would be enclosed in permanent structures similar in size, form, and color to those currently in operation at the compressor station and would not result in a noticeable change to aesthetics from potentially affected viewers. No temporary impacts on federal or state visually sensitive areas would occur within 0.25 mile of the Project, as none are within that distance (EPA, 2019; BLM, 2019b).

The land surrounding Ogilby Meter Station is designated as BLM Visual Resource Management Class II (BLM, 2019a), where the objective is to retain the existing character of the landscape and have only low-level changes to landscape characteristics that do not attract the attention of the casual observer. The Ogilby Meter Station is adjacent to I-8. This section of highway is not designated as a scenic highway or corridor. An electric transmission line is about 170 feet north of the meter station.

Topography at this site is generally flat and provides unobstructed views to the surrounding valleys and distant mountains.

New aboveground facilities installed at Ogilby Meter Station would be constructed within the existing facility footprint and would be similar in size, form, and color to the existing facilities. As a result, there would be no perceptible change to the existing visual character of the surrounding area. The temporary workspace to be disturbed during construction would be restored to the approximate pre-existing conditions upon completion of the Project. During construction, the temporary workspace would not create significant deviations from the surrounding landscape. Because the facility already exists and the new components would be within the existing fence line, modifications to the Ogilby Meter Station would not permanently affect the existing character of the landscape in accordance with the BLM Visual Resource Management Class II Objective. No impacts on federal or state visually sensitive areas would occur within 0.25 mile of the Project, as none are within that distance (EPA, 2019; BLM, 2019b).

6. 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),[10] and to afford the Advisory Council on Historic Preservation an opportunity to comment. North Baja, 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 Effects

The Project area of potential effects (APE) is defined as 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 direct effects APE encompasses the entirety of the proposed Project area, which consists of 27.9 acres at the Ehrenberg Compressor Station and El Paso Meter Station and 3.9 acres at the Ogilby Meter Station. The direct APE includes all areas of construction, operations, and maintenance for the Project. Indirect effects were considered for any historic properties within the viewshed of the Project that are adjacent to the direct APE.

[10] In accordance with 36 CFR 800.16(l)(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, North Baja completed a cultural resources investigation which included background research and a Class III cultural resources inventory (Williams et al., 2019). North Baja surveyed the APE by 5-meter-interval pedestrian transects; except for areas within fenced facilities, which were not surveyed. A tribal monitor was part of the field team conducting the cultural resources survey. No cultural resources were identified within the direct APE at the Ehrenberg Compressor Station, the El Paso Meter Station, or the Ogilby Meter Station.

North Baja identified one previously recorded cultural resource, CA-IMP-7158H, and two historic isolates just outside of the direct APE at the Ogilby Meter Station. The isolated finds are not eligible for inclusion in the NRHP. CA-IMP-7158H is the Knob-Drop 4 161kV transmission line that is part of a network that originally brought in hydroelectric power from the Davis and Parker Dams. The transmission line was brought into service in 1943. CA-IMP-7158H is currently unevaluated for listing in the NRHP. North Baja has indicated that the Project would only have a temporary visual effect on CA-IMP-7158H during construction activities and that the temporary staging area would be rehabilitated upon completion of the work and restored to pre-Project conditions. Therefore, North Baja concluded that the Project would have no effect on historic properties.

As the Ogilby Meter Station APE is on BLM-administered public lands, North Baja submitted the results and recommendations of the Class III cultural resources inventory to the BLM El Centro Field Office for review. In email correspondence dated January 27, 2020, the BLM accepted the Class III inventory report as final.

On March 4, 2020, North Baja submitted the Class III cultural resources inventory report to the Arizona and California State Historic Preservation Officers (SHPOs) for review and concurrence. The Arizona SHPO concurred with North Baja's recommendation that the Project would have no effect on any existing cultural resources at the Ehrenberg Compressor Station and El Paso Meter Station on March 6, 2020.

On April 17, 2020, the California SHPO filed a letter with FERC objecting to a finding of no adverse effects regarding Project activities at the Ogilby Meter Station because efforts to identify historic properties through consultation pursuant to 36 CFR 800.4(a)(3) remain incomplete at this time. North Baja revised the Class III cultural resources inventory report to include more information on tribal consultation for the Project. North Baja submitted the revised report to the California SHPO on July 7, 2020. Subsequently, the California SHPO responded in a letter dated July 21, 2020, that following the review of the supporting documentation, the SHPO does not object to a

finding of no adverse effect for the Project. North Baja also submitted the revised cultural resources inventory report to the Arizona SHPO on July 1, 2020. The Arizona SHPO responded via email on July 31, 2020, that its concurrence on finding of effect from the original report still stands.

FERC agrees that the proposed Project would have no adverse effect on historic properties.

6.3 Tribal Consultation

North Baja contacted the following Native American tribes regarding the proposed Project: Barona Group of the Capitan Grande, Campo Band of Diegueno Mission Indians, Chemehuevi Indian Tribe, Cocopah Indian Tribe, Colorado River Indian Tribes, Ewiiaapaayp Tribe, Fort Mojave Indian Tribe, Fort Yuma-Quechan Tribe, Hopi Tribe, Iipay Nation of Santa Ysabel, Inaja-Cosmit Band of Indians, Jamul Indian Village, La Posta Band of Diegueno Mission Indians, Manzanita Band of Kumeyaay Nation, Mesa Grande Band of Diegueno Mission Indians, Moapa Band of Paiute Indians, Pueblo of Zuni, Fort Yuma Quechan Tribe, San Pasqual Band of Diegueno Mission Indians, Sycuan Band of the Kumeyaay Nation, Torres-Martinez Desert Cahuilla Indians, Viejas Band of Kumeyaay Indians, and the Yavapai-Prescott Indian Tribe.

North Baja sent tribal outreach letters to the tribes in October and November 2019 to inform them about the Project and to request information regarding potential impacts on cultural and historic resources posed by the proposed Project. North Baja conducted follow-up telephone calls to the tribes in January 2020.

In email correspondence on November 5, 2019, the Chemehuevi Indian Tribe indicated that the Project is not within the areas frequented by Chemehuevi people; therefore, they would defer all comments to the local tribes.

On November 8, 2019, the Viejas Band of Kumeyaay Indians sent a letter to North Baja indicating that the Project site has cultural significance or ties to Viejas. The tribe requested that a Kumeyaay Cultural Monitor be on site for ground-disturbing activities to inform the tribe of any new developments such as inadvertent discoveries. North Baja states it will contact tribes in the event of inadvertent discoveries of interest to tribes.

The San Pasqual Band of Mission Indians contacted North Baja via letter on November 15, 2019, indicating that the Project is beyond the boundaries of their reservation and the territory the tribe considers its Traditional Use Area. Therefore, the San Pasqual Band of Mission Indians would defer to tribes in closer proximity to the Project area.

In a series of email communications between the Fort Yuma Quechan Tribe and North Baja from November 2019 through March 2020, several requests and concerns were raised by the tribe. In their original email dated November 5, 2019, the tribe indicated that they could not comment on the Project as they were not provided sufficient information with regard to the survey. The tribe requested additional information. North Baja provided a copy of the cultural resources inventory report to the Fort Yuma Quechan Tribe on March 2, 2020. The tribe emailed North Baja several comments and suggested revisions to the cultural resources survey report and inquired as to why the tribe was not provided an opportunity to serve as the Native American monitor for the cultural resources survey of the Ogilby Meter Station. North Baja is in the process of responding to the Fort Yuma Quechan Tribe's concerns.

On November 12, 2019, the Hopi Tribe sent a letter to North Baja requesting government-to-government consultation with FERC on this federal undertaking and that the tribe be provided copies of the cultural resources survey report and the EA for review and comment. Additionally, the tribe requested that if prehistoric sites are identified will be adversely affected by Project activities, that continued consultation be conducted and that the tribe be provided a copy of any proposed treatment plans for review and comment. North Baja provided a copy of the cultural resources inventory report to the Hopi Tribe on March 26, 2020. North Baja has also included language in the Unanticipated Discovery Plan for the Project that any evaluations and treatment plans for resources that may be of interest to tribes, will be conducted and developed in consultation with tribes. We are issuing this EA for public review and comment; therefore, the Hopi Tribe will have the opportunity to review and comment on the EA.

In a January 31, 2020 letter sent to North Baja, the Colorado River Indian Tribes expressed concern regarding the removal of artifacts from the Project area and corresponding destruction of the tribes' footprint on this landscape. As such, the tribes request that all prehistoric cultural resources be avoided if feasible. If avoidance of sites is infeasible, then the tribes request that the resources be left *in situ* or reburied in a nearby area, after consultation. The Colorado River Indian Tribes also requested government-to-government consultation with FERC to discuss their concerns. As previously stated, evaluation and/or treatment plans for inadvertent discoveries of interest to tribes will be developed in consultation with tribes.

On January 31, 2020, FERC initiated Section 106 consultation with the same tribes contacted by North Baja via the Project NOI. The Viejas Band of Kumeyaay Indians sent a letter to FERC on February 24, 2020, indicating that the Project area may contain many sacred sites to the Kumeyaay people and that these sites be avoided with adequate buffer zones. The tribe also requested that all NEPA, California Environmental Quality Act, and Native American Graves Protection and Repatriation Act laws be followed and that the tribe be contacted upon any changes or inadvertent discoveries. North Baja has committed to contacting interested parties in the event of inadvertent

discoveries in the Project's Unanticipated Discoveries Plan, and, therefore will contact the tribe as appropriate.

On April 23, 2020, the Fort Yuma Quechan Tribe filed with FERC a letter with comments on the Project cultural resources inventory report. The tribe provided a number of suggested revisions to the report including comments on the incorporation of appropriate cultural resources laws, background research, and field methods. Further, the Fort Yuma Quechan Tribe inquired about tribal outreach efforts and Native American participation during the cultural resources field investigation, particularly why only one tribe was invited to accompany archaeologists during the survey. FERC requested that North Baja consult with the tribe and address their concerns. North Baja consulted with the tribe and provided them the revised cultural resources report for their review and comment.

FERC has not received responses from the other tribes contacted regarding the Project.

6.4 Unanticipated Discoveries Plan

North Baja developed a Project-specific plan for the unanticipated discovery of cultural resources and/or human remains. The Unanticipated Discoveries 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 FERC, the BLM, and the Arizona and California SHPOs for review and comment. FERC and the BLM requested minor changes to the plan. North Baja provided copies of the revised plan to FERC, the BLM, and the Arizona and California SHPOs. We find the plan to be acceptable.

6.5 Compliance with the National Historic Preservation Act

Section 106 compliance requirements with the NHPA for the proposed Project are complete.

7. Air Quality

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

7.1 Existing Environment

The Project's areas are within La Paz County, Arizona and Imperial County, California, in southwestern Arizona and southeastern California, respectively. The

climate in La Paz and Imperial Counties is characterized by hot summers (average high of 106.4 °F in June through August) and generally mild winters (average low of 47.4 °F in December through February). The Project region experiences an average annual precipitation of around 5.0 inches of rain, of which about 1.8 inches falls during the winter months (National Climatic Data Center, 2019).

