

**Office of
Energy Projects**

November 2023

Rio Bravo Pipeline Company, LLC

Docket No. CP23-519-000

Rio Bravo Pipeline Route Amendment

Environmental Assessment

Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426HDD

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 4
Rio Bravo Pipeline Company, LLC
Rio Bravo Pipeline Route Amendment
Docket No. CP23-519-000

TO THE INTERESTED PARTY:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared an environmental assessment (EA) for the Rio Bravo Pipeline Route Amendment (Route Amendment), proposed by Rio Bravo Pipeline Company, LLC (RB Pipeline) in the above-referenced docket.¹

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

The proposed Route Amendment includes the following four pipeline route adjustments, all within the state of Texas:

- adjust the certificated route between approximate milepost (MP) 69.8 to approximate MP 79.4 in Willacy County to conform to the U.S. Fish and Wildlife Service's Biological Opinion issued for the Rio Bravo Pipeline Project and to minimize impacts on potential ocelot habitat (the "U.S. Fish and Wildlife Service Route Adjustment");
- adjust the certificated route between approximate MP 92.4 and MP 93.0 in Willacy County to accommodate requirements of the International Boundary and Water Commission and landowner requests (the "North Floodway Route Adjustment");
- adjust the certificated route between approximate MP 99.7 and MP 100.5 in Willacy and Cameron Counties to accommodate a landowner request (the "Arroyo Colorado Route Adjustment"); and

¹ As authorized, the Rio Bravo Pipeline System consists of 135.7 miles of dual (parallel) pipelines; one 42 inches in diameter and the other 48 inches in diameter; one new compressor station; and associated meter stations and valves and related facilities. The Rio Bravo Pipeline Project was approved by the Commission on November 22, 2019, in Docket No. CP16-455-000, and amended (and approved by the Commission) on April 21, 2023, in Docket no. CP20-481-000.

- relocate a meter station and extend the approved Rio Bravo Pipeline route approximately 0.6 mile in Cameron County from the currently certificated terminus site to the meter station within the fenceline of the approved Rio Grande LNG Terminal site (the “Terminus Adjustment”).

The Commission mailed a copy of the *Notice of Availability* of the EA 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 Route Amendment 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/environmental-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://elibrary.ferc.gov/eLibrary/search>), select “General Search” and enter the docket number in the “Docket Number” field, excluding the last three digits (i.e., CP23-519). 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 all issues 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 Route Amendment, it is important that we receive your comments in Washington, DC on or before 5:00 pm Eastern Time on **December 14, 2023**.

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 Route Amendment docket number (CP23-519-000) 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/how-intervene>.

Additional information about the Route Amendment 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.

The Commission's Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including landowners, environmental justice communities, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions,

comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502-6595 or OPP@ferc.gov.

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.

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TECHNICAL ACRONYMS AND ABBREVIATIONS

Amendment EA	<i>Rio Bravo Pipeline Project Amendment</i> (Docket No. CP20-481-000)
ATWS	additional temporary workspace
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
dBA	decibels on the A-weighted scale
EA	environmental assessment
EI	environmental inspector
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
final EIS	<i>Final Environmental Impact Statement for the Rio Grande LNG Project</i> (Docket No. CP16-454-000)
HDD	horizontal directional drill
IBWC	International Boundary and Water Commission
L_{eq}	24-hour equivalent sound level
L_{dn}	day-night sound level
LNG	liquefied natural gas
MAOP	maximum allowable operating pressure
MP	milepost
NEPA	National Environmental Policy Act
Scoping Notice	<i>Notice of Scoping Period Requesting Comments on Environmental Issues for the Proposed Rio Bravo Pipeline Route Amendment</i>
NRHP	National Register of Historic Places
NSA	noise sensitive area
OEP	FERC's Office of Energy Projects
PEM	palustrine emergent wetland
PHMSA	Pipeline Hazardous Materials Safety Administration
Pipeline Project	Rio Bravo Pipeline Project
Plan	FERC's <i>Upland Erosion Control, Revegetation, and Maintenance Plan</i>
Procedures	FERC's <i>Wetland and Waterbody Construction and Mitigation Procedures</i>
RB Pipeline	Rio Bravo Pipeline Company, LLC
Route Amendment	Proposed Rio Bravo Pipeline Route Amendment (Docket No. CP23-519-000)
Secretary	Secretary of the Commission
SHPO	State Historic Preservation Office
USFWS	U.S. Fish and Wildlife Service

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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 Rio Bravo Pipeline Route Amendment (Route Amendment). On July 20, 2023, Rio Bravo Pipeline Company, LLC (RB Pipeline) filed an application for the Route Amendment with the Commission in Docket No. CP23-519-000 under Section 7(c) of the Natural Gas Act and Part 157 of the Commission's regulations. RB Pipeline seeks to obtain a Certificate of Public Convenience and Necessity (Certificate) to make four route adjustments to the previously authorized pipeline alignment for the Rio Bravo Pipeline Project (Pipeline Project).²

We³ 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 of the Code of Federal Regulations, Parts 1500-1508 [40 CFR 1500-1508])⁴; 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 RB Pipeline 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 Route Amendment-related environmental impacts; and
- facilitate public involvement in the environmental review process.

2. Route Amendment Purpose and Need

RB Pipeline states that the Route Amendment is being proposed to 1) minimize impacts on ocelot habitat and thereby address U.S. Fish and Wildlife Service (USFWS) concerns regarding the Pipeline Project's impacts on the ocelot and its habitat, 2) address agency and landowner concerns, 3) avoid recently constructed infrastructure, 4) meet the technical requirements of the International Boundary and Water Commission (IBWC), and 5) align the Pipeline Project with the approved design of Rio Grande LNG, LLC's

² For ease of reference, this EA considers the approved "Pipeline Project" to represent the currently approved iteration of the pipeline authorized by the Commission's April 21, 2023 *Order on Remand and Amending Section 7 Certificate* as relates to Docket Nos. CP16-455-000/-002, and CP20-481-000. On October 27, 2023, the Commission issued its *Order Addressing Arguments Raised on Rehearing*, which sustained the April 21, 2023 Remand Order.

³ "We," "us," and "our" refer to the environmental staff of the FERC's Office of Energy Projects.

⁴ On April 20, 2022, CEQ issued a final rule, *National Environmental Policy Act Implementing Revisions* (Phase 1: Final Rule, 87 Fed. Reg. 23,453 (Apr. 20, 2022)), which was effective as of May 20, 2022.

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Rio Grande LNG Terminal to which the Pipeline Project will interconnect. The proposed Route Amendment's adjustments to the previously approved Pipeline Project route would also result in the pipeline affecting fewer wetlands, forest lands, and prime farmland soils. Except as described in section B, below, the Route Amendment would not affect any sensitive resources or result in any unique impacts on any environmental resource not already considered in FERC's final environmental impact statement (EIS) for the Rio Grande LNG Project;⁵ the Rio Bravo Pipeline Project Amendment EA (Amendment EA);⁶ the Commission's November 22, 2019 *Order Granting Authorizations under Sections 3 and 7 of the Natural Gas Act* (2019 Order);⁷ and the Commission's April 21, 2023 *Order on Remand and Amending Section 7 Certificate* (Remand Order).⁸

Because the Remand Order incorporates by reference the previous approval and the environmental conditions of the 2019 Order, as well as contains additional conditions specific to the Pipeline Project, this EA will refer to the Remand Order as the controlling authority for all conditions related to the Rio Bravo Pipeline Project.

The changes proposed in the Route Amendment would be consistent and compatible with the certificated Pipeline Project's overall purpose and need originally described in the final EIS, Amendment EA, and Remand Order. Our analysis in this EA supplements, as necessary, and tiers off of the final EIS, Amendment EA, and Remand Order as applicable to the Rio Bravo Pipeline Project; therefore, we incorporate the final EIS, Amendment EA, and Remand Order by reference. All construction methodologies, project-specific plans, avoidance, minimization, and mitigation measures, and conditions identified in the final EIS and Amendment EA, as codified by the Remand Order, would continue to be applicable for the proposed Route Amendment.

3. Scope of this Environmental Assessment

The resources and topics addressed in this EA include geology, soils, groundwater, surface waters, wetlands, aquatic resources, wildlife, vegetation, species of special concern, socioeconomics, environmental justice, land use, recreation, visual impacts, cultural resources, 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 Route Amendment. This EA also presents our recommended mitigation measures.

⁵ *Final EIS for the Rio Grande LNG Project*, FERC/EIS-0287F, April 2019, Docket Nos. CP16-454-000 and CP16-455-000, FERC eLibrary Accession No. 20190426-3020.

⁶ *Rio Bravo Pipeline Project Amendment Environmental Assessment*, Docket No. CP20-481-000, December 2020, FERC eLibrary Accession No. 20201221-3012.

⁷ *Order Granting Authorizations under Sections 3 and 7 of the Natural Gas Act*, Docket Nos. CP16-454-000 and CP16-455-000, issued November 22, 2019, FERC eLibrary Accession No. 20191122-3046.

⁸ *Order on Remand and Amending Section 7 Certificate*, Docket Nos. CP16-454-003, CP16-454-000, CP16-455-000, CP16-455-002, and CP20-481-000, issued April 21, 2023, FERC eLibrary Accession No. 20230421-3056. This Order was sustained by the Commission in its October 27, 2023 *Order Addressing Arguments Raised on Rehearing*.

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As the lead federal agency for the Project, FERC is required to comply with Section 7 of the Endangered Species Act (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 Route Amendment. Permits, approvals, and consultations for the Route Amendment are discussed in section A.10, below.

4. Proposed Facilities

The Route Amendment would consist of the following four route adjustments to RB Pipeline's certificated Pipeline Project⁹, all within the state of Texas:

- adjust the certificated Pipeline Project route between approximate milepost (MP) 69.8 to approximate MP 79.4 in Willacy County to conform to the USFWS Biological Opinion issued for the Pipeline Project and to minimize impacts on potential ocelot habitat (the "USFWS Route Adjustment");
- adjust the certificated Pipeline Project route between approximate MP 92.4 and MP 93.0 in Willacy County to accommodate requirements of the IBWC and landowner requests (the "North Floodway Route Adjustment");
- adjust the certificated Pipeline Project route between approximate MP 99.7 and MP 100.5 in Willacy and Cameron Counties to accommodate a landowner request (the "Arroyo Colorado Route Adjustment"); and
- relocate a meter station and extend the certificated Pipeline Project route approximately 0.6 mile in Cameron County from the Pipeline Project's currently certificated terminus site to the meter station within the fence line of Rio Grande LNG, LLC's certificated Rio Grande LNG Terminal site (the "Terminus Adjustment").

In addition, RB Pipeline identified a change to the pipe wall thickness design of a majority of the certificated Pipeline Project route located in Class 1 areas. RB Pipeline would use an "alternative maximum allowable operating pressure (MAOP)" calculation, which would maintain the currently authorized MAOP of 1,825 pounds per square inch gauge, decrease the pipe wall thickness of the 48-inch-diameter pipeline from 0.87 inch to 0.78 inch, decrease the pipe wall thickness of the 42-inch-diameter pipeline from 0.761 inch to 0.682 inch, and change the pipeline design factor from 0.72 to 0.80, each as consistent with the Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations specified in 49 CFR 192.620. RB Pipeline would also increase the proposed wall thickness of the Pipeline Project's pipeline system

⁹ As authorized, the Rio Bravo Pipeline System consists of 135.7 miles of dual (parallel) pipelines; one 42 inches in diameter and the other 48 inches in diameter; one new compressor station; and associated meter stations and valves and related facilities.

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for certain Class 2 areas and bore locations. The design modifications do not result in any environmental impacts.

The proposed route adjustments generally follow the approved pipeline route, with only slight offsets. For example, while the Route Amendment would deviate from the approved Pipeline Project route by as much as 0.4 mile (around 2,000 feet) as part of the USFWS Route Adjustment, the majority of the Route Amendment would offset the new route by no more than approximately 250 to 750 feet from the approved route, with some stretches adjacent to or using the same right-of-way as the approved route.

Figure 1 illustrates the general locations of the proposed Route Amendment in relation to the Pipeline Project's approved right-of-way.¹⁰ More detailed overview maps illustrating each of the Route Amendment's proposed adjustments are provided in appendix B.

¹⁰ Alignment sheets illustrating the Route Amendment's adjusted pipe segments and facility locations relative to the certificated Pipeline Project are filed in FERC eLibrary Accession No. 20231010-5370, Attachment 1-1, Revised Appendix 1.B.