Ambient air quality is protected by the Clean Air Act (CAA) of 1970, as amended in 1977 and 1990. The EPA oversees the implementation of the CAA and establishes National Ambient Air Quality Standards (NAAQS) to protect human health and welfare.[11] NAAQS have been developed for seven "criteria air pollutants" including nitrogen dioxide (NO_2), carbon monoxide (CO), ozone, sulfur dioxide (SO_2), 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 (PM_{10}), 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 (EPA, 2019g). At the state level, the State of Arizona has adopted the NAAQS by reference and does not have any additional standards. The California Clean Air Act of 1988 requires California air districts to develop and implement strategies to attain the California Ambient Air Quality Standards. For some pollutants, California's standards are more stringent than the NAAQS. Additional pollutants, such as volatile organic compounds (VOC) and hazardous air pollutants (HAP), are emitted during fossil fuel combustion. These pollutants are regulated through various components of the CAA that are discussed further in section B.7.2, below.

The EPA and state and local agencies have established a network of ambient air quality monitoring stations to measure concentrations of criteria pollutants across the United States (EPA, 2019h). 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). La Paz County is designated as being in attainment for all criteria pollutants. Imperial County is classified as nonattainment for 8-hour ozone and PM_{10} (EPA, 2019i).

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 (CO_2), methane, and nitrous oxide are GHGs that are emitted during fossil-fuel combustion. GHGs are non-toxic and non-hazardous at normal ambient concentrations, and there are no applicable

[11] The current NAAQS are listed on the EPA's website at https://www.epa.gov/criteria-air-pollutants/naaqs-table.

ambient standards or emission limits for GHGs under the CAA. The primary GHGs that would be emitted by the Project are CO_2, methane, and nitrous oxide (NO_x). During construction and operation of the Project, these GHGs would be emitted from the majority of construction equipment, the proposed new and existing compressor units at the modified Ehrenberg Compressor Station, as well as fugitive methane leaks from each of the modified aboveground facilities.

Emissions of GHGs are typically quantified and regulated in units of carbon dioxide equivalents (CO_2e). The CO_2e 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 CO_2. For comparison, CO_2 has a GWP of 1, methane has a GWP of 25, and NO_x has a GWP of 298 (EPA 2019e).[12]

7.2 Regulatory Requirements

The provisions of the CAA that are applicable to the Project, which are limited to the proposed modifications at the existing Ehrenberg Compressor Station, are discussed below. See section B.7.5 for estimated potential operational emissions for the Project facilities, including the modified Ehrenberg Compressor Station.

Prevention of Significant Deterioration and Nonattainment New Source Review

Proposed new or modified air pollutant emission sources must undergo a New Source Review (NSR) prior to construction or operation. Through the NSR permitting process, state and federal regulatory agencies review and approve project emissions increases or changes, emissions controls, and various other details to ensure air quality does not deteriorate as a result of new or modified existing emission sources. The two basic groups of NSR are major source NSR and minor source NSR. Major source NSR has two components: Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR). PSD, NNSR, and minor source NSR are applicable to projects depending on the size of the project, the projected emissions, and if the project is proposed in an attainment area or nonattainment/maintenance area. PSD regulations define a major source as any source type belonging to a list of 28 specifically listed source categories that have a potential to emit 100 tons per year (tpy) or more of any regulated pollutant or 250 tpy for sources not among the listed source categories (such as natural gas compressor stations). These emission rate levels are referred to as the PSD major source thresholds.

[12] 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.

The modified Ehrenberg Compressor Station would not exceed the PSD major source thresholds for any pollutants, and would be within an attainment area. Therefore, the proposed construction and operation of the modified Ehrenberg Compressor Station does not trigger PSD or NNSR Review.

Class I Areas

Under the PSD program, 156 mandatory federal Class I areas are currently designated by the EPA to protect certain areas (e.g., wilderness areas, national parks, national forests) to ensure that deterioration of existing air quality-related values, such as visibility, is minimized in these areas. Relative to Class II and III areas, Class I areas have the most restrictive allowable PSD air quality increments. For a new major source or major modification located within 62 miles (100 kilometers) of a Class I area, the facility is required to notify the appropriate federal land manager and assess the impacts of that project on the nearby Class I area.

Federal land managers are required under the CAA Amendments of 1977 to "protect the natural and cultural resources of Class I areas from the adverse impacts of air pollution." In order to do so, federal land managers must identify or define the air quality related values (AQRV) within their jurisdiction. An AQRV is a resource that may be adversely affected by a change in air quality. The resource may include visibility or a specific scenic, cultural, physical, biological, ecological, or recreational resource identified by the federal land manager for a particular area. Federal agency actions must not adversely affect AQRVs at any nearby Class I area.

Although the modified Ehrenberg Compressor Station would be subject to Title V permitting requirements, as discussed below, its emissions would remain well below PSD major source thresholds. There are no Class I areas within 62 miles (100 kilometers) of the Ehrenberg Compressor Station; the nearest Class I areas is the Joshua Tree National Park, about 95 miles (150 kilometers) west of the station. We expect that the Project's incremental increase in emissions would negligibly impact this Class I area.

Title V Permitting

Title V is an operating air permit program run by each state for each facility that is considered a "major source." The major source threshold for an air emission source is 100 tpy for criteria pollutants, 10 tpy for any single HAP, and 25 tpy for total HAPs. The proposed modified Ehrenberg Compressor Station meets the definition of a major source and would therefore require a Title V permit as further described in section B.7.3, below.

New Source Performance Standards

The EPA 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

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

NSPS Subpart OOOOa sets emission standards and compliance schedules for VOC and SO_2 emissions for new, modified, or reconstructed wet seal centrifugal compressor and reciprocating compressors; limits for bleed rates for natural-gas driven pneumatic controllers; requires work practice standards for compressor rod packing compressor units; and sets fugitive leak monitoring and repair requirements for compressor stations. As detailed in North Baja's air quality permit application for the proposed modified Ehrenberg Compressor Station, the station was not previously subject to Subpart OOOOa, as all of the equipment at the existing station was installed prior to the Subpart OOOOa applicability date. However, the new turbine at the station would be subject to fugitive emissions requirements of Subpart OOOOa under 40 CFR 60.5365a(j).

NSPS Subpart KKKK applies to stationary combustion turbines with a heat input at peak load equal to or greater than 10 million British thermal units per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005. The new turbine at the modified Ehrenberg Compresssor Station would have a heat input value of greater than 50 million British thermal units per hour and thus is subject to Subpart KKKK.

North Baja would comply with the all applicable NSPS standards and requirements, as necessary and as stated in the air permit issued by the ADEQ for the modified Ehrenberg Compressor Station.

National Emission Standards for Hazardous Air Pollutants

The 1990 CAA Amendments established a list of 189 HAPs, resulting in the promulgation of National Emission Standards for Hazardous Air Pollutants. 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 modified Ehrenberg Compressor Station would have the potential to emit less than the combined HAP total threshold of 25 tpy and single HAP threshold of 10 tpy, and is therefore considered an area (and not major) source of HAPs.

General Conformity

The lead federal agency must conduct a conformity analysis if a federal action would result in the generation of emissions that would exceed the conformity threshold levels of the pollutant(s) for which a county is designated nonattainment or maintenance (EPA, 2003). Estimated construction emissions for the modified Ehrenberg Compressor Station and El Paso Meter Station are not subject to review under the general conformity thresholds because, as indicated above, these facilities fall within an area classified by the EPA as attainment/unclassifiable for all criteria pollutants (EPA, 2017i). The Project's

construction at the Ogilby Meter Station would generate emissions well under any general conformity threshold, and would therefore not be subject to a conformity analysis.

Mandatory Greenhouse Gas Reporting Rule

The EPA's Mandatory Reporting of Greenhouse Gases Rule requires reporting from applicable sources of GHG emissions if they emit greater than or equal to 25,000 metric tons of GHG (as CO_2e) in 1 year. The Mandatory Reporting Rule does not require emission control devices and is strictly a reporting requirement for stationary sources based on actual emissions. Although the rule does not apply to construction emissions, we have provided GHG construction emission estimates, as CO_2e, for accounting and disclosure purposes in table 6 below. Operational GHG emission estimates for the Project are presented, as CO_2e, in Table 7. Based on the emission estimates presented, actual GHG emissions from operation of the modified Ehrenberg Compressor Station would likely exceed the 25,000 tpy reporting threshold, and reporting requirements for the Mandatory Reporting Rule would therefore be applicable to the Project.

Methane Challenge Program

In August 2016, the EPA officially approved the ONE Future Commitment Option under the Natural Gas STAR Methane Challenge Program. North Baja participates in the Methane Challenge Program as a ONE Future Commitment Partner. North Baja's methane emissions information is submitted annually to the ONE Future Coalition and reported for the Methane Challenge Program. As part of the Natural Gas STAR program, North Baja reports annual pipeline methane releases. Through EPA's program, North Baja conducts leak surveys at all of its facilities as needed, and would do the same for the Project's facilities.

7.3 State Air Quality Regulations

In addition to federal standards, the ADEQ establishes additional standards for general operational requirements, particulate matter and opacity, fuel limitations, CO, NO_x, and Reasonably Available Control Technology requirements. The Ehrenberg Compressor Station currently operates under a Class II Synthetic Minor Permit issued by the ADEQ. North Baja submitted its state air permit application for the proposed modified Ehrenberg Compressor Station to the ADEQ on December 20, 2019[13] and the ADEQ issued a Title V Air Permit Amendment Class I for the modified station on June 30, 2020.[14]

[13] Available at: https://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=15462612 under accession number 20200211-5171.
[14] Available at: https://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=15597804 under accession number 20200805-5155.

7.4 Construction Emissions Impacts and Mitigation

Project construction would result in temporary, localized emissions that would last the duration of construction activities (estimated at 9 months). Exhaust emissions would be generated by the use of heavy equipment and trucks powered by diesel or gasoline engines. Exhaust emissions would also be generated by delivery vehicles and construction workers commuting to and from work areas.

Construction activities would also result in the temporary generation of fugitive dust due to land clearing and grading, ground excavation, and driving on unpaved roads. 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.

Construction emission estimates are 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 EPA MOVES2014a off-road emission factors, EPA's AP-42 emission factors (EPA, 2019f), other EPA emission factors for control of open fugitive dust sources (EPA, 1988), and GWP factors found in 40 CFR 98 (EPA, 2019e).

Table 6 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, and vehicles used to deliver equipment/materials to each of the construction sites.

Table 6 Construction Emissions (tons per construction duration)								
Activity	**NO_x**	**CO**	**VOC**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**Total HAP**	**CO_2e**
Modifications to Ehrenberg Compressor Station and El Paso Meter Station								
Construction equipment (off-road)	3.07	2.48	0.36	0.49	0.49	0.21	0.06	1,492
Worker and on-road construction equipment commuting	0.99	0.98	0.12	0.04	0.04	<0.01	0.02	273
Fugitive dust at construction sites	-	-	-	1.27	0.19	-	-	-
Roadway (e.g. equipment delivery) fugitive dust	-	-	-	0.37	0.36	-	-	-
Subtotal	4.06	3.46	0.48	2.17	1.08	0.21	0.08	1,765
Modifications to Ogilby Meter Station								
Construction equipment (off-road)	0.47	0.41	0.05	0.07	0.07	0.03	0.01	220
Worker and on-road construction equipment commuting	0.21	1.08	0.05	0.01	0.01	<0.01	0.02	142
Fugitive dust at construction sites	-	-	-	0.05	0.01	-	-	-
Roadway (e.g. equipment delivery) fugitive dust	-	-	-	<0.01	<0.01	-	-	-
Subtotal	0.68	1.49	0.10	0.13	0.09	0.03	0.03	362
Total Project	**4.74**	**4.95**	**0.58**	**2.30**	**1.17**	**0.24**	**0.11**	**2,127**

In order to mitigate and minimize fugitive dust, North Baja would implement the following measures:

- utilize existing public and private roads and for access during construction wherever possible;
- apply water one or more times per day to all affected unpaved roads, unpaved haul/access roads, and staging areas (when in use);
- apply a water/magnesium chloride mixture, or other approved dust suppressant on construction workspaces and unpaved access roads, as needed;

- set a speed limit of 15 mph[15] for vehicles and equipment on all roads in the Project area;
- clean up track-out and/or carry-out areas at paved road access points at a minimum of once every 48 hours;
- install gravel pads adjacent to paved roadways to limit track-out, and use clearly established and enforced traffic patterns to route traffic over track-out control devices;
- apply water to spray handling and transfer points for bulk transfer operations at least 15 minutes before use;
- cover all haul truck loads or maintaining at least six inches of freeboard space in each cargo compartment;
- ensure that all haul truck cargo compartments are constructed and maintained to minimize spillage and loss of materials;
- clean or wash each cargo compartment at the delivery site after removal of the bulk materials;
- maintain soils in a stabilized condition where support equipment and vehicles will operate, including watering disturbed soils to form a crust; and
- restrict vehicular access on Project construction surfaces during periods of inactivity by means of either fencing or signage.

The above measures and requirements that North Baja would employ during Project construction and operation would ensure that impacts of fugitive dust would be minimized. Due to the distance between Project construction sites and the nearest residences, we anticipate that dust impacts on these residences, combined with the above-proposed mitigation, would be minimal.

In general, emissions from Project construction would occur over the duration of construction activity and would be emitted at different times throughout the Project areas. Construction emissions would be relatively minor and would result in short-term, localized impacts in the immediate vicinity of construction work areas. With the mitigation measures proposed by North Baja, we conclude that air quality impacts from construction would be temporary and would not result in a significant impact on local or regional air quality.

7.5 Operational Emissions Impacts and Mitigation

The Project would generate air emissions during operation of the modified Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station. In addition to criteria pollutant emissions from the modified Ehrenberg Compressor Station, operation of the compressor station and modified meter stations would result in fugitive emissions from minor leaks associated with piping components and valves.

[15] See section B.4.3.

Table 7 provides estimates of the potential annual emissions at the proposed modified Ehrenberg Compressor Station. These estimated emissions are based on manufacturers' data, AP-42 emission factor data (EPA, 2019f), GHG emission methodology found in 40 CFR 98 (EPA, 2019e), EPA TANKS 4.09d, and assumptions that the station operates at full capacity for an entire year (i.e., 8,760 hours per year), with the exception of the emergency generator, which would be permitted to operate 500 hours per year.

Table 7
Potential Operational Emissions for the Modified Ehrenberg Compressor Station (tons per year)

Emission Source	NO_x	CO	VOC	PM_{10}	$PM_{2.5}$	SO_2	Total HAP	CO_2e
Modified Ehrenberg Compressor Station								
Project turbine	52.45	70.44	7.47	6.27	6.27	0.68	0.98	111,317
Fugitive emissions from Project turbine	-	-	15.02	-	-	-	-	21,926
Compressor unit blowdowns from Project turbine	-	-	5.97	-	-	-	-	8,454
Fuel gas heater	0.38	0.32	0.02	0.03	0.03	<0.01	0.01	449
Liquid storage tank	-	-	0.02	-	-	-	-	-
Emergency generator	1.20	2.39	0.60	0.02	0.02	<0.01	0.15	247
Subtotal Project sources	**54.03**	**73.15**	**29.1**	**6.32**	**6.32**	**0.68**	**1.14**	**142,393**
Emissions from existing Station equipment [a]	64.47	74.03	30.81	3.96	3.96	2.03	0.54	211,382
Total for modified Station	**118.5**	**147.2**	**44.7**	**10.28**	**10.28**	**2.71**	**1.67**	**353,775**

[a] North Baja has not indicated that any change in potential emissions from the existing station equipment would occur as the result of the proposed restaging of two existing turbine compressor units to provide second-stage compression in series flow.

Fugitive emissions releases from the modified El Paso and Ogilby Meter Stations are not expected to increase over current levels following the proposed Project modifications.

Compressor unit blowdowns (gas venting) can occur during initial construction/ testing, operational startup and shutdown, maintenance activities, and during emergency purposes. The emission estimate due to blowdown events attributed to the proposed new turbine at the Ehrenberg Compressor Station are provided in table 7 above. During normal operations of the modified station, blowdowns resulting from compressor startup/shutdown and during maintenance activities would be infrequent.

Fugitive emissions are minor leaks that would occur at valves, seals, and other piping components, and from operation and maintenance activities at the modified Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station. As indicated in section B.7.2 above, North Baja must comply with the standards in 40 CFR 60 Subpart OOOOa for the proposed new turbine at the modified Ehrenberg Compressor Station.

Air Quality Modeling

North Baja completed an air quality dispersion model to determine the impacts of emissions from the proposed modified Ehrenberg Compressor Station on regional air quality. The analysis was conducted using the EPA AERMOD model version 18081 and methodology outlined in EPA and ADEQ guidance. The analysis assumed that the modified station would be running at full capacity (i.e., 8,760 hours per year at maximum emission rates). The model estimates the maximum predicted concentrations of criteria pollutants emitted from the compressor station using conservative assumptions. Background concentrations from the nearest air monitors were then added to the maximum predicted concentrations from the model and the total was compared to the NAAQS. The model results are provided in table 8 below.

Table 8
Predicted Air Quality Impacts of the Modified Ehrenberg Compressor Station ($\mu g/m^3$)

Pollutant	Averaging Period	Existing Ambient Background Concentration [a]	Maximum Modeled Concentration	Combined Background and Maximum Modeled	NAAQS
CO	1-hour	2,748	124.09	2,872	40,000
	8-hour	2,290	29.27	2,319	10,000
NO_2 [b]	1-hour	95.88	26.59	122.5	188
	Annual	26.83	1.22	28.0	100
$PM_{2.5}$	24-Hour	11.52	0.52	11.5	35
	Annual	4.42	0.12	4.4	12
PM_{10}	24-Hour	79.80	0.99	80.8	150
SO_2	1-Hour	15.72	6.54	22.3	196
	3-hour	18.86	7.85	26.7	1,300

$\mu g/m^3$ = micrograms per cubic meter
[a] Background concentrations obtained from the JLG Supersite monitor (NO_2, CO, SO_2; Site ID 04-013-9997) and the Alamo Lake, Arizona monitor (PM_{10}, $PM_{2.5}$; Site ID 04-012-8000).
[b] NO_2 is converted from total NO_x by multiplying the modeled emission rate by 0.8 in accordance with EPA's Ambient Ratio Method (EPA 2011).

The results in table 8 indicate that the combined total of existing background and maximum modeled concentrations are less than the applicable NAAQS for all pollutants. Therefore, the Project would not cause or significantly contribute to a degradation of ambient air quality. The Project would result in continued compliance with the NAAQS, which are established to be protective of human health, including sensitive populations such as children, the elderly, and asthmatics.

8. 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 vegetation 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 sound

levels during late evening and early morning hours (between the hours of 10:00 p.m. and 7:00 a.m.). 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).

8.1 Federal Noise Regulations

In 1974, the EPA published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA, 1974). This document provides information for state and local governments to use in developing their own ambient noise standards. The EPA 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 noise-sensitive areas (NSA). NSAs are defined as homes, schools, churches, or any location where people reside or gather. FERC requires that the noise attributable to any new or modified compressor station during full load operation not exceed an L_{dn} of 55 dBA at any NSAs. Due to the 10-dB 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.

We identified no state or local noise regulations applicable to the Project.

8.2 Ambient Noise Conditions

The Ehrenberg Compressor Station and adjoining El Paso Meter Station, and the Ogilby Meter Station are in predominantly rural and undeveloped areas within La Paz County, Arizona and Imperial County, California, respectively. On July 3 and 4, 2019, North Baja completed ambient sound surveys to measure the existing sound levels during the daytime and nighttime at the nearest NSAs to the existing Ehrenberg Compressor Station and El Paso Meter Station site and existing Ogilby Meter Station site. The results of the ambient sound surveys are provided in table 9, below.

8.3 Construction Noise Impacts and Mitigation

Noise would be generated during construction of the Project. Construction activities in any one area could last from several weeks to several months on an intermittent basis. While individuals in the immediate vicinity of the construction activities would experience an increase in noise, this effect would be temporary and local. According to North Baja's analysis, noise from Project construction could be audible at five identified NSAs within 1 mile of the Ehrenberg Compressor Station and El Paso Meter Station sites (particularly one NSA approximately 1,350 feet north of the sites),

and especially between the early morning hours of 4:00 a.m. and 7:00 a.m. and considering the quiet, rural characterization of the area surrounding the sites (Federal Highway Administration, 2006). To minimize Project construction impacts on nearby NSAs, North Baja would limit noise-generating activities prior to 7:00 a.m. to the extent possible. Construction performed prior to 7:00 a.m. would include activities that produce relatively low levels of noise (e.g., X-ray operations, hydrotesting, internal building work, and tie-in of facilities). Due to the distance of construction sites from the nearest NSAs, the temporary nature of construction activities, and North Baja's plan to limit its noise-producing construction activities to the extent feasible during nighttime hours, we conclude that noise from Project construction would not result in significant noise impacts.

8.4 Operation Noise Impacts and Mitigation

The proposed turbine at the Ehrenberg Compressor Station and modified El Paso Meter Station would add to noise generated from operating the stations on a continuous basis (i.e., up to 24 hours per day). The noise impact associated with the modified stations would attenuate with distance.

The results of the ambient sound survey were combined with the predicted noise impacts from the proposed compressor station equipment to determine the noise impacts from operation of the compressor station at each NSA. The noise survey for the proposed modified Ehrenberg Compressor Station also incorporates noise control measures for operational noise. Noise control measures that North Baja would incorporate into the modified station include the following treatments, further detailed in section 6.0 of North Baja's Pre-Construction Sound Level Study:

- new compressor building and associated doors and ventilation systems having specified sound transmission loss requirements;
- specified insertion losses for the Project turbine exhaust and intake silencer systems;
- sound power level specifications for the turbine's associated gas aftercooler fans; and
- acoustical lagging (high-performance sound sheathing material) on the turbine's associated station piping and filter separators.

The operational noise analysis in table 9 estimates that the combined operation of the modified Ehrenberg Compressor Station and El Paso Meter Station would likely not contribute a perceptible increase in existing noise levels at the closest NSAs.

Blowdown events generate noise at compressor stations and occur when pressure in the compressor casing, piping, or the entire station must be released in a controlled manner. Blowdown events cause a temporary increase in sound levels that would typically last for about 1 to 5 minutes. North Baja would install a blowdown silencer on

the new turbine compressor unit specified to meet an A-weighted sound level of 75 dBA at 50 feet. This mitigated blowdown sound level is predicted to result in a noise level of approximately 45.4 dBA at the nearest NSA (NSA 3 listed in table 9 below).