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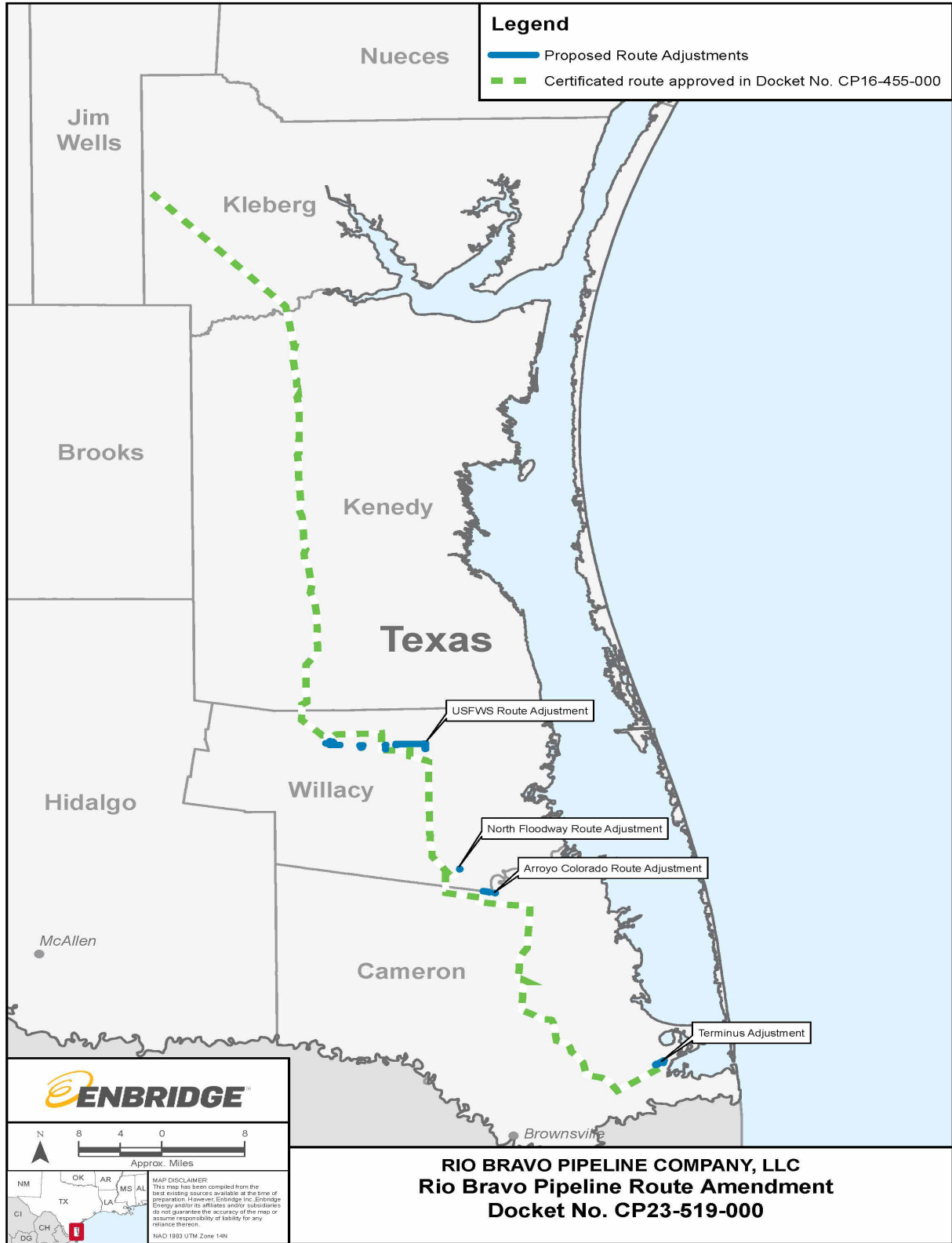


Figure 1: Rio Bravo Pipeline Route Amendment Overview Map

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5. Construction and Operation Procedures

During construction and restoration of the workspaces associated with the Route Amendment, RB Pipeline would implement all applicable measures discussed throughout the final EIS, Amendment EA, and within the Remand Order.

RB Pipeline would follow the same construction and operation procedures for the portions of the Rio Bravo Pipeline affected by this Route Amendment as those described in the final EIS for the approved Rio Bravo Pipeline Project.¹¹ This includes adoption of the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan (Plan)* and *Wetland and Waterbody Construction and Mitigation Procedures (Procedures)*¹², as more fully described and revised in the final EIS. RB Pipeline would employ at least two environmental inspectors (EI) per pipeline spread of the Pipeline Project, as required by the Remand Order, to monitor construction activities, oversee and document environmental compliance, and prepare inspection reports for submission to the FERC.

6. Construction Schedule

RB Pipeline has requested that the Commission issue an order granting the proposed Route Amendment modifications by December 29, 2023. As described in the final EIS, the pipeline will be constructed in phases. Phase 1 will begin in Year 3 of the LNG Terminal construction,¹³ and will consist of the dual header pipes, the 48-inch-diameter pipeline, and the compressor station, to be operational upon the commencement of the LNG Terminal operations. Phase 2 includes construction of the 42-inch-diameter pipeline and installation of electric units and remaining facilities at the compressor station, and is estimated to begin about 18 months following the commencement of Phase 1 operations.

7. Land Requirements

Construction of the Route Amendment would add approximately 123.3 acres to the overall footprint of the approved Rio Bravo Pipeline Project as disclosed in the Amendment EA. Operation of the Route Amendment would permanently affect approximately 42.1 acres more than the approved Pipeline Project. The Route Amendment would also require an additional 12.8 acres for new access roads associated with the USFWS Route Adjustment between MPs 70.0 and 79.7. Table 3 in section B, below, presents a detailed breakdown of land requirements of the overall Pipeline Project by land use type before and after the proposed Route Amendment.

¹¹ Final EIS at 2-34. Amendment EA at 10.

¹² The FERC Plan and Procedures can be viewed on the FERC website at <http://www.ferc.gov/industries/gas/enviro/plan.pdf> and <http://www.ferc.gov/industries/gas/enviro/procedures.pdf>, respectively.

¹³ Site preparation, levee construction, and the material offloading facility have been approved and are ongoing at the LNG Terminal site. Further construction of the LNG Terminal has not yet been authorized.

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8. Non-Jurisdictional Facilities

No non-jurisdictional facilities are associated with the proposed Route Amendment.

9. Public Review and Comment

On August 23, 2023, the Commission issued a *Notice of Scoping Period Requesting Comments on Environmental Issues for the proposed Rio Bravo Pipeline Route Amendment* (Scoping Notice). The Scoping Notice was sent to about 178 interested parties including 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. Publication of the Scoping Notice established a 30-day public scoping period for the submission of comments, concerns, and issues related to the environmental aspects of the Route Amendment.

In response to the Scoping Notice, the Commission received approximately 74 comment letters (including over 60 form letters) from individuals, comment letters from the U.S. Environmental Protection Agency (EPA) and USFWS, and 4 requests for intervention, two of which contained comments. In addition, Rio Grande LNG, LLC filed general comments in support, and RB Pipeline filed three separate answers to public scoping comments. All comments received were reviewed during preparation of this EA, and addressed as relevant to the environmental impacts that may result from construction and operation of the Route Amendment. We note that a majority of the comments focused on aspects that are not within the scope of the environmental review of the proposed Route Amendment; for example, general opposition to fossil fuels, opposition to U.S. energy policy, requests that the Rio Grande LNG Terminal not be constructed, and other concerns regarding the previously-approved Rio Grande LNG Terminal facilities and Rio Bravo Pipeline Project. Such out-of-scope comments are summarized in table 2, below, and not discussed further in this EA.

Some of the EPA's comments likewise were beyond the scope of our review. The EPA commented providing several recommendations on air quality-related issues, including describing existing air quality conditions in the "project" area, quantifying emissions from the "project," specifying emissions sources, and developing a construction emissions mitigation plan for the "project." As stated in the Scoping Notice, the previously approved Pipeline Project is not under re-consideration in our review of the proposed Route Amendment. The Route Amendment is not a standalone pipeline project, but rather a proposal to incorporate re-routes along four discrete pipe segments along the contiguous and certificated Pipeline Project right-of-way.

Based on our review of RB Pipeline's application, the Route Amendment would not result in additional air quality impacts (including greenhouse gas emissions)

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compared to the construction and operation of the already approved Pipeline Project.¹⁴ As stated in section A.7, the Route Amendment would add to the Pipeline Project's authorized construction footprint by 123.3 acres, an increase of approximately 5.0 percent. Any nominal increase in construction emissions that could potentially result from the increased land disturbance would not affect our analysis or conclusions on construction related air quality impacts as stated within the final EIS, 2019 Order, Amendment EA, or Remand Order. In addition, as described in section A.4, the Route Amendment would extend the length of the Rio Bravo pipeline by approximately 0.6 mile, an increase of approximately 0.4 percent, and any nominal increase in fugitive releases as a result of this additional pipeline length would not affect our analysis and conclusions on operational air quality impacts as stated within the final EIS, 2019 Order, Amendment EA, or Remand Order. Therefore, we conclude that the air quality impacts and climate change discussion related to the construction and operation of the proposed Route Amendment have already been fully assessed in staff's prior NEPA analyses and considered in the Commission's Remand Order, and are not discussed further in this EA.

Similarly, the EPA commented recommending that the EA address the potential direct, indirect, and cumulative impacts of solid and hazardous waste from construction, maintenance, and operation of the proposed "project." As with the EPA's air quality comments, the potential impacts regarding solid and hazardous waste related to the Route Amendment have been fully addressed in previous reviews.

Table 1 indicates the resources or project aspects that received in-scope comments and indexes the section within this EA where each comment is addressed.

Comment/Concern	Section addressing Comment
requests to extend comment period	A.9
endangered species (e.g., ocelot habitat)	B.4.3
permitting related to the International Boundary Waters Commission	B.3.2
permitting relating to the Rivers and Harbors Act Section 14	B.3.2
wetlands	B.4.2
wildlife	B.4.2
cultural resources	B.6
environmental justice	B.7.8
construction noise	B.8.2
reliability and safety	B.9

We received numerous comments requesting that the Commission extend the Scoping Notice comment period for filing comments related to the Route Amendment. A 30-day period is the standard length of time for the Commission's NEPA scoping, and we

¹⁴ As presented in the final EIS, Amendment EA, and Remand Order. See Pipeline Project construction emissions updates filed as part of the proceeding for the Remand Order, FERC eLibrary Accession No. 20230224-5189.

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believe it is sufficient and warranted here. We do, however, review and consider comments received after a scoping period closes. For this proceeding, we did receive comments after the close of the scoping period, up through October 11, 2023; these have been considered in preparation of this EA.

In addition, we received many comments that did not fall within the specific scope of analysis of the Route Amendment. These comments are summarized by commentor, general nature of comment received, and explanation for not including this comment within the scope of our environmental analysis for this Route Amendment, in table 2, below.

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Table 2 Out of Scope Comments Received		
Commenters	General Comment Category	Explanation for Comment Falling out of Our Scope of Environmental Analysis for the Route Amendment
Galasso, Millard, Reynoso, Leal, Saxon, Hollmann, Cochran, Smith	details about the air permits for the project's emission sources (e.g., for Compressor Station 1) should be included in the review process	No operational emission sources requiring air permits are included within the scope of the Route Amendment. Operational emissions, including a discussion of necessary permits, were fully evaluated in the final EIS.
Galasso, Millard, Reynoso, Leal, Saxon, Hollmann, Cochran, Smith	the environmental review should account for methane venting and leaks along the pipeline	Methane leaks along the pipeline, estimated in p. 26 of the Amendment EA, would remain substantially unchanged as a result of the Route Amendment. An estimate of methane venting releases associated with Compressor Station 1 is presented in table 5 of the Amendment EA; see above explanation for emission sources.
Cochran, Mancias, Guevara and 61 individuals, Teter, South Texas Environmental Justice Network and numerous other Non-Governmental Organizations	comments related to the overall impact of the Pipeline Project and associated Rio Grande LNG Terminal on cultural resources, land use, wildlife, wetlands, environmental justice, safety, air quality, climate change	Potential impacts of the Pipeline Project and LNG Terminal were previously evaluated in the final EIS, Amendment EA, and Remand Order, and are not re-evaluated here. However, any potential changes in those impacts due to the Route Amendment are evaluated in this EA.
Guevara and 61 individuals	"fracked" gas delivered to the Rio Grande LNG Terminal would have a long-lasting footprint	The 2019 Order dismissed the topic of upstream impacts as being out of scope of the Pipeline Project's analysis.
Teter	HDD sites along Highway 48 would impact several communities with "24/7" noise	The final EIS section 2.5.2 evaluates noise impacts of all proposed HDD sites including those along Highway 48 having the potential to impact nearby communities; noise impacts from a new HDD in this proposed Route Amendment are discussed in section B.8.2
Teter, Young, Mancias	"independent studies" of the Pipeline Project are needed; Enbridge should identify the company that produced its "environmental impact study"; larger historical record of resource extraction and land use in the Pipeline Project area must be considered; comments on projects unrelated to the Pipeline Project	These comments are not related to environmental impact or specific to the environmental review of the Route Amendment.
Texas Environmental Justice Network and numerous other Non-Governmental Organizations	request for public hearing	The commentors' request for public hearing was not limited to the proposed Route Amendment but related to the entire Pipeline Project and Rio Grande LNG Terminal generally; the Rio Grande LNG Terminal was authorized by the 2019 Order and Remand Order; as stated in the Scoping Notice, neither the Pipeline Project or the LNG Terminal Project is under re-consideration in this Route Amendment.

A. PROPOSED ACTION

10. Permits

A number of federal, state, and local regulatory agencies have permit or approval authority or consultation responsibilities associated with the proposed Route Amendment. Table A-1 in appendix A provides a list of permits and consultations pertinent to the Route Amendment; the applicable local, state, and federal agencies; as well as the permit or consultation status. RB Pipeline would be responsible for obtaining all permits and approvals required for the Route Amendment, regardless of whether or not they appear in the table.

B. ENVIRONMENTAL ANALYSIS

B. ENVIRONMENTAL ANALYSIS

The following sections discuss the Route Amendment's potential direct and indirect impacts on environmental resources. When considering the environmental consequences of the Route Amendment, 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.

A comparison of environmental resource impacts for the Rio Bravo Pipeline Project as currently authorized, as modified by the proposed Route Amendment, and the net change in impacts is presented in table 3, below. As demonstrated in the table, the Route Amendment would result in less impact for most resources compared to the Pipeline Project as currently authorized, other than impacts on agricultural and commercial lands.

B. ENVIRONMENTAL ANALYSIS

Table 3 Comparison of Impacts of the Pipeline Project as Authorized and Modified by Route Amendment for Selected Resource Types a/			
Environmental Resource	Impacts as Authorized	Impacts as Proposed	Net Change (+/-)
Waterbodies			
waterbodies crossed (number)	71	72	+1
total waterbody crossing width (in feet)	6,325.8	6,243.4	-82.4
Upland Vegetation			
herbaceous, construction/operation (acres)	1,097.1 / 544.8	1,070.3 / 507.9	-26.8 / -36.9
shrub/forest, construction/operation (acres)	542.5 / 338.5	515.2 / 316.6	-27.3 / -21.9
Wetlands			
palustrine emergent wetlands, construction/operation (acres)	42.0 / 38.0	40.1 / 36.0	-1.9 / -2.0
palustrine scrub-shrub wetlands, construction/operation (acres)	3.5 / 3.5	3.5 / 3.5	0 / 0
palustrine forested wetlands, construction/operation (acres)	9.9 / 7.8	9.9 / 7.8	0 / 0
estuarine emergent wetlands, construction/operation (acres)	83.5 / 53.9	83.5 / 53.9	0 / 0
estuarine scrub shrub, construction/operation (acres)	0.1 / 0.0	0.1 / 0.0	0 / 0
estuarine unconsolidated shore, construction/operation (acres)	6.4 / 4.1	6.4 / 4.1	0 / 0
Soils			
hydric soils, construction (acres)	741.0	748.5	+7.5
wind erodible soils, construction (acres)	898.6	836.1	-62.5
compaction prone soils, construction (acres)	2,601.7	2,473.1	-128.6
poor revegetation potential soils, construction (acres)	1,255.4	1,230.7	-24.7
prime and important farmland soils, construction/operation (acres)	879.8	870.7	-9.1
Land Requirements			
Pipeline Project length, header system plus mainline (miles)	135.7	136.3	+0.6
open land, construction/operation (acres)	1097.2 / 544.8	1,067.1 / 514.3	-30.1 / -30.5
open water, construction/operation (acres)	8.0 / 6.5	11.1 / 10.6	+3.1 / +4.1
industrial/commercial land, construction/operation (acres)	20.9 / 4.4	53.0 / 17.7	+32.1 / +13.3
agricultural land, construction/operation (acres)	670.4 / 321.6	799.3 / 389.4	+128.9 / +67.8
barren land (acres)	11.3 / 7.3	29.8 / 18.8	+ 18.5 / +11.5
a/ See Attachment 1-1 to RB Pipeline's 9/27/2023 response to FERC's 9/7/2023 Environmental Information Request, FERC eLibrary Accession No. 20230927-5109, for a detailed listing of source references within the final EIS, Amendment EA, and proposed Route Amendment application.			

1. Geology

Section 4.1 of the final EIS describes existing geological resources, the impacts on geological resources, and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to implement for Pipeline Project construction and restoration; these would also be applied to the Route Amendment. Given these measures, the proposed Route Amendment is not likely to have any new, unanticipated consequences from blasting, or impacts on any new paleontological resources or on non-oil mineral resources.

B. ENVIRONMENTAL ANALYSIS

The final EIS noted that the potential for geologic hazards (earthquakes, surface faults, soil liquefaction, subsidence, storm damage, shoreline erosion, karst, avalanches, volcanoes, landslides, and flooding) is not likely to affect construction and operation of the proposed facilities. No new geological features are anticipated as a result of this proposed Route Amendment unless they are new, uncharacterized, geological features crossed by new and location-shifted horizontal directional drill borings (HDDs). This is considered below.

1.1 Mineral Resources

Section 4.1.2 of the final EIS describes mineral resources. The final EIS noted no non-oil/gas mineral resources within 0.25 mile of the Project, with 265 oil and gas wells within 0.25 mile throughout the workspace of the entire Project (57 active and 15 permitted but undrilled). No additional oil or gas wells have been identified within 150 feet of the proposed Route Amendment work areas.

As previously documented, there are 22 known oil and gas wells within 0.25 mile of the portion of the approved pipeline route and workspaces corresponding to the proposed USFWS Route Adjustment; this would be reduced to 20 wells with adoption of the Route Amendment. Similarly, there is one known oil and gas well within 0.25 mile of the North Floodway Route Adjustment which was present under the certificated alignment, and no oil and gas wells within 0.25 mile of the Arroyo Colorado Route Adjustment or Terminus Adjustment. Accordingly, we conclude that the Route Amendment would not result in any additional impacts on mineral resources.

1.2 General Impacts and Mitigation

The construction methodologies described in the final EIS, including the HDD methodology, would be implemented for the proposed Route Amendment, and no new methodologies would be introduced. RB Pipeline would also comply with all mitigation measures as fully described in the final EIS and outlined in RB Pipeline's *HDD Contingency Plan* related to geological resources. We note that HDDs may fail when the drill path crosses unanticipated subsurface conditions. Although the final EIS outlined risks associated with HDD failure, these risks cannot yet be quantified for the Route Amendment without a site-specific HDD Plan and feasibility study for all newly proposed HDD locations. RB Pipeline is required, per environmental condition no. 16 of the 2019 Order (and by reference in the Remand Order) to provide detailed geotechnical surveys and reports including mitigation measures and to conduct geotechnical feasibility assessments at all HDD sites in order to confirm site-specific geological conditions. This condition would also apply to the Route Amendment.¹⁵

¹⁵ On September 27, 2023, RB Pipeline provided its preliminary HDD Plan for the Route Amendment, which we find consistent with FERC's *Guidance for Horizontal Directional Drill Monitoring, Inadvertent Return Response*,

B. ENVIRONMENTAL ANALYSIS

We do not anticipate that the Route Amendment would affect paleontological resources or be impacted by geological hazards in a manner not previously considered in the final EIS. We find our qualitative analysis of geological impacts in the final EIS remains accurate for the proposed Route Amendment. Given RB Pipeline's proposed mitigation and design criteria, and the additional mitigation required by the Remand Order, we conclude that the Route Amendment would not significantly impact or be impacted by geological conditions in the area and that the overall effect of the Amendment on geology would be minor.

2. Soils

Section 4.2 of the final EIS describes the existing soil resources, the impacts on soil resources, and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the Pipeline Project. These would also apply to the Route Amendment.

The soils that would be affected by construction and operation of the Pipeline Project were identified and assessed in the final EIS using the Soil Survey Geographic database (SSURGO 2023).

Table 3, above, summarizes the characteristics of soils that would be affected by construction of the Route Amendment. Potential impacts on soil resources from construction of the Route Amendment may be associated with certain soil types and limitations, including prime farmland, hydric soils, soils prone to compaction, soils susceptible to erosion due to wind, soils with poor revegetation potential, and potentially contaminated soils. These are described further below. All impacts on soils are expected to be temporary, related to construction; no soil characteristics would have permanent impacts from operational use of the adjusted pipe segments included in the Route Amendment.

2.1 Prime Farmland

Prime and important farmlands are determined by state and federal agencies to have the physical and chemical characteristics capable of producing the highest yields of a wide range of crops with the lowest energy expense, while having the least amount of damage to the environment. The final EIS noted that construction would affect 879.8 acres of prime and important farmland. Route Amendment modifications would reduce this acreage to 870.7 acres (a net decrease in construction footprint of 9.1 acres).

2.2 Hydric Soils

Hydric soils are generally associated with wetlands and proximity to waterbodies. Soils that are artificially drained or protected from flooding (e.g., by levees that have

and Contingency Plans (FERC HDD Guidance 2019). Our final assessment of RB Pipeline's HDD proposals will be conducted after RB Pipeline has fulfilled the full extent of condition no. 16.

B. ENVIRONMENTAL ANALYSIS

straightened and bracketed local streams) are still considered hydric if the soil in its undisturbed state would meet the definition of a hydric soil.

The Route Amendment would cross and potentially affect several soil associations that contain hydric soils. The final EIS noted that construction of the Rio Grande LNG Terminal site and Pipeline Project facilities would cross 741 acres of hydric soils. The Route Amendment modifications would increase impacts on hydric soils by 7.5 acres, for a total of 748.5 acres.

2.3 Compaction Potential

Soil compaction modifies the structure and reduces the porosity and moisture-holding capacity of a soil. The degree to which soil is compacted during construction depends on the soil moisture content and texture. Fine-textured soils with low internal drainage and high shrink-swell potential are the most susceptible to compaction. Construction equipment travel and vehicular access over wet soils may disrupt soil structure, reduce pore space, increase runoff potential, and cause rutting.

The final EIS noted that construction would affect 2,601.7 acres of compaction-prone soils. The Pipeline Project as modified by the proposed Route Amendment would affect 2,473.1 acres of compaction prone soils, a 128.6 acre reduction from the acreage estimated in the final EIS.

2.4 Erosion and Revegetation Potential

The final EIS found that construction of the Pipeline Project would affect 898.6 acres of soils considered susceptible to wind erosion. The Route Amendment modifications would decrease the estimated construction impacts on soils susceptible to wind erosion from 898.6 acres to 836.1 acres.

Long-term revegetation success and restoration are essential for maintaining soil productivity and avoiding future erosion problems and associated soil loss. The revegetation potential of the soils within the Route Amendment areas was evaluated based on soil characteristics including texture, slope, and drainage class. Drier soils have less water to aid in the germination and eventual establishment of new vegetation. Coarser textured soils have a lower water-holding capacity following precipitation, which could result in moisture deficiencies in the root zone and unfavorable growing conditions for many plants.

The final EIS noted that construction of the Pipeline Project would affect 1,255.4 acres of soils with poor revegetation potential. The Route Amendment modifications would decrease the construction impacts on poor revegetation soils by 24.7 acres, from 1,255.4 acres to 1,230.7 acres.

B. ENVIRONMENTAL ANALYSIS

2.5 Soil Contamination

The final EIS identified no registered soil contamination sites within 0.25 mile of the Pipeline Project. According to our database review (EPA, 2016a) of sites with possible soil contamination, there were no documented soil contamination sites within 0.25 mile of the proposed Route Amendment's adjusted pipe segments.

In summary, we do not anticipate that the Route Amendment would affect soils in a manner not previously considered in the final EIS, and that our description of construction methodologies and qualitative analyses of soil impacts described within the final EIS remain accurate. The Route Amendment would predominantly result in a reduction, or shift from one location to another, of impacts. RB Pipeline would also comply with all mitigation measures that are fully described in final EIS as applicable to the Route Amendment, and with these measures in place, we conclude that the Route Amendment would not result in significant impacts on soils.

3. Water Resources and Wetlands**3.1 Groundwater Resources**

Section 4.3.1 of the final EIS describes the existing groundwater resources, the impacts on groundwater resources, and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the Pipeline Project, and which RB Pipeline would apply to the Route Amendment.

The final EIS noted that the Pipeline Project would cross over 35,000 square miles of the Coastal Lowlands Aquifer System (also called the Gulf Coast Aquifer System), composed of five permeable zones and two confining units, in the Coastal Plain of Texas. As noted in the final EIS, the Pipeline Project does not cross any sole source aquifers. The most shallow aquifer unit in the Coastal Lowlands Aquifer System is the Chicot Aquifer which is 0 to 250 feet below ground surface (bgs) in the northwestern Pipeline Project area and 1,200 feet bgs in Jim Wells County, within the southeastern portion of the Pipeline Project area. The final EIS concluded that construction methodologies would not adversely affect groundwater quality and the minor amended modifications are anticipated to provide a similar, non-significant result. Any impacts would be temporary and minor given the proposed mitigation procedures outlined in the final EIS.

The final EIS also noted that 13 groundwater supply wells are known to be within 200 feet of the Pipeline Project; however, only one industrial well was identified within the proposed construction workspace at MP 5.9 (within King Ranch). No additional groundwater wells are within 0.25 mile of construction right-of-way of the proposed Route Amendment modifications. As was concluded in the final EIS, RB Pipeline would identify and avoid any discovered wells in coordination with landowners.

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Prior to construction, RB Pipeline would offer the land/well owner(s) pre- and post-construction water quality well testing conducted by a qualified independent inspection service for changes in well water quality in yield. Should construction of the Route Amendment temporarily impact a private or public well quality, RB Pipeline would provide alternative water sources or other compensation to the land/well owner(s). Should construction impacts permanently impact a well, RB Pipeline would repair, replace, or provide alternative sources of potable water to the land/well owner(s) or work with the landowner to determine appropriate compensation.

We do not anticipate that the Route Amendment would have any additional impacts on groundwater beyond those impacts already considered in the final EIS, nor impact groundwater in a way previously not considered. We conclude that our qualitative analysis of groundwater impacts in the final EIS remains accurate for the Pipeline Project as modified by the Route Amendment.

With implementation of the measures discussed in the final EIS, the activities associated with the Route Amendment would result in negligible to minor and temporary impacts on local groundwater resources. The construction methodologies described in the final EIS for the Pipeline Project would apply to the Route Amendment, and no new methodologies would be introduced. RB Pipeline would also comply with all mitigation measures that are fully described in the final EIS and with these measures in place, no significant impacts on groundwater would result from the portions of the Pipeline Project modified by the Route Amendment.

3.2 Surface Water and Wetlands

Sections 4.3 and 4.4 of the final EIS describe the existing surface water and wetland resources, the impacts on surface water and wetland resources, and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the Pipeline Project, which RB Pipeline would also apply to the proposed Route Amendment. As stated in the final EIS, RB Pipeline would cross all waterbodies with perceptible flow between November 1 and January 31.