Table 9
Noise Analysis for the combined operation of the modified Ehrenberg Compressor Station and El Paso Meter Station

NSA	Type	Distance and Direction from Stations	Ambient Back-ground L_{dn} Noise Levels (dBA) [a]	Full Load L_{dn} Contrib-ution from Existing Stations (dBA) [b]	Predicted L_{dn} Attributable to Project Modifications (dBA)	Predicted L_{dn} Contrib-ution from modified Stations (dBA)	Total L_{dn} Noise Level (dBA)	Predicted Change in L_{dn} from Existing Ambient (dB)
NSA 1	residence	2,350 feet NW	57.7	44	42.4	46.3	58.0	0.3
NSA 2	residence	4,750 feet SW	48.1	36	35.6	38.8	48.6	0.5
NSA 3	residence	1,350 feet N	52.9	44	51.6	52.3	55.6	2.7
NSA 4	hotel	3,050 feet NE	66.5	36	38.4	40.4	66.5	0.0
NSA 5	residence	3,450 feet NNE	64.4	34	35.3	37.7	64.4	0.0

[a] Noise sources present during the survey included traffic on I-10, farming equipment, birds and insects, and other road traffic.
[b] Post-construction noise survey results filed in Docket No. CP01-22-000 under Accession No. 20031210-0156.

The Ogilby Meter Station is approximately 2.5 miles away from the nearest NSA; therefore, the modifications to the Ogilby Meter Station are not expected to result in any increase in noise at NSAs. Table 10 below summarizes the results of the ambient sound survey and operational noise analysis for the Ogilby Meter Station.

Table 10
Noise Analysis for the modified Ogilby Meter Station

NSA	Type	Distance and Direction from Station	Ambient Background L_{dn} Noise Levels (dBA)	Predicted L_{dn} Noise Level Contribution from Station (dBA)	Predicted Total L_{dn} Noise Level (dBA)	Predicted Change in L_{dn} from Existing Ambient (dB)
NSA 1	residence	13,500 feet E	63.2	0.0	63.2	0.0

[a] Noise sources present during the survey were primarily attributed to traffic on I-8.

While the analysis summarized in table 9 above predicts that noise levels attributable to the combined operation of the modified Ehrenberg Compressor Station and

El Paso Meter Station would be below our 55 dBA L_{dn} requirement at the nearest NSAs, to verify compliance with the FERC's noise standards, **we recommend that**:

- **North Baja should file with the Secretary of the Commission (Secretary) a noise survey for the combined operation of the modified Ehrenberg Compressor Station and El Paso Meter Station no later than 60 days after placing both modified stations into service. If a full power load condition noise survey is not possible, North Baja should file an interim survey at the maximum possible power load within 60 days of placing both stations into service and file the full power load survey within 6 months. If the noise attributable to operation of all equipment at both stations under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, North Baja 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.

Due to the distance from the nearest NSA to the modified Ogilby Meter Station and predicted noise levels from the modified station that would not be detectable at the nearest NSA, we do not recommend that a post-construction noise survey be conducted for this station, which would remain in compliance with the FERC's L_{dn} of 55 dBA noise criterion at nearby NSAs.

While existing noise levels would be affected by the operation of the modified Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station within the vicinity of each station, based on our analyses, North Baja's proposed noise mitigation measures, and our recommendation stated above, we conclude that the Project would not result in significant noise impacts on any nearby NSAs.

9. Reliability and Safety

The pressurization of natural gas at a compressor station involves some risk to the public in the event of an accident and subsequent release of gas. The greatest hazard is a fire or explosion following a leak, or rupture at the facility. 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.

The compressor station and meter stations must 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 facility accidents and failures.

Subparts within 49 CFR 192 address compressor stations, service lines, customer meters, and valves. The facilities must be designed, constructed, and operated to meet or exceed these specifications. Part 192 also requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in an emergency.

Sections 192.163 – 192.173 of 49 CFR specifically addresses design criteria for compressor stations, including specific design requirements for: location, building design, emergency shut-down, pressure control, ventilation, and alarms. In addition, first aid, and safety equipment would be maintained in accordance with Occupational Safety and Health Administration regulations in 29 CFR 1910. The emergency shut-down system at the modified Ehrenberg Compressor Station would comply with DOT regulations found in 49 CFR 192.167 and with additional safety systems addressed in sections 192.169 and 192.171.

Additionally, the operator must establish a continuing education program to enable the public, government officials, and others to recognize an emergency at the facility and report it to appropriate public officials. North Baja would provide the appropriate training to local emergency service personnel before the facilities are placed in service.

North Baja's construction and operation of the modified Ehrenberg Compressor Station, El Paso Meter Station, and Ogilby Meter Station would represent a minimum increase in risk to the nearby public and we are confident that with implementation of the required design criteria for the design of the modified facilities, that all Project components would be constructed and operated safely.

10. Cumulative Impacts

In accordance with NEPA and with FERC policy, we identified other actions in the vicinity of the Project facilities and evaluated the potential for a cumulative impact on the environment. As defined by the CEQ, a cumulative effect is the impact on the environment that results from the incremental impact of the action when added to other past, present, and 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. The CEQ guidance states that an adequate cumulative effects analysis may be conducted by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions (CEQ, 1997). In this analysis, we consider the impacts of past projects within defined areas of influence as part of the affected environment (environmental baseline) which were described and evaluated in the preceding environmental analysis.

However, present effects of past actions that are relevant and useful are also considered. Table 11 summarizes the resource-specific geographic scopes that were considered in this analysis.

We have evaluated the cumulative impacts of the proposed Project consistent with other recent assessments issued by the Commission and in accordance with recommended CEQ and EPA methodologies (CEQ, 1997; EPA, 1999). To avoid unnecessary discussions of insignificant impacts, an action must first meet the following three criteria to be included in the cumulative analysis:

- affects a resource also potentially affected by the Project;
- causes this impact within all, or part of, the Project area defined by the resource-specific geographic scope; and
- causes this impact within all, or part of, the time span of the proposed Project's estimated impacts.

As described in our analysis above within section B of this EA, constructing and operating the Project would temporarily and permanently affect the environment. The Project would affect to some extent floodplains, geology, soils, vegetation, wildlife, some land uses, visual resources, air quality, and noise. However, throughout this EA, with the exception of operational air and noise impacts, we determined that the Project would have only minimal or temporary impacts on these resources. We also concluded that nearly all of the Project-related impacts would be contained within or adjacent to the temporary construction workspaces.

No NRHP-eligible cultural resources were identified in the areas affected by the Project; therefore, the Project would have no impact on cultural resources, and would therefore not contribute to cumulative impacts on these resources. In addition, the Project activities would not impact groundwater resources due to the relatively shallow depth of excavation and the depth to potable groundwater. Therefore, the Project would not contribute to cumulative impacts on groundwater resources. Also, we determined that the Project would not impact surface water or wetlands. Impacts on geology and soils are generally restricted to the construction workspaces and immediately adjacent areas. Erosion control measures included in North Baja's ECS and the FERC Plan would keep disturbed soils within the work areas. Since no other projects were identified that would be adjacent to or overlap the proposed Project (see table 12), cumulative impacts on geology or soils would not occur. Therefore, the resources mentioned in this paragraph are not considered further for purposes of evaluating cumulative impacts.

Table 11 below summarizes the resource-specific geographic boundaries that were considered in this analysis, and the justification for each. Actions outside of these boundaries are generally not evaluated because their potential to contribute to cumulative impacts diminishes with increasing distance from the Project.

Table 11 Cumulative Impact Resource-Specific Geographic Scopes potentially applicable to the Project	
Resource	**Cumulative Impact Geographic Scope**
Vegetation, Wildlife, and Special Status Species	The watershed level provides a natural boundary and a geographic proxy to accommodate general wildlife habitat and ecology characteristics in the Project area; therefore, impacts of other actions on vegetation, wildlife, and special status species are evaluated in combination with the Project within each defined hydrologic unit code watershed boundary (Town of Ehrenberg-Colorado River 150301040609.00 and Jackson Gulch, Imperial County 181002040106.00).
Land Use and Visual Resources	Impacts of other actions in combination with the Project are evaluated within a 1-mile radius from Project work areas.
Air Quality	Construction impacts include other actions within 0.25 mile from Project workspaces. We typically base operational impacts on a 50-kilometer radius from the emitting source (in this case, the proposed modified Ehrenberg Compressor Station).
Noise	Construction impacts include other actions within 0.25 mile from the proposed Project's earth-disturbing equipment work. Operation impacts include other actions that would contribute a noise impact on any NSA within a 1-mile radius of the modified Ehrenberg Compressor Station and El Paso Meter Station, and within 0.5 mile of the modified Ogilby Meter Station.

10.1 Other Actions identified within the Geographic Scope

Table 12 below summarizes recent past, current, and reasonably foreseeable actions and affected resources potentially falling within one or more geographic scopes identified in table 11.

North Baja obtained the information about present and future planned actions summarized in table 12 by consulting federal, state, and local agency and municipality websites.

In addition, we reviewed the La Paz County and Imperial County websites for projects in the vicinity of the proposed Project sites that could contribute to cumulative impacts; however, we did not identify any additional projects falling within the resource-specific geographic scopes summarized in table 11.

Based on the geographic scopes outlined in table 11, we identified actions in table 12 for consideration in our cumulative impact assessment.

Table 12 Present and Reasonably Foreseeable Actions Considered for Cumulative Impacts within the Geographic Scope of the Project					
Project/Sponsor (Status)	**Approx. Distance/ Direction from Project**	**Project Description**	**Expected Construction Timeframe**	**Required Permits**	**Potential Contribution to Cumulative Impacts**
Interstate 8 Improvement project	0.02 mile south of the Ogilby Meter Station	Construction of continuously reinforced concrete pavement along a 48-mile-long segment of I-8 from the intersection of California State Route 111 to the Arizona border	2019 through early 2020	Caltrans Right-of-Way Permit	Land Use, Visual resources, Construction-related air quality, noise
Interstate 10 Blythe Pavement Rehabilitation project	0.5 mile north of the Ehrenberg Compressor Station	Approximately 745 acres of improvements within the existing I-10 roadway	Present through winter 2022	CDFW 1602 Streambed Alteration Agreement CDFW 2081 Incidental Take Permit National Pollutant Discharge Elimination System Statewide Stormwater Permit California State Water Resources Control Board Section 401 Water Quality Certification USACE Clean Water Act Section 404 Nationwide Permit USFWS ESA Section 7 Consultation	Land Use, Visual resources, Construction related air quality, noise

10.2 Potential Cumulative Impacts of the Proposed Project

The actions considered in our cumulative impact analysis identified in section B.10.1 may vary from the proposed Project in nature, magnitude, and duration. These actions are included based on the likelihood of their impacts coinciding with the Project's impacts, which means that these other actions have current or ongoing impacts or are "reasonably foreseeable." The actions we considered are those that could affect similar

resources within the same geographic scope defined in table 10, and during the same timeframe as the Project. The anticipated cumulative impacts of the Project and these other actions are discussed below.