The USFWS Route Adjustment would modify the impacts to a palustrine emergent (PEM) wetland (WW-TDS-142). RB Pipeline would now impact 0.6 acre from construction and operation, reduced from 1.1 acres. An additional PEM wetland (WW-T19-001) falls in the alignment of the USFWS Route Adjustment, but RB Pipeline proposes to cross this wetland and U.S. Highway 77 North via HDD. This wetland would therefore only be impacted if an inadvertent return occurred during the process. As stated in section 4.4.2.2 of the final EIS, RB Pipeline would follow its *HDD Contingency Plan*, which includes methods for detecting and responding to inadvertent returns. As additionally described in the final EIS, RB Pipeline would hand-clear a 2-foot-wide swath of vegetation over the path of the HDD to facilitate placement of guide wires to direct the path of the drill. However, RB Pipeline states that hand clearing of

B. ENVIRONMENTAL ANALYSIS

vegetation within wetlands would only be necessary if the vegetation is too thick for personnel to traverse on foot. RB Pipeline would apply the same approach to the Route Amendment.

The Terminus Adjustment would avoid a wetland (WW-T19-001), whereas under the certificated route, 0.41 acre of temporary and 0.31 acre of permanent impacts to this PEM wetland would occur. Two additional wetlands would be crossed via HDD by the pipeline segments associated with the Route Amendment, and therefore the previously estimated impacts on these wetlands would be avoided unless an inadvertent return were to occur during the course of HDD construction.

RB Pipeline has identified multiple areas where additional temporary workspace is required within 50 feet of a waterbody or wetland for the Route Amendment. Per the Procedures (section V.B.2), all extra workspace areas are required to be at least 50 feet away from a waterbody's edge (except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land). If this is not feasible, the project sponsor would need to file a site-specific justification for each extra work area, including a discussion as to why the site-specific conditions do not permit a 50-foot setback, and measures to ensure the waterbody would be adequately protected. Accordingly, RB Pipeline has filed justifications for each requested additional temporary workspace (ATWS) within 50 feet of a waterbody, along with updated dimensions and total workspace areas (table 4). Where workspace dimensions vary, total area in square feet is provided. We reviewed all of these requests and find them acceptable.

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ATWS ID	Wetland/ Waterbody ID (feature type)	Workspace Dimensions (feet and/or square footage total)	Nearest Milepost (approximate)	RB Pipeline Justification
426	WW-T19-001 (PEM wetland)	495,071 sq ft	70.2	Wetland adjacent to existing gravel yard; would be avoided by HDD
467, 474, 468, and 473	SS-T15-008 (intermittent stream)	117 x 25, 121 x 25, 95 x 25, and 93 x 25	75.6	Required for equipment staging and truck access onto the proposed right-of-way
447 and 450	SS-TS-11-001 (intermittent stream)	716 x 50-100 and 75,139 sq ft	76.7	Necessary to allow for safe construction vehicle passage and work area
445A and 446A	SS-TS-002 (intermittent stream)	613 x 55 and 289,540 sq ft	79	Necessary to allow for safe construction, vehicle passage, and work area
271	SS-T04-006 (intermittent stream)	201 x 2,087	99.6	Requested for safe right-of-way access during HDD pullback activities
272	SS-T09-006 (unknown)	467 x 42	99.9	Requested for equipment and truck access for the HDD pullback and valve site installation
419 and 420	WW-T02-001c and WW-3 (unknown)	97,431 and 30,549 sq ft	135.2- 135.3	Requested for the safe execution of HDD drilling activities in both directions
422	WW-3 (unknown)	1,336 x 75	135.9	Requested to limit construction interference of the Rio Grande LNG facility
Sq ft = square feet				

RB Pipeline has requested multiple ATWS that would require the matting of intermittent unnamed drainage ditches. As discussed in the final EIS, RB Pipeline would follow the measures in RB Pipeline's Plan and Procedures to access these areas and prevent downstream sedimentation. If these areas are dry during construction, standard upland construction techniques would be used. However, if water is present, RB Pipeline would install temporary equipment bridges across waterbodies to allow equipment to cross with minimal impact on the waterbody. Temporary equipment bridges may consist of pre-fabricated construction mats, rail flat cars, flexi-float or other temporary bridges, or flume installations. Flume installations include suitably sized culverts and a travel surface consisting of clean rock fill. At all temporary equipment bridge locations, care would be taken to minimize sedimentation of the waterbody and to install culverts in a way that would prevent scour. In accordance with RB Pipeline's project-specific Procedures, instream construction activities associated with minor waterbody crossings would be completed within 24 hours, and intermediate waterbody crossings would be completed within 48 hours, as practicable. Sediment barriers (silt fence and/or straw bales) would be installed at the waterbody crossing to minimize sedimentation into the waterbody from disturbed upland areas. Similarly, RB Pipeline would follow its Plan

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and Procedures for the portions of the Pipeline Project modified by the Route Amendment.

As indicated in table 4, above, RB Pipeline has stated that waterbodies SS-TS-11-002, SS-TS-11-001, and SS-TS-11-001 are not anticipated to be dry at the time of crossing. RB Pipeline has indicated that it would maintain any flow present within these drainage ditches in compliance with section V.B.3.e of the Procedures by placing temporary equipment bridges across waterbodies. These bridges may be pre-fabricated construction mats, rail flat cars, flexi-float or other temporary bridges, or flume installations. Flume installations would include suitably sized culverts and a temporary travel surface of clean rock fill. This would sufficiently minimize downstream impacts.

We received comments from the EPA regarding water resources quality and permitting requirements. As stated in the final EIS, RB Pipeline would implement its *Stormwater Pollution Prevention Plan* during construction in accordance with the National Pollutant Discharge Elimination System and applicable state discharge permits. No additional impacts on impaired waters, sensitive waterbodies, or floodplains would occur as a result of this Route Amendment. No additional potable water intakes would be required, and the volume of water required for dust control and hydrostatic testing would not change from the Pipeline Project as already approved.

We received comments related to concerns about water quality, wetlands, the IBWC, and the Rivers and Harbors Act. Many of the concerns related to “further impacts” from project changes and the fact that a number of permits have not yet been obtained by RB Pipeline. We note that this EA updates the environmental analysis related to the proposed project changes. Also, different permits have different timing requirements. Most of these are documented in the final EIS and Amendment EA; any additional or updated permit requirements are presented in table A-1 in appendix A of this EA. The final EIS addresses the IBWC requirements, stating that RB Pipeline would develop site-specific HDD crossing plans for the two waterbodies regulated by the IBWC within the Project area. Nothing in the proposed Route Amendment changes that requirement. Further, RB Pipeline has stated that the 401 Clean Water Certification issued by the Texas Railroad Commission on February 14, 2020, and the U.S. Army Corps of Engineers Section 404 permit issued in September 2021 for the Pipeline Project are valid for the Route Amendment.

RB Pipeline would comply with the avoidance, minimization, and mitigation measures that are fully described in the final EIS and required by the Remand Order. Given the Route Amendment would reduce overall impacts on waterbodies and wetlands, and RB Pipeline would follow the measures in its Plan and Procedures, *HDD Contingency Plan*, and relevant permits for the Route Amendment, we conclude that impacts on wetlands and waterbodies would not be significant as a result of the Route Amendment.

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4. Fisheries, Vegetation, and Wildlife**4.1 Aquatic and Fisheries Resources**

Section 4.6.2 and 4.6.3 of the final EIS describes the existing aquatic resources and essential fish habitat, respectively; the impacts on these resources; and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the Pipeline Project as modified by the proposed Route Amendment.

Incorporation of the Route Amendment would result in an additional 3.1 acres of impact on open water during construction, and an additional 4.1 acres during operation (see table 3). However, during construction, the total waterbody crossing width would be reduced from 6,325.8 feet to 6,243.4 feet (a 82.4-acre reduction). Overall, the Route Amendment would reduce impacts on aquatic habitat given the avoidance of resources via HDD crossings. Furthermore, the additional waterbodies that would be crossed by the Route Amendment are mainly intermittent unnamed drainage ditches having low potential for containing habitat of high value for aquatic species.

The construction methodologies described in the final EIS would continue to apply to, and no new methodologies would be introduced for, the Route Amendment. Overall, the qualitative impacts as disclosed in the final EIS on aquatic resources are not expected to change with the Route Amendment, as it would result in an overall reduction and some shifting of impacts on aquatic resources, which would be negligible to minor. RB Pipeline would comply with the avoidance, minimization, and mitigation measures that are fully described in final EIS and required by the Remand Order, and with these measures in place, we do not expect the Route Amendment to result in significant impacts on aquatic resources.

4.2 Vegetation and Wildlife

Section 4.5 and 4.6 of the final EIS describes the existing vegetation and wildlife resources, respectively; the impacts on these resources; and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the Pipeline Project. These would also apply to the proposed Route Amendment. No new vegetation land cover types would be affected by the Route Amendment modifications. The construction methodologies described in the final EIS would be used, and no new methodologies have been proposed for the Route Amendment.

Construction of the Pipeline Project as modified by the Route Amendment would reduce the temporary disturbance to vegetation compared to its currently certificated configuration. A total of 1,585.5 acres of upland (herbaceous and shrub/forest) habitat would be affected by construction of the Pipeline Project as modified by the Route Amendment, which is a reduction of 54.1 acres (see table 3, above). The modified Pipeline Project would retain a total of 824.5 acres of upland habitat for operation, which is a reduction of 58.8 acres compared to the approved Pipeline Project. Construction and

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operational impacts on palustrine scrub-shrub, palustrine forested, and estuarine wetlands would remain the same, but the Route Amendment would reduce impacts from construction and operation on palustrine emergent wetlands by 1.9 acres and 2.0 acres, respectively.

We received comments from the EPA regarding herbicides in riparian zones and surface water. Per the Procedures, RB Pipeline would not use herbicides or pesticides in or within 100 feet of a waterbody or wetland except as allowed by the appropriate land management or state agency.

We also received a comment related to concerns about “species habitat.” Overall, construction and operational impacts on wildlife habitat would decrease from incorporation of the Route Amendment due to the rerouting and the use of HDD crossing methods. Specifically, the Route Amendment would result in a net reduction of 27.7 acres (construction) and 23.5 acres (operation) of potential wildlife habitat, compared to what was previously evaluated in the final EIS. Given the overall reduction in the amount of impacts associated with the Route Amendment, we conclude that impacts on wildlife and vegetation would be sufficiently minimized and not significant.

Migratory birds

Impacts on migratory birds from the Pipeline Project as modified by the proposed Route Amendment are expected to be similar or less than those disclosed in section 4.6 of the final EIS due to the nature of the proposed changes of, and overall reduction of impacts attributable to, the Route Amendment. Additionally, RB Pipeline would comply with the measures listed in the final EIS such as clearing outside the migratory bird nesting window (in particular those areas that are most valuable to migratory birds), conducting surveys, removing stick nests prior to construction and outside the nesting season, adopting buffers, and coordinating with the USFWS. If it is not possible to avoid construction during March 15 through September 15, RB Pipeline states it would perform surveys in consultation with the USFWS. Furthermore, the USFWS has approved the Migratory Bird Conservation Plan developed by RB Pipeline.

We received comments from the USFWS related to migratory birds and bald and golden eagles. On August 23, 2023, the USFWS provided additional recommendations specific to the Route Amendment and states that nesting bird surveys should be conducted no more than five days prior to ground disturbing activities or mechanical clearing of brush between March 15 and September 15. The construction buffer between nests and activities should be greater than or equal to 100 feet for songbird nests until the nest is no longer active. Other species, such as water birds or raptors, should have buffers of 500 feet or more. RB Pipeline states it would follow its existing, approved Migratory Bird Conservation Plan (MBCP),¹⁶ which requires RB Pipeline to conduct surveys within seven days of construction between March 1 and August 31. The MBCP

¹⁶ FERC eLibrary Accession No. 20191125-5026.

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also requires RB Pipeline to consult with the USFWS to establish buffers around active nests if construction occurs during the nesting season and nests are found. However, RB Pipeline has also proposed nighttime work associated with the proposed Route Amendment HDD crossings, yet the MBCP states no nighttime work would occur. Therefore, impacts from nighttime work on migratory birds have not been addressed. We also note that the final construction schedule has not yet been fully developed. Given conflicting USFWS recommendations and ongoing discussions between RB Pipeline and the USFWS related to nighttime work, **we recommend:**

- **Prior to construction, RB Pipeline should file with the Secretary of the Commission (Secretary) completed consultations with the USFWS related to impacts on migratory birds, addressing discrepancies (e.g., timing of nest surveys, construction buffers, nighttime work) between the approved Migratory Bird Conservation Plan for the Rio Bravo Pipeline Project and the USFWS' August 23, 2023 comments for the Route Amendment.**

Overall, the qualitative impacts as disclosed in the final EIS on vegetation and wildlife (including migratory birds), are not expected to be changed by the proposed Route Amendment, as the amendment would result in an overall reduction and minor shifting of impacts on vegetation and wildlife from one location to another. RB Pipeline would comply with the avoidance, minimization, and mitigation measures that are fully described in the final EIS and approved in the Remand Order, and with these measures in place, we expect that no significant impacts on vegetation or wildlife (including migratory birds) would result from the Route Amendment.

4.3 Special Status and Protected Species

Section 4.7 of the final EIS describes special status species, the impacts on these species, the regulatory consultation processes (consultation under the Endangered Species Act [ESA]) and the avoidance, minimization, and mitigation measures that RB Pipeline has committed to adopt for the certificated Pipeline Project. These measures and requirements would also apply to the Route Amendment.

Special status species are those species for which state or federal agencies afford an additional level of protection by law, regulation, or policy. Federal agencies are required under Section 7 of the ESA, as amended, to ensure that any actions authorized, funded, or carried out by the agency do not jeopardize the continued existence of a federally listed endangered or threatened species, or result in the destruction or adverse modification of the designated critical habitat of a federally listed species. As the lead federal agency potentially authorizing the Project, the FERC is required to consult with the USFWS and the National Marine Fisheries Service Protected Resources Division to determine whether federally listed endangered or threatened species or designated critical habitat are found near the project area, and to evaluate each proposed action's potential effects to those species or critical habitats.

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For actions involving major construction activities with the potential to affect listed species or designated critical habitat, the lead federal agency must report its findings to the USFWS and/or the National Marine Fisheries Service in a Biological Assessment. If it is determined that the action is likely to adversely affect a listed species, the federal agency must submit a request for formal consultation to comply with Section 7 of the ESA. In response, the Services would issue a Biological Opinion that would indicate if the federal action would jeopardize the continued existence of a listed species, or result in the destruction or adverse modification of designated critical habitat.

This consultation was completed for the Pipeline Project. The USFWS issued a Biological Opinion for the Rio Grande LNG Project (CP16-454) and the original Pipeline Project (CP16-455) on October 1, 2019. As stated in RB Pipeline's June 1, 2022 response to our May 2 and 10, 2022 data requests, RB Pipeline has proposed the USFWS Route Amendment specifically as a conservation measure to reduce impacts on ocelot and jaguarundi and to create agreement between the project description in the Biological Opinion and the certificated route. As our non-federal designee for Section 7 consultation (18 CFR section 380.13), since January 2023, RB Pipeline has been consulting informally with the USFWS on the Route Amendment, and representatives from USFWS and RB Pipeline performed a site visit on February 14, 2023, to assess the potential of the Route Amendment to impact ocelot habitat. On August 23, 2023 the USFWS filed a letter to the record stating it concurred with a determination that the Route Amendment *may affect but is not likely to adversely affect* the ocelot.

On August 23, 2023, the USFWS also provided a list of best management practices for ocelot and jaguarundi, effectively supplementing the BO, which include but are not limited to:

- during construction, a biological monitor with authority to temporarily suspend construction when appropriate best management practices are not being properly implemented will be present on site;
- documentation of observed ocelots and jaguarundi in project and activity areas will be reported to the Service;
- no restoration activities, including monitoring, will occur between November and December to avoid the peak reproductive season of Gulf Coast jaguarundi;
- in order to minimize potential loss of felid prey species, the use of herbicides will be limited to the minimum amount necessary to achieve adequate control of Carrizo cane;
- down-shield lighting to illuminate facility or parking areas and do not shine on surrounding vegetated areas as the ocelot and jaguarundi are usually active at night or at dawn and dusk; and
- protect riparian areas or canals from construction and/or use by maintaining a vegetation buffer, as these are areas that are used as travel corridors for cats.

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RB Pipeline has agreed to follow all of the USFWS-recommended best management practices above. Accordingly, we concur also that the Route Amendment is *not likely to adversely affect* the ocelot and jaguarundi.

The monarch butterfly, a candidate for federal listing, could occur in the area of the approved Pipeline Project, including proposed Route Amendment locations. We note that candidate species do not receive protection under the ESA, and consultation is not required for candidate species. Section 4.6.1.4 of the final EIS addresses pollinator habitat, noting that RB Pipeline consulted with the Natural Resources Conservation Service to develop seed mixes for use during restoration that would enhance the habitat for pollinator species. As also stated in the final EIS, RB Pipeline would incorporate monarch butterfly-friendly species into its revegetation plan, which could provide an energy source for local and migrating pollinator species, thereby minimizing impacts on monarch butterflies. RB Pipeline would apply all such measures to the Route Amendment, as applicable.

The tricolored bat is proposed endangered and could occur in all four areas where pipeline reroutes are proposed. This species can be found within forested habitat roosting in live or recently dead hardwood trees; and winters in caves, abandoned mines, and road-associated culverts (FWS, no date-c). RB Pipeline did not address this species in its application and did not informally conference with the USFWS on this species. Construction and operational impacts on wildlife habitat would decrease due to rerouting and the use of HDD crossing methods in the proposed Route Amendments. Impacts on the species due to noise, vibrations, and removal of roost trees or hibernacula could occur, however. Given that impacts on this species have not been addressed, we **recommend:**

- **RB Pipeline should not begin construction activities until:**
 - a. **RB Pipeline provides information related to tricolored bat in the Route Amendment area including nearby occurrences and suitable habitat, potential impacts on the species, and minimization measures it would take to reduce impacts on the species;**
 - b. **FERC staff receives comments from the USFWS regarding tricolored bat; and**
 - c. **RB Pipeline has received written notification from the Director of OEP, or the Director's designee, that construction or use of mitigation may begin.**

With the implementation of our recommendation for the tri-colored bat; the measures discussed above for ocelot and jaguarundi; and the measures and approvals contained in the final EIS and required by the Remand Order, we conclude that impacts

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on federally listed or proposed species would be sufficiently minimized and not significant.

Impacts on state-sensitive species would typically be similar to those described for general vegetation communities and wildlife populations, as discussed in sections 4.5 and 4.6, respectively; migratory birds, as discussed in section 4.5.3; and aquatic species, as discussed in section 4.6.1.3 of the final EIS. The analysis and commitments presented in the final EIS and approved by the Remand Order remain valid; and all avoidance, minimization, and mitigation measures would continue to be implemented by RB Pipeline. Accordingly, impacts on these species would be minimized and not significant.

5. Land Use, Recreation and Visual Resources

The analysis and conclusions for impacts on land use, recreation, and visual resources presented in the final EIS and further discussed and approved in the Remand Order remain applicable to the Pipeline Project, as modified by the proposed Route Amendment. Land use, recreation, and visual resources are discussed in section 4.8 in the final EIS, which describes the existing land use, impacts on land use, and the avoidance, minimization, and mitigation measures RB Pipeline has committed to adopt for the Pipeline Project. These would also be implemented for the Route Amendment. The Pipeline Project as modified by the proposed Route Amendment would affect the same land uses during construction and operation as described in the final EIS.

5.1 Land Use Impacts

The Route Amendment would affect land classified as shrub/forest land, open land, non-forested wetlands, barren, open water, industrial/commercial, and agricultural. These land use types are defined as follows:

- Shrub/Forest Land – includes shrubland, upland shrub forest, forested wetlands, and scrub-shrub wetlands;
- Open Land – includes grassland;
- Emergent Wetlands – includes palustrine and estuarine emergent wetlands and mud flats;
- Barren – barren land, including dredge spoil;
- Open Water – includes waterbodies, such as streams, lakes, and ponds;
- Industrial/Commercial – includes impervious surfaces such as roads and industrial facilities; and
- Agricultural – includes active or rotated cropland.

Table C-1 (appendix C) summarizes the land use impacts of the Pipeline Project as modified by the proposed Route Amendment. Land use impacts that would change as a result of the Route Amendment, described below, are highlighted in red text within the table.

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RB Pipeline filed updated land use information for staff's review of RB Pipeline's Pipeline Amendment Project in Docket No. CP20-481-000.¹⁷ According to that updated information, the Pipeline Project would temporarily affect about 2,453.2 acres of land, including 515.2 acres of shrub/forest land, 1067.1 acres of open land, 143.5 acres of total wetlands, 11.1 acres of open water, 29.8 acres of barren land, 53.0 acres of industrial/commercial land, and 799.3 acres of agricultural land, and permanently affect 1,284.7 acres of land including 316.6 acres of shrub/forest land, 514.3 acres of open land, 105.3 acres of total wetlands, 10.6 acres of open water, 18.8 acres of barren land, 17.7 acres of industrial/commercial land, and 389.4 acres of agricultural land. Also according to the updated information and as summarized in the Amendment EA, the remaining 1,168.5 acres would return to pre-construction conditions and uses.

The Route Amendment would decrease the construction land impacts on shrub/forest land by 27.3 acres from that summarized in the Amendment EA. Compared to the certificated Pipeline Project, incorporation of the Route Amendment would decrease construction land use impacts by: 30.1 acres for open land and 1.9 acres for total wetlands; and would increase such impacts by 3.1 acres for open water; 18.5 acres for barren land; 32.1 acres for industrial/commercial land; and 128.9 acres for agricultural land.

The Route Amendment would increase permanent operational land impacts of the Pipeline Project by 4.1 acres for open water; 11.5 acres for barren land; 13.3 acres for industrial/commercial land; and 67.8 acres for agricultural land. Conversely, incorporation of the Route Amendment would decrease the permanent operational land impacts of the Pipeline Project by 21.9 acres for shrub/forest land and 2.0 acres for total wetlands.

The Pipeline Project, as modified by the proposed Route Amendment, would have the same general impacts on land use that were previously evaluated, but as described above, would affect an additional 123.3 acres of various land types during construction, and its operational impacts would increase by 42.1 acres. No new land types would be affected by the Route Amendment.

The final EIS specifies that the Pipeline Project requires 108.4 acres of access roads for construction and 12.6 acres for operation.¹⁸ Incorporation of the Route Amendment would result in an additional 12.8 acres of impacts from use of newly identified access roads for the USFWS Route Adjustment (for construction only); use of these roads would not result in additional permanent acreage impacts for operation.

¹⁷ See *Rio Bravo Pipeline Company, LLC Response to May 2, 2022 and May 10, 2022 Environmental Information Request*, June 1, 2022, Docket Nos. CP16-455-000 and CP20-481-000, Attachment 1-2, "Revised FEIS Table 4.8.1-1 Land Use Types Affected by Construction and Operation of the Rio Bravo Pipeline Project," FERC eLibrary Accession No. 20220601-5340.

¹⁸ See final EIS table 4.8.1-1.

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5.2 Recreation Land and Other Designated Areas

The same applicable impacts evaluated in the final EIS and approved by the Remand Order would remain applicable to the Pipeline Project, as modified by the proposed Route Amendment. In general, construction of the adjusted pipe segments included in the Route Amendment would result in impacts on recreational and special interest areas that would be temporary and limited to the period of active construction, which typically would last only several days to several weeks in any one area. For areas in proximity to the Route Amendment's adjusted pipe segments, RB Pipeline would implement the requirements and mitigation included in its Plan and Procedures. Implementation of these requirements would generally minimize, and to some extent mitigate, potential impacts on resources and activities in recreation and special use areas.

5.3 Residential Land

No residences are present within 50 feet of construction workspaces associated with the Route Amendment. A hunting lodge with limited, intermittent occupancy is about 776 feet north of the USFWS Route Adjustment HDD entry at approximate MP 70.45. The Route Amendment would not affect any existing or planned residences or commercial developments. Overall, the impacts analysis in the final EIS, as well as the conclusions in the Remand Order that the Pipeline Project's impacts would not be significant, also apply to the Route Amendment's adjusted pipe segments.

5.4 Visual Resources

The Route Amendment would not result in any different impacts on visual resources as evaluated in the final EIS and further discussed and approved in the Remand Order for the approved Pipeline Project. The Pipeline Project's facilities would be constructed across large parcels of mostly open land used for ranching and grazing, as well as agricultural land. This land also contains numerous easements for oil and gas pipelines and as a result the existing viewshed is characterized, in part, by this existing energy infrastructure. As evaluated in the final EIS, the Pipeline Project's right-of-way vegetation clearing would represent the primary impact on visual resources during construction and operation. RB Pipeline would allow scrub-shrub land and forested wetlands to revert to pre-construction conditions except for the maintained portion of the right-of-way and permanent aboveground facilities, resulting in long-term visual impacts in those areas. Visual impacts associated with the Route Amendment would be consistent with these findings.

Following construction of the Pipeline Project, including the proposed Route Amendment's adjusted pipe segments, all disturbed areas would be restored, and areas outside of the permanent rights-of-way would be returned to pre-construction conditions in compliance with federal, state, and local permits; RB Pipeline's project-specific Plan and Procedures; landowner agreements; and RB Pipeline's lease requirements, with the

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exception of aboveground facility sites. The only aboveground facility that would be modified by the Route Amendment is the meter station as part of the Terminus Adjustment, which would be relocated to align with the current design of the Rio Grande LNG Terminal. The Terminus Adjustment would be implemented inside the footprint of the approved LNG terminal; accordingly, we conclude it would not change the visual impact compared to the currently approved location.

6. Cultural Resources

RB Pipeline completed cultural resources surveys for the Route Amendment, and provided the resulting report (covering the USFWS, North Floodway, and Arroyo Colorado Route Adjustments) to the Texas State Historic Preservation Office (SHPO) and FERC. The survey consisted of intensive pedestrian survey covering approximately 43 acres, augmented by excavation of 69 shovel test units. No archaeological materials, structures, or buildings were identified. However, the North Floodway portion of the Route Amendment intersects the North Floodway, constructed in the 1930s and 1940s, and unevaluated for the National Register of Historic Places. Rio Bravo would avoid the North Floodway by HDD. In addition, portions of the Route Amendment fall within the King Ranch National Register District, but no evidence of cultural resources related to the historic operation of the ranch were encountered. Therefore, RB Pipeline recommended the Route Amendment would have “no adverse effect” on historic properties. On June 17, 2022, the SHPO concurred. We concur also.

Subsequently, RB Pipeline provided a report for minor deviations to the USFWS Route Adjustment. The survey consisted of intensive pedestrian survey covering approximately 78.4 acres, augmented by excavation of 93 shovel test units. No archaeological materials, structures, buildings, or features were identified. However, portions of the surveyed areas cross peripheral sections of the King Ranch National Register District, but the survey identified no resources associated with the ranch. Therefore, RB Pipeline recommended the Route Amendment would have “no effect” on historic properties. On May 11, 2023, the SHPO concurred. We concur also.

The Terminus Adjustment was covered by the original review for the Rio Grande LNG Terminal, as documented in the final EIS (Docket No. CP16-454-000).

Based on the above, the FERC has completed its compliance requirements with Section 106 of the National Historic Preservation Act for the Route Amendment.