The I-8 Improvement project is expected to conclude prior to the Project's construction timeframe; however, construction delays are not uncommon for road improvement projects, so we will consider cumulative impacts in the event the I-8 project overlaps the construction timing of the proposed Project. The I-8 Improvement project is limited to the existing roadways, thus would not contribute to cumulative impacts on vegetation, wildlife, or operational-related air quality and noise. The I-10 Blythe Pavement Rehabilitation project is also limited to existing roadways and would occur mainly within the Palo Verde Valley Watershed (HUC-10), which is outside of the geographic scope for cumulative geology, soils, wildlife, vegetation, and construction-related air quality and noise impacts. Therefore, the potential for the proposed Project, combined with the two highway projects, to result in cumulative impacts is limited to the resource areas of land use, visual resources, and construction-related air quality and noise, as discussed below.[16]

Land Use and Visual Resources

The expansion of the Ehrenberg Compressor Station's footprint to accommodate the Project's new turbine at the station would result in the conversion of existing land uses to industrial/developed land. A majority of the area impacted by the expansion is classified as either disturbed land or is in agricultural use. Because the highway projects are limited to existing roadways (i.e., are not being widened), the area permanently impacted by the Ehrenberg Compressor Station expansion is disturbed land/agricultural, and the Ogilby Meter Station is not expanding beyond the existing fenceline, the Project is expected to result in a minor cumulative impact on land use.

The Project involves the modification of existing facilities, and as concluded in section B.5.3, these modifications would not substantially increase the visual impacts of those existing facilities. The highway projects are limited to existing roadways and will not contribute any permanent impacts on visual resources. However, some temporary cumulative visual impact could occur if the highway project construction, Ehrenberg Compressor Station/El Paso Meter Station construction (0.5 mile south of I-10), and Ogilby Meter Station construction (0.02 mile north of I-8) are simultaneously taking place. Therefore, we conclude that the Project would result in a minimal cumulative impact on visual resources within the geographic scope.

[16] We considered the ongoing presence and maintenance of I-8 and I-10 to be part of the environmental baseline for purposes of evaluating land use, emissions, and noise impacts in those resource sections of this EA. Cumulative impacts are focused on the specific improvement projects mentioned in table 12.

Air Quality

As discussed in section B.7.5, the operation of the proposed Project, chiefly from the modified Ehrenberg Compressor Station, would be a source of air emissions and minor amounts of fugitive emission releases from various valves and fittings, and periodic maintenance activities at the station; and these emissions would impact air quality. North Baja's AERMOD analysis for the proposed modified Ehrenberg Compressor Station finds that the Project's impacts on air quality would not exceed any applicable NAAQS. Therefore, we conclude that the regional cumulative air impacts from the modified Ehrenberg Compressor Station are entirely taken into account by the ambient background concentrations summarized in table 7 above. Operation of the modified Ehrenberg Compressor Station and construction emissions from the I-10 Blythe Pavement Rehabilitation project could result in some cumulative impact on air quality within the localized airspace in the vicinity of I-10 and the station; however, we expect this impact to be minor, would occur only during the timeframe that construction along I-10 takes place within the geographic scope, and cease following completion of that portion of the rehabilitation project.

Cumulative air impacts could also occur if I-8 Improvement project construction within the geographic scope occurs simultaneously with Project construction at the Ogilby Meter Station. This impact would be minor and cease following completion of either the I-8 Improvement project construction within the geographic scope, or Ogilby Meter Station construction (whichever comes first).

Therefore, the Project's cumulative impact on local and regional air quality would not be significant.

Noise

As demonstrated in section B.8, although operation of the modified Ehrenberg Compressor Station and El Paso Meter Station would result in elevated noise levels in the immediate vicinity of the station, the noise contribution of these stations is not likely to increase the existing noise levels at the nearest NSAs above perceptible levels. Operation of the modified stations would cumulatively add to ambient noise levels combined with construction-related noise from the I-10 Blythe Pavement Rehabilitation project; however, any cumulative noise impact would not affect nearby NSAs, would occur only during the timeframe that construction along I-10 takes place within the geographic scope, and cease following completion of that portion of the rehabilitation project.

If the I-8 Improvement project construction within the geographic scope occurs simultaneously with Project construction at the Ogilby Meter Station, this could result in cumulative noise impacts between and within the vicinity of both projects. This impact

would be minor and cease following completion of either the I-8 Improvement project or Ogilby Meter Station construction (whichever comes first).

We identified no other activities within the geographic scope that, when combined with noise from Project operation, would result in cumulative noise impacts. Therefore, operation of the Project facilities are expected to result in minimal cumulative impacts on noise levels at nearby NSAs.

Climate Change

We received comments from the California Public Utilities Commission and the People of the State of California expressing concern about the Project's contribution to global climate change. Climate change is the variation in climate (including temperature, precipitation, humidity, wind, and other meteorological variables) over time, whether due to natural variability, human activities, or a combination of both, and cannot be characterized by an individual event or anomalous weather pattern. For example, a severe drought or abnormally hot summer in a particular region is not a certain indication of climate change. However, a series of severe droughts or hot summers that statistically alter the trend in average precipitation or temperature over decades may indicate climate change. Recent research has begun to attribute certain extreme weather events to climate change (U.S. Global Change Research Program [USGCRP], 2018).

The leading U.S. scientific body on climate change is the USGCRP, composed of representatives from 13 federal departments and agencies.[17] The Global Change Research Act of 1990 requires the USGCRP to submit a report to the President and Congress no less than every four years that "1) integrates, evaluates, and interprets the findings of the USGCRP; 2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and 3) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years." These reports describe the state of the science relating to climate change and the effects of climate change on different regions of the United States and on various societal and environmental sectors, such as water resources, agriculture, energy use, and human health.

In 2017 and 2018, the USGCRP issued its *Climate Science Special Report: Fourth National Climate Assessment*, Volumes I and II (Fourth Assessment Report) (USGCRP, 2017; and USGCRP, 2018, respectively). The Fourth Assessment Report states that climate change has resulted in a wide range of impacts across every region of the country.

[17] The USGCRP member agencies are: Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of the Interior, Department of State, Department of Transportation, Environmental Protection Agency, National Aeronautics and Space Administration, National Science Foundation, Smithsonian Institution, and U.S. Agency for International Development.

Those impacts extend beyond atmospheric climate change alone and include changes to water resources, transportation, agriculture, ecosystems, and human health. The U.S. and the world are warming; global sea level is rising and acidifying; and certain weather events are becoming more frequent and more severe. These changes are driven by accumulation of GHG in the atmosphere through combustion of fossil fuels (coal, petroleum, and natural gas), combined with agriculture, clearing of forests, and other natural sources. These impacts have accelerated throughout the end of the 20th and into the 21st century (USGCRP 2018).

GHGs were identified by the EPA as pollutants in the context of climate change. GHG emission do not cause local impacts, it is the combined concentration in the atmosphere that causes global climate and these are fundamentally global impacts that feedback to localized climate change impacts. Thus, the geographic scope for cumulative analysis of GHG emissions is global rather than local or regional. For example, a project 1 mile away emitting 1 ton of GHGs would contribute to climate change in a similar manner as a project 2,000 miles distant also emitting 1 ton of GHGs.

Climate change is a global phenomenon; however, for this analysis, we will focus on the existing and potential cumulative climate change impacts in the Project area. The USGCRP's Fourth Assessment Report notes the following observations of environmental impacts are attributed to climate change in the Southwest region (USGCRP, 2017; USGCRP, 2018):

- The average annual temperature of the Southwest increased 1.6°F (0.9ºC) between 1901 and 2016 and the region recorded more warm nights and fewer cold nights between 1990 and 2016, including an increase of 4.1°F (2.3°C) for the coldest day of the year;
- water for people and nature in the Southwest has declined during droughts, due in part to human-caused climate change;
- many coastal resources in the Southwest have been affected by sea level rise, ocean warming, and reduced ocean oxygen—all impacts of human-caused climate change—and ocean acidification resulting from human emissions of carbon dioxide. Homes and other coastal infrastructure, marine flora and fauna, and people who depend on coastal resources face increased risks under continued climate change;
- analyses estimate that the area burned by wildfire across the western United States from 1984 to 2015 was twice what would have burned had climate change not occurred; and
- heat-associated deaths and illnesses, vulnerabilities to chronic disease, and other health risks to people in the Southwest continue to result from increases in extreme heat, poor air quality, and conditions that foster pathogen growth and spread.

The USGCRP's Fourth Assessment Report notes the following projections of climate change impacts in the Project region (Southwest United States) with a high or very high level of confidence[18] (USGCRP, 2018):

- climate models project an 8.6 °F (4.8 °C) increase in Southwest regional annual average temperature by 2100 which would contribute to aridification (a potentially permanent change to a drier environment) in much of the Southwest and a shift in plant hardiness zones;
- an increase in the frequency of heavy downpours, more frequent and severe droughts, and more wildfire across the Southwest region;
- models project annual declines of river flow in southern basins (the Rio Grande and the lower Colorado River) and either no change or modest increases in northern basins (northern California and the upper Colorado River);
- models project substantial reductions in snowpack, less snow and more rain, shorter snowfall seasons, earlier runoff, and warmer late-season stream temperatures;
- increased drought, heat waves, and reduction of winter chill hours are likely to harm crops and livestock; and
- the reduction of water volume in both Lake Powell and Lake Mead would increase the risk of water shortages across much of the Southwest.

It should be noted that while the impacts described above taken individually may be manageable for certain communities, the impacts of compound extreme events (such as simultaneous heat and drought, wildfires associated with hot and dry conditions, or flooding associated with high precipitation on top of saturated soils) can be greater than the sum of the parts (USGCRP, 2018).

The GHG emissions associated with construction and operation of the Project were identified and quantified in section B.7 of the EA. Construction and operation of the Project would increase the atmospheric concentration of GHGs in combination with past, current, and future emissions from all other sources globally and contribute incrementally to future climate change impacts.

Currently, there is no universally accepted methodology to attribute discrete, quantifiable, physical effects on the environment to the Project's incremental contribution to GHGs. We have looked at atmospheric modeling used by the EPA, National Aeronautics and Space Administration, the Intergovernmental Panel on Climate Change,

[18] The report authors assessed current scientific understanding of climate change based on available scientific literature. Each "Key Finding" listed in the report is accompanied by a confidence statement indicating the consistency of evidence or the consistency of model projections. A high level of confidence results from "moderate evidence (several sources, some consistency, methods vary and/or documentation limited, etc.), medium consensus." A *very* high level of confidence results from "strong evidence (established theory, multiple sources, consistent results, well documented and accepted methods, etc.), high consensus." https://science2017.globalchange.gov/chapter/front-matter-guide/

and others, and we found that these models are not reasonable for project-level analysis for a number of reasons. For example, these global models are not suited to determine the incremental impact of individual projects, due to both scale and overwhelming complexity. We also reviewed simpler models and mathematical techniques to determine global physical effects caused by GHG emissions, such as increases in global atmospheric CO_2 concentrations, atmospheric forcing, or ocean CO_2 absorption. We could not identify a reliable, less complex model for this task and we are not aware of a tool to meaningfully attribute specific increases in global CO_2 concentrations, heat forcing, or similar global impacts to project-specific GHG emissions. Similarly, it is not currently possible to determine localized or regional impacts from GHG emissions from the Project.