RB Pipeline contacted the following federally recognized Native American tribes regarding the proposed Route Amendment, providing a description of each of the proposed adjusted pipe segments, a summary of the cultural resources surveys, and mapping: Alabama-Coushatta Tribe of Texas; Apache Tribe of Oklahoma; Comanche Nation of Oklahoma; Fort Sill Apache Tribe of Oklahoma; Kickapoo Traditional Tribe of Texas; Kickapoo Tribe of Oklahoma; and Tonkawa Tribe of Oklahoma. We sent our Scoping Notice to the same federally recognized tribes. RB Pipeline also contacted the

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state-recognized Lipan Apache Tribe of Texas and Tap Pilam Coahuiltecan Nation. RB Pipeline has not received any responses to date. No responses to our Scoping Notice have been received.

RB Pipeline would implement the Unanticipated Discoveries Plan approved under Docket Nos. CP16-454-000 and CP16-455-000 in the event of a discovery during construction. This would apply also to the locations modified by the Route Amendment.

In response to our Scoping Notice, we received a comment from the SHPO requesting that surveys and National Register of Historic Places evaluations for the Route Amendment be conducted. As described above, cultural resources surveys were completed for the Route Amendment locations, and the SHPO concurred with the results. We also received comments regarding the Route Amendment's potential impacts on sites of concern to, and lack of consultation with, the Carrizo Comecrudo Tribe of Texas, including burial sites, village sites, and sacred sites. The Carrizo Comecrudo Tribe of Texas is a non-profit organization and is neither federally- nor state-recognized, and as such, has been afforded the same opportunities to comment on the Route Amendment as organizations, stakeholders, and the public. As described above, cultural resources surveys were completed, and no burial sites, village sites, or sacred sites were identified, and the SHPO and FERC concur with the survey results. No concerns were identified by the federally recognized Native American tribes contacted.

7. Socioeconomics

The final EIS and Remand Order describe and evaluate the socioeconomic impact of the authorized Pipeline Project. This section below summarizes the conclusions of the Pipeline Project, which remain applicable to this analysis, and focuses on the socioeconomic impact of the four minor route adjustments specific to the Route Amendment.

7.1 Population and Employment

The total population in Cameron and Willacy counties, in which the Pipeline Project is located, is approximately 440,997 people. The previously analyzed, temporary increases in population during construction would be distributed throughout the Pipeline Project area and would not have a permanent impact on any one population. Incorporation of the Route Amendment would not result in any increase in population during construction and operation beyond the evaluation provided in the final EIS and Remand Order; therefore, no housing impacts from the Route Amendment are anticipated.

7.2 Housing

As described in the final EIS, the average and peak non-local workforce for the Pipeline Project would occupy about 2.8 and 3.5 percent of the currently available

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housing. This occupancy indicates sufficient lodging units would be available to accommodate the non-resident workers, resulting in minor and temporary impacts on the availability of housing units. Following construction, RB Pipeline anticipates a permanent workforce of up to 20 workers for daily operations of the Pipeline Project. This would represent a permanent but negligible impact on the local housing market and housing availability. Construction and operation of the Route Amendment would not appreciably add to housing impacts as already evaluated, and does not change our previous conclusions.

7.3 Public Services

There would be no increase in demand for public services during construction and operation of the Route Amendment beyond the evaluation provided in the final EIS and Remand Order; therefore, no additional public services impacts from the Route Amendment are anticipated.

7.4 Construction Expenditures and Tax Collections

As described in the final EIS, the new jobs and workers in the area would include increased revenue for local business owners and generating new tax revenue in local communities. Incorporating the Route Amendment would not appreciably change the tax revenue estimations already evaluated, and does not change our previous conclusions.

7.5 Traffic and Transportation

As described in the final EIS and Amendment EA, the total number of workers would be spread out along the Pipeline Project, with mitigation that would be implemented should traffic congestion occur. As required by environmental condition no. 33 of the 2019 Order (and by reference in the Remand Order), RB Pipeline is required to file with FERC traffic mitigation procedures developed in consultation with applicable transportation authorities to maintain a Level of Service of C or better on roadways proposed for use during construction of the Pipeline Project. This requirement would be inclusive of the Route Amendment locations.

Our previous analysis concluded that construction of the Pipeline Project would result in minor and temporary impacts on local traffic. Given the low number of operational personnel for the pipeline facilities, impacts on traffic or roadways resulting from operation of the pipeline facilities would be negligible. As the Route Amendment's adjusted pipe segments would cross marine waterways via HDD, no impacts on marine transportation would result from construction or operation of the pipeline facilities. Incorporating the Route Amendment would not appreciably change the overall project impacts on traffic and transportation, or our previous conclusions.

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7.6 Environmental Justice

According to the EPA, environmental justice “is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies” (EPA 2023). In addition, “meaningful involvement” means:

- people would have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- the public’s contribution can influence the regulatory agency’s decision;
- community concerns would be considered in the decision-making process; and
- decision makers would seek out and facilitate the involvement of those potentially affected (EPA 2023).

In conducting NEPA reviews of proposed natural gas projects, the Commission follows the instruction of Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* and Executive Order 14096, *Revitalizing Our Nation’s Commitment to Environmental Justice for All*, which directs federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority and low-income populations (i.e., environmental justice communities).¹⁹ EO 14008, *Tackling the Climate Crisis at Home and Abroad*, also directs agencies to develop “programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.”²⁰ The term “environmental justice community” includes disadvantaged communities that have been historically marginalized and overburdened by pollution.²¹ Environmental justice communities include, but may not be limited to, minority populations, low-income populations, or Indigenous peoples.²²

Commission staff used the Federal Interagency Working Group on Environmental Justice and NEPA Committee’s publication, *Promising Practices for EJ Methodologies in NEPA Reviews (Promising Practices)* (EPA 2016b), which provides methodologies for conducting environmental justice analyses throughout the NEPA process for this Route

¹⁹ EO 12898, 59 *Federal Register* 7629, at 7629, 7632 (February 11, 1994).

²⁰ EO 14008, 86 *Federal Register* 7619, at 7629 (January 27, 2021)

²¹ *Ibid.*

²² See EPA (2022), <https://www.epa.gov/environmentaljustice/ej-2020-glossary>.

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Amendment. Commission staff's use of these methodologies is described throughout this section.

Commission staff also used the EPA's Environmental Justice Screening and Mapping Tool (EJScreen) as an initial step to gather information regarding minority and/or low-income populations, potential environmental quality issues, environmental and demographic indicators, and other important factors specific to the Route Amendment, similar to how we evaluated the Pipeline Project. The EPA recommends that screening tools, such as EJScreen, be used for a "screening-level" look and a useful first step in understanding or highlighting locations that may require further review.

Meaningful Engagement and Community Involvement

CEQ's *Environmental Justice: Guidance Under the National Environmental Policy Act (CEQ Environmental Justice Guidance)* (CEQ 1997) and *Promising Practices* recommend that federal agencies provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities, and improving the accessibility of public meetings, crucial documents, and notices.²³ These resources also recommend using adaptive approaches to overcome linguistic, institutional, cultural, economic, historical, or other potential barriers to effective participation in federal agencies' decision-making processes. Additionally, Section 8 of EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, strongly encourages independent agencies to "consult with members of communities that have been historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, federal policies and programs."²⁴

There have been opportunities for public involvement during the Commission's environmental review processes. RB Pipeline identified minority and low-income populations in Cameron and Willacy Counties, Texas. RB Pipeline subsequently notified local and state public officials of the Route Amendment filing from July 20, 2023 to July 22, 2023. On August 4, 2023, RB Pipeline mailed the FERC Notice of Application to potentially affected landowners along the Route Amendment.

Additionally, RB Pipeline published legal notices notifying the public of the Route Amendment application in the Raymondville Chronicle and Willacy County News on July 26 and August 2, 2023; the Valley Morning Star and Brownsville Herald on July 26 and August 2, 2023; and The Kingsville Record on July 27 and August 2, 2023. RB Pipeline also placed copies of the application and related resource reports on file in a number of local libraries²⁵ on or before July 24, 2023. RB Pipeline has committed to

²³ 1997 CEQ Guidance at section 4.

²⁴ EO 13985, 86 *Federal Register* at 7009 (January 20, 2021)

²⁵ Reber Memorial Library, Raymondville, Texas; Brownsville Public Library (Main Branch), Brownsville, Texas; Ethel L. Whipple Memorial Library, Los Fresnos, Texas; and Harlingen Public Library, Harlingen, Texas.

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implementing a community engagement plan that includes good faith efforts to transparently engage and inform stakeholders through conducting open houses at key milestones, frequent communications via fact sheets, small meetings, letters, posters, newsletters, and social media, as well as continuing to update the project webpage.

FERC issued a Notice of Application and a Scoping Notice for the Route Amendment, which were published in the Federal Register on August 1, 2023, and August 23, 2023, respectively. The scoping notices were mailed to the parties on FERC's environmental mailing list, which included federal and state resource agencies, elected officials, Native American Tribes, potentially affected landowners, local libraries and newspapers, and other stakeholders who had indicated an interest in the Route Amendment. Commission staff also included retail establishments, community centers, and community groups in communities with environmental justice concerns on the mailing list. Issuance of the Notice of Application opened a 21-day intervention and commenting period that expired on August 22, 2023, and the Scoping Notice opened a 30-day formal scoping period that expired on September 22, 2023.

All documents that form the administrative record for these proceedings are available to the public electronically through the internet on the FERC's website (www.ferc.gov). Anyone may comment to FERC about the Route Amendment, either in writing or electronically. All substantive environmental comments received prior to issuance of this EA have been addressed within this document.

In 2021, the Commission established the Office of Public Participation (OPP) to support meaningful public engagement and participation in Commission proceedings. The OPP provides members of the public, including environmental justice communities, landowners, tribal citizens, and consumer advocates, with general assistance in FERC proceedings—including navigating Commission processes and activities relating to projects. For assistance with interventions, comments, requests for rehearing, or other filings, and for information about any applicable deadlines for such filings, members of the public are encouraged to contact the OPP directly at 202-502-6595 or OPP@ferc.gov for further information. OPP staff can generally help the public more fully participate in Commission proceedings, but OPP does not act in a decisional capacity on the merits of any particular case.

We recognize that not everyone has internet access or is able to file electronic comments. The Notice of Application was physically mailed to all affected landowners and the Notice of Scoping was physically mailed to all parties on the environmental mailing list. Furthermore, FERC staff has consistently emphasized in meetings with the public that all comments, whether spoken or delivered in person at meetings, mailed in, or submitted electronically, receive equal weight by FERC staff for consideration in the EA.

We received two comments during the Route Amendment scoping period specific to environmental justice concerns. These comments include concerns about consultation

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with the Carrizo Comecrudo Tribe (see EA section B.6) and the language barrier due to a primarily Spanish speaking community. To identify and communicate with non-English speaking groups and individuals, RB Pipeline engaged a local consultant to assess the need for Spanish-language materials. Based on that assessment, RB Pipeline provided Route Amendment materials in both English and Spanish. As with the original Pipeline Project analyzed in the final EIS, RB Pipeline made documents and notices about the Route Amendment available to the public in both English and Spanish. In addition, RB Pipeline published all legal notices in Spanish and made landowner letters available in Spanish.

Identification of Environmental Justice Communities

According to the *CEQ Environmental Justice Guidance* and *Promising Practices*, minority populations are those groups that include American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Following the recommendations set forth in *Promising Practices*, FERC uses **the 50 percent** and the **meaningfully greater analysis** methods to identify minority populations. Using this methodology, minority populations are defined in this EA where either (1) the aggregate minority population of the census block groups within the affected area exceeds 50 percent, or (2) the aggregate minority population in the block group affected is 10 percent higher than the aggregate minority population percentage in the reference population (in this case, the county). The recommendations also direct low-income populations to be identified based on the annual statistical poverty thresholds from the U.S. Census Bureau. Using *Promising Practices'* **low-income threshold criteria** method, low-income populations are identified as block groups where the percent of low-income population in the identified block group is equal to or greater than that of the county. Here, we selected Cameron and Willacy Counties, Texas as the comparable reference communities for the Route Amendment to ensure that affected environmental justice communities are properly identified.

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Table 5, below, identifies the minority populations by race and ethnicity and low-income populations within the state and county, along with census block groups²⁶ within a 1-mile radius of the meter station realignment and crossed by the Route Amendment areas of the Pipeline Project right-of-way. We believe this 1-mile geographic scope is sufficiently broad to assess visual impacts, construction air emissions, and construction noise impacts on environmental justice communities. To ensure we are using the most recent available data, we use the U.S. Census American Community Survey (ACS) 2017-2021 5-year Estimates Table File #B03002 as the source for race and ethnicity data and File #B17017 as the source for poverty data at the census block group level.²⁷ According to the 2023 U.S. Census Bureau information, minority and low-income populations exist within the Route Amendment areas, as discussed further below and depicted in figures 2 through 5, below.

As presented in table 5, there are minority and low-income communities within the Route Amendment areas. For the proposed Route Amendment, six Census block groups out of seven Census block groups within the geographic scope of the Route Amendment are considered communities with environmental justice concerns. One census block group was identified as a community with environmental justice concerns based on the minority threshold alone (Census Tract 101.01 Block Group 2). Five census block groups were identified as communities with environmental justice concerns based both the minority and low-income threshold (Census Tract 127, Block Group 2; and Census Tract 142.02, Block Group 2 in Cameron County and Census Tract 9506, Block Group 1, Census Tract 9507, Block Group 1, and Census Tract 9507, Block Group 2 for Willacy County).

²⁶ Census block groups are statistical divisions of census tracts that generally contain between 600 and 3,000 people. U.S. Census Bureau, 2023, Glossary: Block Group, accessed September 10, 2023, https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_4.