Absent such a method for relating GHG emissions to specific resource impacts, we are not able to assess potential GHG-related impacts attributable to this project. Without the ability to determine discrete resource impacts, we are unable to determine the significance of the project's contribution to climate change.

Additionally, we have not been able to find any GHG emission reduction goals established at the federal level.[19] However, the State of Arizona, within which all of the Project's operational emissions would occur, enacted targets in 2006 for reducing emissions to 2000 levels by 2020 and 50 percent below 2000 levels by 2040.[20] As described in section A.2, the gas transported by the Project would be delivered to the U.S./Mexico border for the purpose of supplying feed gas for Sempra LNG and IEnova's Energia Costa Azul LNG terminal in Mexico; therefore, the downstream GHG emissions resulting from the use of this gas would not occur within the State of Arizona or elsewhere within the United States. As indicated in table 7 within section B.7.5 above, direct GHG emissions from the operation of the Project, and primarily from operation of the new turbine on a potential (8,760 hours per year) basis at the Ehrenberg Compressor Station, would result in annual CO_2e emissions of about 142,393 tons (129,448 metric tons),[21] which would represent 0.15 percent and 0.30 percent of Arizona's 2020 and 2040 GHG goals, respectively.[22]

[19] The national emissions reduction targets expressed in the EPA's Clean Power Plan were repealed, Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emissions Guidelines Implementing Regulations, 84 Fed. Reg. 32,250, 32,522-32, 532 (July 8, 2019). In November 2019, formal notification was sent to the United Nations of the U.S.'s withdrawal from the Paris climate accord.
[20] We reviewed the U.S. State Greenhouse Emission Targets site for individual state requirements at: https://www.c2es.org/document/greenhouse-gas-emissions-targets/
[21] A metric ton is approximately equal to 1.1 ton.
[22] Based on data found at: https://www.eia.gov/environment/emissions/state/.

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 and system alternatives. Since the Project involves the modification to existing facilities, and does not propose the construction of facilities in new locations; and because we did not receive any comments recommending alternate sites, nor did we identify any significant resource impacts from the proposed siting, we did not evaluate site alternatives for the Project.

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.

We reviewed alternatives against the evaluation criteria in the sequence presented above. The first consideration for including an alternative in our analysis is whether or not it could satisfy the stated purpose of the Project. An alternative that cannot achieve the purpose for the Project cannot be considered as an acceptable replacement for the Project. The second evaluation criteria is feasibility and practicality. Many alternatives are technically and economically feasible. Technically practical alternatives, with exceptions, would generally require the use of common construction methods. An alternative that would require the use of a new, unique, or experimental construction method may not be technically practical because the required technology is not available or is unproven. Economically practical alternatives would result in an action that generally maintains the price competitive nature of the proposed action. Generally, we do not consider the cost of an alternative as a critical factor unless the added cost to design, permit, and construct the alternative would render the project economically impractical.

Alternatives that would not meet the Project's objective or were not feasible were not brought forward to the next level of review (i.e., the third evaluation criterion). Determining if an alternative provides a significant environmental advantage requires a comparison of the impacts on each resource as well as an analysis of impacts on resources that are not common to the alternatives being considered. The determination

must then balance the overall impacts and all other relevant considerations. In comparing the impact between resources, we also considered the degree of impact anticipated on each resource. Ultimately, an alternative that results in equal or minor advantages in terms of environmental impact would not compel us to shift the impacts to another location, potentially affecting a new set of landowners.

1. No-Action Alternative

Under the no-action alternative, North Baja would not modify the existing Ehrenberg Compressor Station and the El Paso and Ogilby Meter Stations, and none of the impacts associated with the Project would occur. However, the Project objectives would not be met. North Baja would not be able to meet the Project's stated need in section A.2, including providing an incremental increase of 495,000 dekatherms per day of natural gas to the U.S./Mexico border.

Although a Commission decision to deny the proposed action would avoid the environmental impacts addressed in this EA, other projects could be constructed to supply the natural gas offered by North Baja. Such alternative projects could require the construction of additional and/or new facilities in the same or other locations to meet the Project objectives. These alternatives would result in their own set of specific environmental impacts that could be greater or equal to those associated with the current proposal, and would transfer impacts from one location to another. Therefore, we have dismissed this alternative as a reasonable alternative to meet the Project objectives. For these reasons we are not recommending the no-action alternative.

2. System Alternatives

System alternatives are alternatives to the proposed action that would make use of North Baja's (or other companies') existing, modified, or proposed pipeline systems to meet the stated objective of the Project. System alternatives could make it unnecessary to construct all or part of the Project, such as constructing a loop line. According to North Baja, the construction of approximately 75 miles of 36-inch-diameter looping pipeline along the existing North Baja mainline could substitute for the need for the proposed Project. This construction could require as much as 10,000 acres of disturbance and affect many more landowners than the Project. In comparison, the Project would temporarily impact a total of 22.67 acres, of which 8.52 acres would be permanently occupied by the Ehrenberg Compressor Station and El Paso Meter Station expansion areas. Therefore, although the looping alternative would avoid the operational emissions associated with the proposed new compression at the Ehrenberg Compressor Station, the Project would result in far less ground disturbance on undeveloped lands than a looping alternative such as the example described above.

Lastly, we have not identified any existing natural gas transmission systems in the vicinity of the custody transfer point of North Baja's pipeline system on the U.S./Mexico border that could provide the additional incremental capacity that the Project proposes.

Therefore, we identified no system alternatives that are technically feasible and would meet the Project objectives.

3. Conclusion

We reviewed alternatives to North Baja's proposal. No system alternatives were identified that would meet our evaluation criteria for recommendation. No aboveground facility alternatives were reviewed because all Project facilities would be constructed within and adjacent to North Baja's existing facilities. Therefore, we conclude that the proposed Project is the preferred alternative to meet the Project's objectives.

D. CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis in this EA, we have determined that if North Baja 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 North Baja.

1. North Baja 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. North Baja 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**, North Baja 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 alignment sheets. **As soon as they are available, and before the start of construction**, North Baja 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.

   North Baja's exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. North Baja's right of eminent domain granted under NGA 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. North Baja 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 workspace allowed by the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements which 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 resources 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. **At least 60 days before construction begins**, North Baja shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP, or the Director's designee. North Baja must file revisions to the plan as schedules change. The plan shall identify:

   a. how North Baja 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 North Baja 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 per spread, 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 North Baja 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 North Baja's organization having responsibility for compliance;
   g. the procedures (including use of contract penalties) North Baja will follow if noncompliance occurs; and
   h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:

      (1) the completion of all required surveys and reports;
      (2) the environmental compliance training of onsite personnel;
      (3) the start of construction; and
      (4) the start and completion of restoration.

7. North Baja shall employ at least one EI for the Ehrenberg Compressor Station and El Paso Meter Station, and at least one EI for the Ogilby Meter Station. The EIs 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, North Baja 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 North Baja'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 North Baja from other federal, state, or local permitting agencies concerning instances of noncompliance, and North Baja's response.

9. North Baja 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, North Baja must file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. North Baja 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**, North Baja 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 North Baja 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. North Baja shall file with the Secretary a noise survey for the combined operation of the modified Ehrenberg Compressor Station and El Paso Meter Station **no later than 60 days** after placing both modified stations into service. If a full power load condition noise survey is not possible, North Baja shall file an interim survey at the maximum possible power load **within 60 days** of placing both stations into service and file the full power load survey **within 6 months**. If the noise attributable to operation of all equipment at both stations under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, North Baja 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.

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Appendix A

Birds of Conservation Concern with Potential to Occur in the General Vicinity of the Project Areas

Table A-1 Birds of Conservation Concern with Potential to Occur in the General Vicinity of the Project Areas					
Common Name	**Scientific Name**	**Season Present**	**Habitat and Life History**	**Occurrence Potential in the Proposed Project Area**	
				Ehrenberg Compressor Station	**El Paso Meter Station**
Black skimmer	*Rynchops niger*	Breeding	Black skimmer inhabits coastal areas, usually in proximity to sandy beaches and islands. This species has also been observed at the Salton Sea and the mouth of the Colorado River in Baja California, Mexico. This species nests in open sandy areas, gravel or shell bars with sparse vegetation, or broad mats of dead vegetation in saltmarshes. Foraging birds frequent places that concentrate prey: tidal waters of bays, estuaries, lagoons, creeks, rivers, ditches, and saltmarsh pools.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Costa's hummingbird	*Calypte costae*	Year-round	Costa's hummingbird occurs in desert scrub, coastal California chaparral and sage scrub, and deciduous forest and desert scrub in Baja California. In the Sonoran Desert (where the proposed Project is located), they occur in desert washes with palo verde (*Parkinsonia* spp.), jojoba (*Simmondsia chinensis*), desert lavender (*Condea emoryi*), or chuparosa (*Justicia californica*); on steep rock slopes; and in lowlands with saguaro (*Carnegiea gigantea*), creosote bush, and cholla cacti (*Cylindropuntia* spp.) – all typically below 3,000 feet elevation.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Gila woodpecker	*Melanerpes uropygialis*	Year-round	Gila woodpecker is a desert species occurring mainly in desert riparian and desert wash habitats, but also in some orchard-vineyard and urban areas. This species requires suitable sites for nesting cavities, including mature cottonwood trees (*Populus* sp.), large mesquites (*Prosopis* spp.) or willows (*Salix* spp.), California fan palms (*Washingtonia filifera*), saguaro, and large snags.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Gilded flicker	*Colaptes chrysoides*	Year-round	Gilded flicker is strongly associated with the saguaro cactus forests of southwestern deserts. It also occurs in Joshua tree (*Yucca brevifolia*) and riparian groves of cottonwood and willows in warm desert lowlands and foothills. Nesting density is positively correlated with the volume of ironwood (*Olneya tesota*) in southern Arizona.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**

Table A-1 Birds of Conservation Concern with Potential to Occur in the General Vicinity of the Project Areas					
Common Name	**Scientific Name**	**Season Present**	**Habitat and Life History**	**Occurrence Potential in the Proposed Project Area**	
				Ehrenberg Compressor Station	**El Paso Meter Station**
Lawrence's goldfinch	*Carduelis lawrencei*	Breeding	Lawrence's goldfinch nests and forages in dry, open oak woodlands with chaparral, weedy fields, coastal scrub, and nearby freshwater. This species mainly feeds in weedy fields; after breeding, they make erratic movements into habitats similar to breeding habitats, including desert arroyos, river floodplains, mesquite, weedy fields, roadsides, cultivated fields, orchards, gardens, and parks.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Long-billed curlew	*Numenius americanus*	Migration	Long-billed curlew spends summers in the areas of western North America with sparse, short grasses, including shortgrass, mixed-grass prairies and agricultural fields. During migration to their wintering grounds along the coast and Mexico, they use shortgrass prairies, alkali lakes, beaches, wet pastures, mudflats, and agricultural fields.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Marbled godwit	*Limosa fedoa*	Migration	Marbled godwit breeding habitat consists of shortgrass prairies near wetlands. They avoid areas with taller vegetation and occur more often in native grass prairies with green needle grass (*Nassella viridula*), western wheatgrass (*Elymus smithii*), blue grama (*Bouteloua gracilis*), needle-and-thread (*Stipa comata*), and little blue stem (*Schizachyrium scoparium*). In the winter, marbled godwits forage and rest along coastal mudflats, estuaries, and sandy beaches.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Rufous hummingbird	*Selasphorus rufus*	Migration	Rufous hummingbird typically breeds in open or shrubby areas, forest openings, yards, and parks, and occasionally in forests, thickets, swamps, and meadows from sea level to 6,000 feet amsl. When migrating, this species can be found in mountain meadows up to 12,600 feet amsl. In Mexico, wintering rufous hummingbirds live in oak woodlands at 7,500 to 10,000 feet amsl, consisting of shrubby areas, and thorn forests.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**

Table A-1 Birds of Conservation Concern with Potential to Occur in the General Vicinity of the Project Areas					
Common Name	**Scientific Name**	**Season Present**	**Habitat and Life History**	**Occurrence Potential in the Proposed Project Area**	
				Ehrenberg Compressor Station	**El Paso Meter Station**
Western burrowing owl	*Athene cunicularia*	Year-round	Western burrowing owl is found in dry, open habitats where it occupies underground burrows, typically those of the California ground squirrel (*Otospermophilus beecheyi*). It can also occur in open areas of farmland, levee banks, and other disturbed or managed habitats where burrows or burrow-like refuges are present.	Suitable breeding and foraging habitat for this species exists at the Ehrenberg Compressor Station, and this species has been observed within 1 mile of the proposed Project. However, no western burrowing owls or owl sign (e.g., burrows, scat, or pellets) were observed during reconnaissance-level surveys. **Moderate potential to occur**	Suitable breeding and foraging habitat for this species exists at the El Paso Meter Station, and this species has been observed within 1 mile of the proposed Project. However, no western burrowing owls or owl sign (e.g., burrows, scat, or pellets) were observed during reconnaissance-level surveys. **Moderate potential to occur**
Whimbrel	*Numenius phaeopus*	Migration	Whimbrel is a ground-foraging species that mainly feeds on aquatic invertebrates. It can occur on tidal mudflats and sandflats; they also forage in saltmarshes, lagoons, estuaries, and on reefs and rocky shorelines. This species roosts in flocks in marshes, meadows, fields, dunes, and oyster beds, as well as on small islands and mangrove (*Rhizophora* spp.) trees. Migrating whimbrels use these habitats along with coastal tundra and heath.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**
Willet	*Tringa semipalmata*	Migration	Willet occurs in open beaches, bayshores, marshes, mudflats, and rocky coastal zones. Willets can occur far inland, where they nest near marshes and other wetlands, prairie pothole ponds, and wet fields.	No suitable habitat for this species is present at the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present at the El Paso Meter Station. **No potential to occur**

Appendix B

Special-Status Wildlife and Plant Species with the Potential to Occur in the Proposed Project Areas

Table B-1 Special Status Wildlife Species with the Potential to Occur in the General Vicinity of Project Areas						
Species	**Listing Status[a]**	**Habitat and Life History**	**Known Locations**	**Occurrence Potential at Project Sites**		
				Ehrenberg Compressor Station	**El Paso Meter Station**	**Ogilby Meter Station**
Reptiles						
Desert tortoise (*Gopherus agassizii*)	FT CT BLM S2S3 DRECP	Desert tortoise inhabits a variety of habitats, including sandy flats, rocky foothills, alluvial fans, washes, and canyons with sandy or gravelly soils. Soils must be loose for den construction, but firm enough that dens do not collapse. Desert tortoise occurs at elevations ranging from below sea level to 7,300 feet amsl, but its most optimal habitat exists between 1,000 and 3,000 feet amsl.	Desert tortoise has one recently documented California Natural Diversity Database (CNDDB) occurrence record within 5 miles of the proposed Project at the junction of I-8 and Sidewinder Road, approximately 1.5 miles northeast of Pilot Knob Mesa in California.	No suitable habitat is present within the survey areas and no recent[b] occurrences of this species are documented near the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the El Paso Meter Station. **No potential to occur**	Suitable foraging and resting habitat for this species exists within the survey areas for the Ogilby Meter Station. However, no live desert tortoise or desert tortoise sign (e.g., burrows or scat) were observed during presence/absence field surveys. **Moderate potential to occur**
Flat-tailed horned lizard (*Phrynosoma mcallii*)	BLM SSC DRECP S2	Flat-tailed horned lizard is found throughout central Riverside, eastern San Diego, and Imperial counties. This species is most likely to occur in areas of creosote bush and scrub habitats, and is found throughout desert scrub, wash, succulent shrub, and alkali scrub habitats. Fine sand is a critical habitat element for this species, as it burrows into the sand to avoid predators and extreme temperatures.	Flat-tailed horned lizard has several recent CNDDB occurrence records within 0.25, 1, and 5 miles of the proposed Project. The closest occurrence of this species was documented at the junction of I-8 and Ogilby Road in California.	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the El Paso Meter Station. **No potential to occur**	The Ogilby Meter Station is within the known range of the flat-tailed horned lizard. Suitable habitat for this species exists within the survey areas for the Ogilby Meter Station. However, no flat-tailed horned lizards were observed during reconnaissance-level surveys. **High potential to occur**
Northern Mexican gartersnake (*Thamnophis eques megalops*)	FT	Northern Mexican gartersnake is found in Arizona and New Mexico. This species is considered a riparian obligate and occurs in source-area wetlands, large river riparian woodland forests, and streamside gallery forests.	No suitable habitat for Northern Mexican gartersnake is present within the survey area. No recent CNDDB occurrences for this species are documented within 5 miles of the proposed Project. This species was included for analysis due to its inclusion on the IPaC species list.	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Fish						
Razorback sucker (*Xyrauchen texanus*)	FE BLM CE S1S2	Razorback sucker inhabits a wide variety of habitats, from mainstream channels to the backwaters of medium and large streams or rivers, preferring to live in areas with sand, mud, or gravel bottoms.	No suitable habitat for razorback sucker is present within the survey area. No recent CNDDB occurrences for this species are documented near the proposed Project. This species was included for analysis due to its inclusion on the HabiMap Arizona species list.	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat is present within the survey areas and no recent occurrences of this species are documented near the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**

Table B-1 Special Status Wildlife Species with the Potential to Occur in the General Vicinity of Project Areas						
Species	**Listing Status[a]**	**Habitat and Life History**	**Known Locations**	**Occurrence Potential at Project Sites**		
				Ehrenberg Compressor Station	**El Paso Meter Station**	**Ogilby Meter Station**
Birds						
Western burrowing owl (*Athene cunicularia*)	BLM SSC DRECP	Western burrowing owl is found in dry, open habitats where it occupies underground burrows, typically those of the California ground squirrel (*Otospermophilus beecheyi*). It can also occur in open areas of farmland, levee banks, and other disturbed or managed habitats where burrows or burrow-like refuges are present. The species breeds from February 1 through August 30. Western burrowing owl is generally found at elevations from 200 to 5,000 feet amsl.	Western burrowing owl has numerous recent CNDDB occurrence records within 1 mile of the proposed Project near the City of Blythe, California and within 5 miles of the proposed Project near Pilot Knob Mesa in California.	Suitable breeding and foraging habitat for this species exists within the survey areas at the Ehrenberg Compressor Station, and this species has been observed within 1 mile of the proposed Project. However, no western burrowing owls or owl sign (e.g., burrows, scat, or pellets) were observed during reconnaissance-level surveys. **Moderate potential to occur**	Suitable breeding and foraging habitat for this species exists within the survey areas at the El Paso Meter Station, and this species has been observed within 1 mile of the proposed Project. However, no western burrowing owls or owl sign (e.g., burrows, scat, or pellets) were observed during reconnaissance-level surveys. **Moderate potential to occur**	The Ogilby Meter Station is within the known range of the western burrowing owl. Suitable breeding and foraging habitat for this species exists within the September 2019 survey area for the Ogilby Meter Station. An old burrow complex and a weathered owl pellet were observed in this area. **High potential to occur**
Elf owl (*Micrathene whitneyi*)	CE S1	Elf owls inhabit lowland habitats, which provide cover and nesting cavities in saguaros (*Carnegiea gigantea*), sycamores (*Platanus occidentalis*), and oaks (*Quercus* sp.) in wooded canyons and deserts. This species is found in the dry uplands of the Sonoran desert at up to 7,000 feet amsl. The species is dependent on desert woodpecker (*Melanerpes uropygialis*) holes in cacti or trees for nesting sites.	Elf owl has several recent CNDDB occurrence records documented within 1 mile of the proposed Project in Arizona, near Goose Flats along the Colorado River.	The proposed Project area is within the breeding range of elf owl. However, no suitable breeding habitat for this species is present. Foraging habitat is present in the survey areas at Ehrenberg Compressor Station. Several recent occurrence records were documented within 1 mile of the proposed Project near Goose Flats along the Colorado River. **Low potential to occur**	The proposed Project area is within the breeding range of elf owl. However, no suitable breeding habitat for this species is present. Foraging habitat is present in the survey areas at El Paso Meter Station. Several recent occurrence records were documented within 1 mile of the proposed Project near Goose Flats along the Colorado River. **Low potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Gila woodpecker (*Melanerpes uropygialis*)	BLM CE DRECP S1	Gila woodpecker is a desert species, occurring mainly in desert riparian and desert wash habitats, but also in some orchard-vineyard and urban areas. This species requires suitable sites for nesting cavities, including mature cottonwood trees (*Populus* sp.), large mesquites (*Prosopis* sp.) or willows (*Salix* sp.), California fan palms (*Washingtonia filifera*), giant cacti (*Carnegiea gigantean*), and large snags.	Gila woodpecker has several recent CNDDB occurrence records documented within 5 miles of the proposed Project in Arizona, along the Colorado River.	The Ehrenberg Compressor Station is within the breeding range of Gila woodpecker. However, no suitable breeding habitat for this species is present in the survey areas. Foraging habitat is present in the survey areas. Several recent occurrence records are documented within 5 miles of the proposed Project area along the Colorado River. **Low potential to occur**	The El Paso Meter Station is within the breeding range of Gila woodpecker. However, no suitable breeding habitat for this species is present in the survey areas. Foraging habitat is present in the survey areas. Several recent occurrence records are documented within 5 miles of the proposed Project area along the Colorado River. **Low potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**