²⁷ U.S. Census Bureau, American Community Survey 2023 ACS 5-Year Estimates Detailed Tables, File #B17017, Poverty Status in the Past 12 Months by Household Type by Age of Householder, <https://data.census.gov/cedsci/table?q=B17017>; File #B03002 Hispanic or Latino Origin By Race, <https://data.census.gov/cedsci/table?q=B03002>.

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**Table 5
Minority Populations By Races and Ethnicity and Low-Income Population in the Route Amendment Area**

RACE AND ETHNICITY											LOW-INCOME
State/County/ Census Tract/Block Group	Total Population	% White Alone Not Hispanic	% Black or African American	% American Indian and Alaska Native	% Asian	% Native Hawaiian and Other Pacific Islander	% Some Other Race	% Two or More Races	% Hispanic or Latino Origin (of any race)	% Minority ^a	% Household Below Poverty Level ^b
Texas	28,862,581	40.7	11.8	0.2	5.0	0.1	0.3	2.3	39.8	59.3	13.3
Cameron County, Texas	420,554	8.5	0.4	0.1	0.7	0.0	0.1	0.3	90.0	91.5	25.3
Willacy County, Texas	20,423	10.3	0.6	0.0	0.0	0.0	0.0	0.8	88.2	89.7	29.4
Arroyo Colorado Route Adjustment (Cameron County)											
Block Group 2, Census Tract 101.01	1,582	16.7	0.0	1.0	0.0	0.0	0.0	0.0	82.3	83.3	2.4
Block Group 1, Census Tract 101.02	501	79.8	0.0	0.0	2.4	0.0	0.0	5.0	12.8	20.2	21.5
Terminus Adjustment-Pipeline (Cameron County)											
Block Group 2, Census Tract 127	611	4.9	0.0	0.0	0.0	0.0	0.0	0.0	95.1	95.1	29.8
Block Group 2, Census Tract 142.02 ^c	1,103	0.0	0.0	0.0	0.0	0.0	7.8	0.0	92.2	100.0	44.9
Terminus Adjustment and Meter Station Realignment (Cameron County)											
Block Group 2, Census Tract 142.02 ^c	1,103	0.0	0.0	0.0	0.0	0.0	7.8	0.0	92.2	100.0	44.9
North Floodway Route Adjustment (Willacy County)											
Block Group 1, Census Tract 9506	899	23.1	0.0	0.0	0.0	0.0	0.0	0.0	76.9	76.9	36.9
Block Group 1, Census Tract 9507	1,070	27.9	0.0	0.0	0.0	0.0	0.0	0.0	72.1	72.1	47.5
USFWS Route Adjustment (Willacy County)											
Block Group 1, Census Tract 9507	1,070	27.9	0.0	0.0	0.0	0.0	0.0	0.0	72.1	72.1	47.5
Block Group 2, Census Tract 9507	971	0.8	0.0	0.0	0.0	0.0	0.0	0.0	99.2	99.2	39.2
North Floodway Route Adjustment (Willacy County)											
Block Group 1, Census Tract 9507	1,070	27.9	0.0	0.0	0.0	0.0	0.0	0.0	72.1	72.1	47.5

Sources:

Race and Ethnicity Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates, Hispanic or Latino Origin by Race. Table No. B03002: Hispanic or Latino Origin by Race. Accessed on September 10, 2023. Available online at: <https://data.census.gov/table?q=b03002&tid=ACSDT1Y2021.B03002>

Below Poverty Level Source: U.S. Census Bureau, 2017-2021 ACS Poverty Status in the Past 12 Months by Household Type by Age of Householder. Table No. B17017: Poverty Status in the Past 12 Months by Household Type by Age of Householder. Accessed on September 10, 2023.

Available online at: <https://data.census.gov/cedsci/table?q=B17017%3A%20POVERTY%20STATUS%20IN%20THE%20PAST%2012%20MONTHS%20BY%20HOUSEHOLD%20TYPE%20BY%20AGE%20OF%20HOUSEHOLDER&tid=ACSDT5Y2020.B17017>

Notes:

a/ Percent total minority is calculated by subtracting the percent of White Alone, non-Hispanic from 100 percent.

b/ Minority or low-income populations that qualify as environmental justice communities based on the presence of minority or low-income populations exceeding established thresholds are indicated in **red bold** type and **gray shading**.

c/ Includes meter stations. -

B. ENVIRONMENTAL ANALYSIS

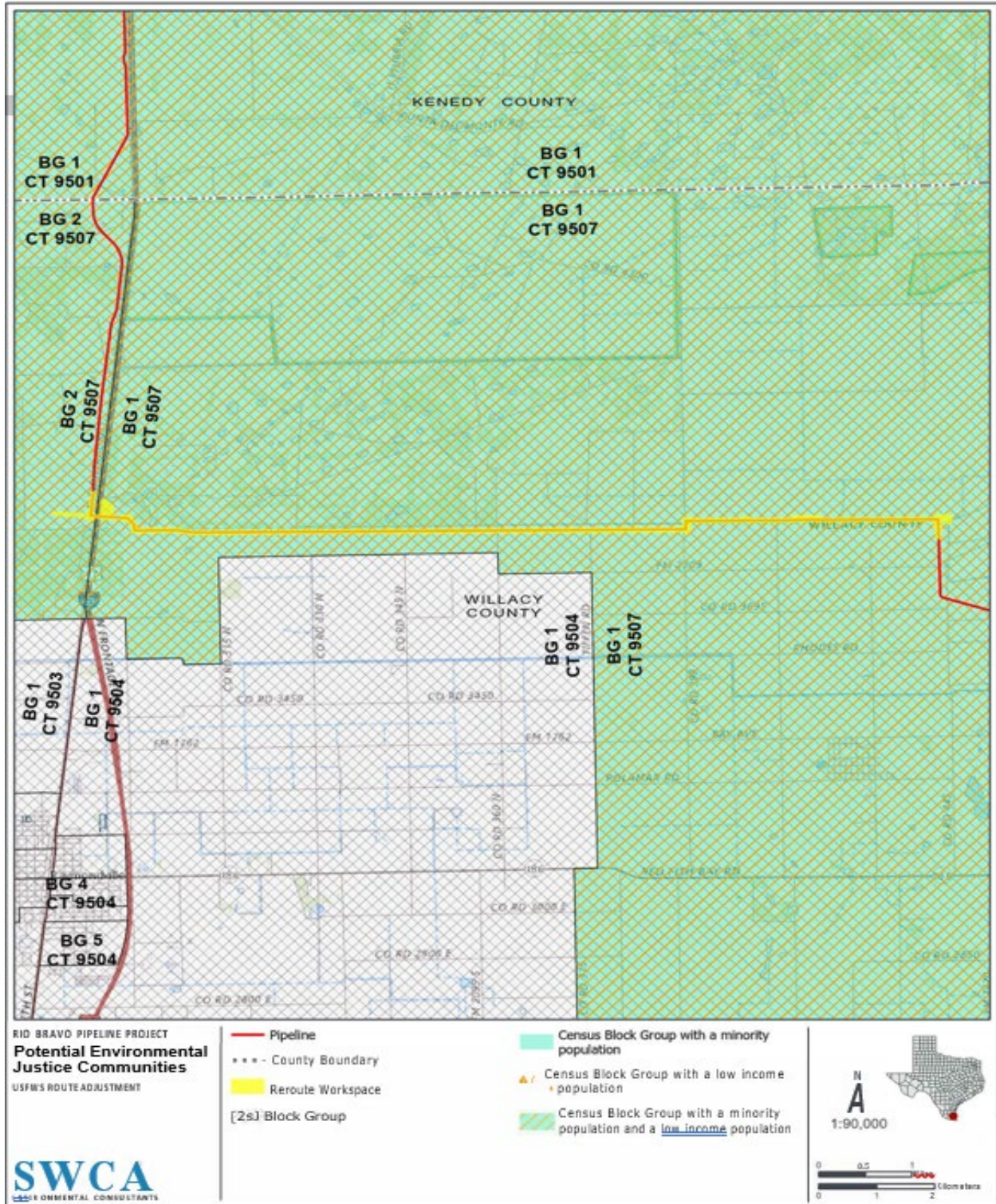


Figure 2: Environmental Justice Communities Within the Route Amendment Area USFWS Route Adjustment

B. ENVIRONMENTAL ANALYSIS

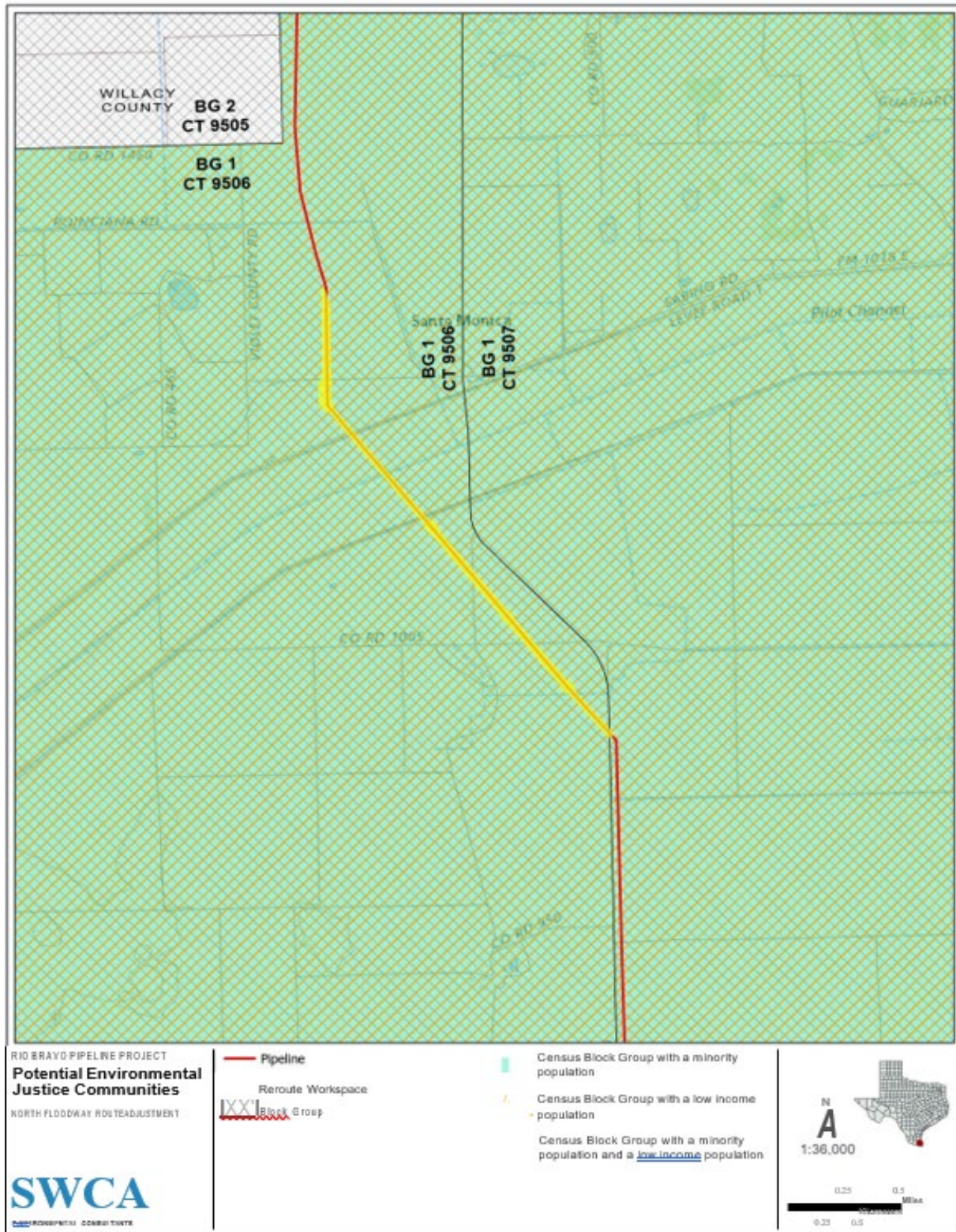


Figure 3: Environmental Justice Communities Within the Route Amendment Area North Floodway Route Adjustment