Table B-1 Special Status Wildlife Species with the Potential to Occur in the General Vicinity of Project Areas						
Species	**Listing Status[a]**	**Habitat and Life History**	**Known Locations**	**Occurrence Potential at Project Sites**		
				Ehrenberg Compressor Station	**El Paso Meter Station**	**Ogilby Meter Station**
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE BLM CE DRECP	Southwestern willow flycatcher winters in Mexico, Central America, and northern South America. It usually breeds in patchy to dense riparian habitats along streams or other wetlands, near or adjacent to surface water or in areas underlain by saturated soil. Breeding sites for this species usually consist of dense vegetation with small openings, open water, or shorter/sparser vegetation. This species is found at elevations from sea level to over 8,500 feet amsl. This species breeds from mid-May to late August.	Southwestern willow flycatcher has one recent CNDDB occurrence record documented within 1 mile of the proposed Project in Arizona.	No suitable foraging or breeding habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable foraging or breeding habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	BLM FT CE DRECP S1	The western subspecies of the yellow-billed cuckoo has disappeared over much of the western U.S. and now occurs as a rare breeder in California, Arizona, New Mexico, and west Texas. It prefers riparian forests in flood bottoms of larger river systems for nesting. Nests are often placed in willows along streams and rivers, with nearby cottonwood trees serving as foraging sites. This species requires multi-story habitat for foraging.	Western yellow-billed cuckoo has several recent CNDDB occurrence records within 0.25, 1, and 5 miles of the proposed Project in Arizona. The closest occurrence of this species was documented approximately 0.25 mile from the proposed Project along the Colorado River. This species was included for analysis due to its inclusion in the IPaC species list.	No suitable foraging or breeding habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable foraging or breeding habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Yuma Ridgway's rail (*Rallus obsoletus yumanensis*)	FE BLM CT FP DRECP S1S2	Yuma Ridgway's rail inhabits freshwater and brackish marshes. This species breeds from mid-March to July and requires mature stands of cattail (*Typha* sp.) and bulrush (*Scirpus* sp.) for foraging and nesting. This species has been documented in the Lower Colorado River from the southern Mexico boundary to the upper end of Lake Mead.	Yuma Ridgway's rail has several recent CNDDB occurrence records documented within 0.25, 1, and 5 miles of the proposed Project in Arizona. The closest occurrence of this species was documented approximately 0.25 mile from the proposed Project along the Colorado River just south of the Ehrenberg bridge. This species was included for analysis due to its inclusion in the IPaC species list.	No suitable foraging or breeding habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable foraging or breeding habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Mammals						
Cave myotis (*Myotis velifer*)	BLM S1	Cave myotis is a colonial cave dweller, occurring in colonies of several thousand individuals in most of its range. This species may also use mines and buildings to roost. Cave myotis is restricted in California to the lowlands of the Colorado River and the adjacent mountain ranges.	One recent CNDDB occurrence for cave myotis is documented within 1 mile of the proposed Project along the Colorado River, near the Ehrenberg bridge. No suitable habitat for this species is present within the survey area.	Foraging habitat is present within the survey areas for the Ehrenberg Compressor Station. However, no suitable breeding habitat for this species is present. **Low potential to occur**	Foraging habitat is present within the survey areas for the El Paso Meter Station. However, no suitable breeding habitat for this species is present. **Low potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**

Table B-1
Special Status Wildlife Species with the Potential to Occur in the General Vicinity of Project Areas

Species	Listing Status[a]	Habitat and Life History	Known Locations	Occurrence Potential at Project Sites		
				Ehrenberg Compressor Station	El Paso Meter Station	Ogilby Meter Station
Colorado River cotton rat (*Sigmodon arizonae plenus*)	S1S2	The Colorado River cotton rat inhabits dense, grassy banks of rivers, streams, and other sources of freshwater in semi-desert, open grassland, or swampy habitats. This species is found in southern and central Arizona, New Mexico, and Mexico.	No suitable habitat for the Colorado River cotton rat is present within the survey area. No recent CNDDB occurrences for this species are documented near the proposed Project. This species was included for analysis due to its inclusion on the HabiMap Arizona species list.	No suitable habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	S3	Pocketed free-tailed bat inhabits pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert washes, alkali desert scrub, Joshua tree, and palm oasis habitats. It roosts in rock crevices, caverns, roof tiles, and buildings. Its breeding period is from early July to August.	No suitable habitat for pocketed free-tailed bat is present within the survey area. One recent CNDDB occurrence for this species is documented within 1 mile of the proposed Project along the Colorado River, near the Ehrenberg bridge.	No suitable habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Sonoran pronghorn (*Antilocapra americana sonoriensis*)	FE BLM	Sonoran pronghorn inhabits broad alluvial valleys separated by granite mountains and mesas. This species migrates across vast expanses of the Sonoran Desert in Arizona, California, and Mexico. Sonoran pronghorn's mating season is between September and October.	No suitable habitat for Sonoran pronghorn is present within the survey area. No recent CNDDB occurrences for this species are documented near the proposed Project. This species was included for analysis due to its inclusion on the IPaC species list.	No suitable habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	No suitable habitat is present within the Ogilby Meter Station survey areas. No recent occurrences for this species are documented near the Ogilby Meter Station. **No potential to occur**
Western mastiff bat (*Eumops perotis californicus*)	SSC BLM S3S4	Western mastiff bat occupies many open, semi-arid to arid habitats at elevations ranging from 100 to 4,000 feet amsl. This species primarily roosts in crevices in vertical cliffs. Foraging habitats include broad, open areas in chaparral, coastal scrub, grasslands, floodplains, oak woodland, Ponderosa pine forest, dry desert wash, meadows, and agricultural areas. Western mastiff bat nursery roosts can be found in tight rock crevices. Breeding likely occurs from April through September.	One historic CNDDB occurrence of western mastiff bat is recorded within 5 miles of the proposed Project, near the Cargo Mine in the Cargo Muchacho Mountains in California.	No suitable habitat for this species is present within the survey areas for the Ehrenberg Compressor Station. **No potential to occur**	No suitable habitat for this species is present within the survey areas for the El Paso Meter Station. **No potential to occur**	Foraging habitat is present. However, no suitable roosting habitat for this species is present within the survey area. One recent CNDDB occurrence for western mastiff bat is documented within 5 miles of the Ogilby Meter Station. **Low potential to occur**

[a] Explanation of federal and state listing codes:

Federal listing codes:
-FE: Federally endangered species
-FT: Federally threatened species
-BLM: BLM sensitive species
-DRECP: Desert Renewable Energy Conservation Plan-covered species

California listing codes:
-CE: State-listed as endangered
-CT: State-listed as threatened
-FP: Fully protected species
-SSC: Species of special concern

Arizona listing codes:
-S1: Critically imperiled
-S2: Imperiled
-S3: Vulnerable
-S4: Apparently secure

[b] A recent occurrence record is one that has been recorded within the last 30 years.

Notes:
amsl = Above Mean Sea Level
CNDDB = California Natural Diversity Database

Table B-2
Special-Status Plant Species with the Potential to Occur at the Ogilby Meter Station

Common Name	Scientific Name	Listing Status[a]	Habitat Preferences, Distribution Information, and Additional Notes	Flowering Phenology	Life Form	Potential to Occur
Algodones Dunes sunflower	*Helianthus niveus* ssp. *tephrodes*	BLM 1B.2	This species occurs in Sonoran Desert scrub in Imperial County, California, and in desert sand dunes at elevations of 160 to 330 feet amsl.	March to May and October to January	Annual or perennial herb, subshrub	Suitable habitat for the Algodones Dunes sunflower is present within the survey area, and one documented occurrence of this species has been observed along the Algodones Dunes and the Southern Pacific Railroad tracks within 1 mile of the proposed Project. No evidence of this species was found within the survey area during 2019 and 2020 focused special-status plant surveys. **None present**
Giant Spanish-needle	*Palafoxia arida* var. *gigantea*	1B.3	This species occurs in Sonoran Desert scrub in Imperial County, California, and in desert sand dunes at elevations of 50 to 330 feet amsl.	March to May	Annual or perennial herb	Suitable habitat for giant Spanish-needle is present within the survey area, and one occurrence of the species has been observed in the Algodones Dunes within 0.25 mile of the proposed Project. In addition, this species occurs within 5 miles of the proposed Project in the Algodones Dunes, Imperial Dunes Recreation Area, and outside of the community of Winterhaven, California. No evidence of this species was found within the survey area during 2019 and 2020 focused special-status plant surveys. **None present**
Harwood's milk-vetch	*Astragalus insularis* var. *harwoodii*	2B.2	This species occurs in Mojave Desert scrub and Sonoran Desert scrub in sandy or gravelly substrates and in desert sand dunes at elevations up to 2,330 feet amsl.	January to May	Annual or perennial herb	Suitable habitat for Harwood's milk-vetch is present within the survey area, and one occurrence of the species has been observed near the intersection of I-8 and Ogilby Road within 1 mile of the proposed Project. In addition, Harwood's milk-vetch has been observed on Pilot Knob Mesa and near the City of Blythe, California within 5 miles of the proposed Project. This species was observed throughout the site, including 6 individuals/clusters within or adjacent to the access road, and 23 individuals/clusters within the temporary workspace, during March 2020 botanical surveys; 2019 surveys were not completed during its blooming period. **Occurs onsite**
Peirson's milk-vetch	*Astragalus magdalenae* var. *peirsonii*	FT, SE, BLM 1B.2	This species occurs in Sonoran Desert scrub in Imperial County, California, in desert sand dunes at elevations of 200 to 740 feet amsl.	December to April	Annual or perennial herb	Suitable habitat for Peirson's milk-vetch is present within the survey area. Several occurrences of this species have been found within 5 miles of the proposed Project in the Algodones Dunes. No evidence of this species was found within the survey area during 2019 and 2020 focused special-status plant surveys. **None present**
Pink fairy-duster	*Calliandra eriophylla*	2B.3	This species occurs in Sonoran Desert scrub in sandy or rocky sites on washes, slopes, and mesas at elevations of 390 to 4,930 feet amsl.	January to March	Perennial deciduous shrub	Pink fairy-duster has been observed within 5 miles of the proposed Project on Pilot Knob Mesa, in the Cargo Muchacho Mountains, and just outside of the community of Ogilby in California. However, the proposed Project is just outside of this species' geographic and elevation ranges. No evidence of this species was found within the survey area during 2019 and 2020 focused special-status plant surveys. **None present**
Sand food	*Pholisma sonorae*	BLM 1B.2	This species occurs in Sonoran Desert scrub in Imperial County, California, and in desert sand dunes at elevations up to 660 feet amsl.	March to June	Perennial herb (parasitic)	Suitable habitat for sand food is present within the survey area, and several occurrences of this species have been observed within 5 miles of the proposed Project in the Algodones Dunes and near Tumco Hedges Mine outside of the community of Ogilby, California. No evidence of this species was found within the survey area during 2019 or 2020 focused special-status plant surveys. **None present**
Wiggins' croton	*Croton wigginsii*	BLM 2B.2	This species occurs in Sonoran Desert scrub in Imperial County, California, and in desert sand dunes at elevations of 160 to 330 feet amsl.	March to May	Perennial shrub	Suitable habitat for Wiggins' croton is present within the survey area, and one occurrence of this species has been observed within 0.25 mile of the proposed Project, near the intersection of I-8 and Ogilby Road. In addition, several occurrences have been observed within 5 miles of the proposed Project in the Algodones Dunes and the All-American Canal. However, no evidence of this species was found within the survey area during 2019 or 2020 focused special-status plant surveys. **None present**

[a] Explanation of federal and state listing codes:

BLM Species:
- BLM: Species considered to be "sensitive" by the BLM
USFWS Species:
-FT: Federally threatened
California Species:
-SE: State endangered

California Native Plant Society California Rare Plant Ranks:

-1B: Rare or endangered in California and elsewhere
-2B: Rare, threatened, or endangered in California, but more common elsewhere

California Rare Plant Rank Threat Code:

-0.2: Moderately threatened in California (20 to 80 percent of occurrences threatened, moderate degree and immediacy of threat)
-0.3: Not very threatened in California (less than 20 percent of occurrences threatened, low degree and immediacy of threat or no current threats known)