B. ENVIRONMENTAL ANALYSIS

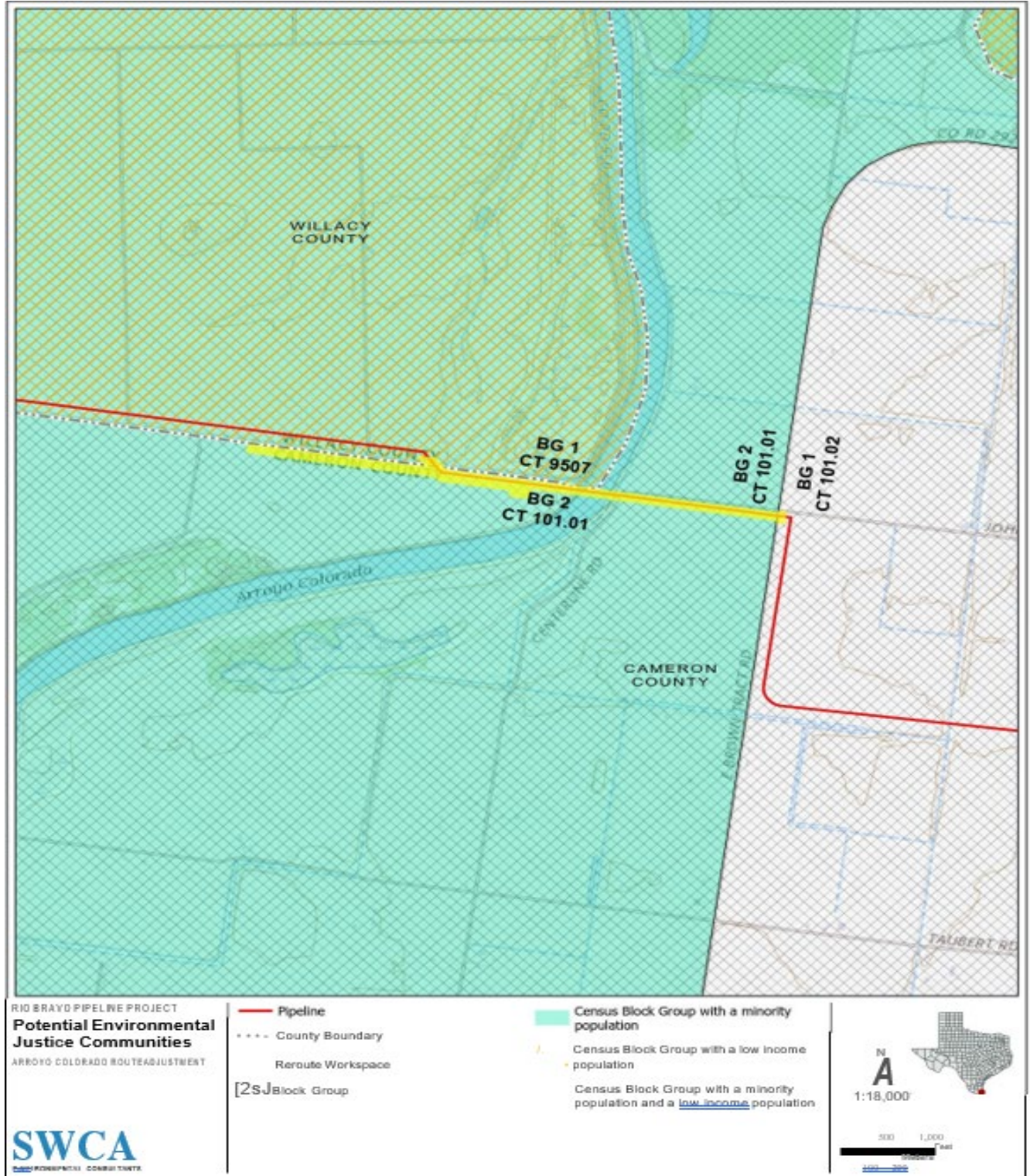


Figure 4: Environmental Justice Communities Within the Route Amendment Area Arroyo Colorado Route Adjustment

B. ENVIRONMENTAL ANALYSIS

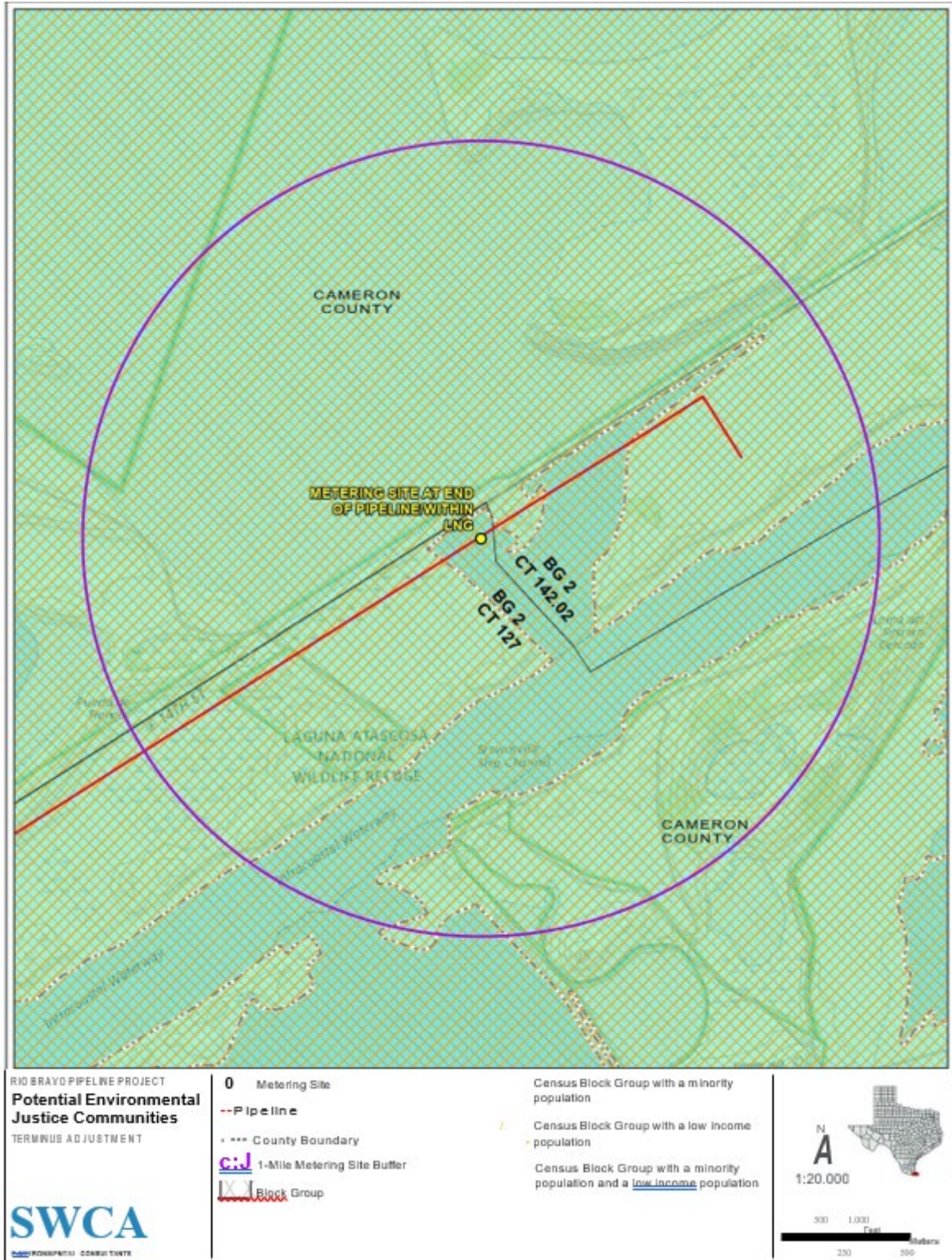


Figure 5: Environmental Justice Communities Within the Route Amendment Area Terminus Adjustment and Meter Station Realignment

B. ENVIRONMENTAL ANALYSIS

Impacts on Environmental Justice Communities

As previously described, *Promising Practices* provides methodologies for conducting environmental justice analyses. Issues considered in the evaluation of environmental justice include human health or environmental hazards; the natural physical environment; and associated social, economic, and cultural factors. Consistent with *Promising Practices* and EO 12898, we reviewed the proposed Route Amendment to determine if its resulting impacts would be disproportionately high and adverse on minority and low-income populations and also whether impacts would be significant.²⁸

Promising Practices provides that agencies can consider any of a number of conditions for determining whether an action would cause a disproportionately high and adverse impact.²⁹ The presence of any of these factors could indicate a potential disproportionate and adverse impact. For this proposed Route Amendment, a disproportionate and adverse effect on an environmental justice community means the adverse effect is predominantly borne by such population. Relevant considerations include the location of Route Amendment facilities and human health and environmental impacts on identified environmental justice communities, including direct, indirect, and cumulative impacts.

Project work within environmental justice communities includes the Arroyo Colorado Route Adjustment (MP 99.7 to 100.5) in Block Group 2, Census Tract 101.01 and Block Group 1, Census Tract 101.02, Block Group 1, Census Tract 9507; the Terminus Adjustment (MP 135.7) in Block Group 2, Census Tract 127 and Block Group 2, Census Tract 142.02; the meter station (MP 135.7) in Block Group 2, Census Tract 142.02; the North Floodway Route Adjustment (MP 92.4 and MP 93.0) in Block Group 1, Census Tract 9506 and Block Group 1, Census Tract 9507; the USFWS Route Adjustment (MP 69.8 and MP 79.4) in Block Group 1, Census Tract 9507 and Block Group 2, Census Tract 9507.

Impacts on the natural and human environment from construction and operation of the proposed Route Amendment's adjusted pipe segments are identified and discussed throughout this document. Factors that could affect these communities include visual resources, socioeconomics, road traffic, noise, and air quality impacts from construction and, to a lesser extent, operation. Potentially adverse environmental effects on surrounding communities associated with the proposed Route Amendment, including communities with environmental justice concerns, would be minimized and/or mitigated.

²⁸ See *Promising Practices* at 33 (stating that “an agency may determine that impacts are disproportionately high and adverse, but not significant within the meaning of NEPA” and in other circumstances “an agency may determine that an impact is both disproportionately high and adverse and significant with the meaning of NEPA”).

²⁹ See *Promising Practices* at 45–46 (explaining that there are various approaches to determining whether an impact would cause a disproportionately high and adverse impact). We recognize that the CEQ and EPA are in the process of updating their guidance regarding environmental justice, and we would review and incorporate that anticipated guidance in our future analysis, as appropriate.

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In general, the magnitude and intensity of the impacts would be greater for individuals and residences closest to the proposed Route Amendment's facilities and would diminish with distance. These impacts are addressed in greater detail in the associated sections of this EA. Environmental justice concerns are not present for other resource areas such as geology, soils, groundwater, surface water, wetlands, vegetation, wildlife, fisheries, land use, or cultural resources due to the minimal overall impact the proposed Route Amendment's adjusted pipe segments would have on these resources.

Visual Resources

The meter station relocation would not result in any additional visual impacts on environmental justice communities beyond what was analyzed in the Remand Order. The relocation of the meter station associated with the Terminus Adjustment would result in a permanent change in the existing viewshed for nearby visual receptors, including those from environmental justice communities. However, the relocated meter station would be part of the terminal viewshed and not a predominant feature on the Rio Grande LNG Terminal site. Further, no residences are within 3.8 miles of the relocated meter station. Therefore, visual impacts on environmental justice communities from the meter station relocation would be less than significant.

The pipeline segments of the Route Amendment would not result in any additional visual impacts on environmental justice communities beyond what was analyzed in the Remand Order. The visual impacts on environmental justice communities would shift slightly as the routes are adjusted. The Terminus Adjustment crosses mostly uplands; the USFWS Route Adjustment crosses mostly active agricultural land; the North Floodway Route Adjustment crosses active agricultural land; and the Arroyo Colorado Route Adjustment crosses mostly active agricultural land and the Arroyo Colorado. Temporary visual impacts would occur during construction of the Route Amendment's adjusted pipe segments including vehicle and equipment movement, vegetation clearing and grading, trench and foundation excavation, and spoil piles. Permanent visual impacts may occur along the pipeline from removal of vegetation and periodic vegetation clearing within the permanent right-of way to allow for visual pipeline inspection. The closest visual receptor to any of the route amendments is about 800 feet from the USFWS Route Adjustment. Visual impacts would not be prominent from this or greater distances. Therefore, visual impacts on environmental justice communities from the Route Amendment would be less than significant.

Socioeconomics

The Route Amendment would not result in any additional socioeconomic impacts on environmental justice communities beyond what was analyzed in the Remand Order. The Route Amendment would result in a negligible increase in the local population. The Pipeline Project would require a temporary influx of workers/contractors into the area and could increase the demand for community services, such as schools, police

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enforcement, and medical care as well as housing. Socioeconomic impacts on environmental justice from the Pipeline Project as modified by the Route Amendment would be less than significant.

Road Traffic

The Pipeline Project would not result in any additional traffic impacts on environmental justice communities beyond what was analyzed in the Remand Order. The Pipeline Project may temporarily affect roadway traffic due to increased vehicle traffic associated with construction workforce commutes and the delivery of equipment and materials to the construction work area. RB Pipeline would also file traffic mitigation procedures, developed in consultation with applicable transportation authorities, to maintain a Level of Service of C or better on roadways proposed for use during construction of the pipeline project. Only a small number of permanent workers would be hired to operate the Pipeline Project facilities and no measurable traffic increase would take place during operation. Incorporation of the Route Amendment would not appreciably change these impact levels. Therefore, we conclude that traffic impacts on environmental justice communities associated with the construction and operation of the Route Amendment would be less than significant.

Noise

The meter station relocation would not result in any additional noise impacts on environmental justice communities beyond what was analyzed in the Remand Order. The relocation of the meter station associated with the Route Amendment would be about 3.8 miles from the nearest noise sensitive area (NSA). Noise from the meter station would not be perceptible at this distance. Noise impacts on environmental justice communities from relocation of the meter station would be less than significant.

The adjusted routes associated with Route Amendment would not result in any additional noise impacts on environmental justice communities beyond what was analyzed in the Remand Order for the Pipeline Project. Sound from construction activities near environmental justice communities along the pipeline system routes could be either intermittent or continuous, but would occur over a limited duration at any one location; with construction near residences limited to the shortest timeframe possible to safely install the facilities. There are no residences within 50 feet of construction workspaces associated with the Route Amendment. The nearest potential noise receptor to any of the pipeline route adjustments is a hunting lodge that has limited, intermittent occupancy and is about 800 feet north of the entry site for the HDD crossing for the USFWS Route Adjustment. The route adjustments would not result in any change to operational noise as evaluated in the Remand Order. Therefore, no construction or operational noise impacts on residences within environmental justice communities would be anticipated from the Route Amendment, as any noise impacts would not likely be perceptible at these distances.

B. ENVIRONMENTAL ANALYSIS

Air Quality

Construction emissions from the Route Amendment would not result in any additional air quality impacts on environmental justice communities beyond what was analyzed in the Remand Order for the Pipeline Project. Construction emissions associated with the meter station relocation and route adjustments would be short-term and localized to the construction area. Construction of the Pipeline Project incorporating the Route Amendment would result in a temporary increase in emissions due to the combustion of fuel in vehicles and equipment, and dust generated from general construction activities. We conclude that environmental justice communities would not experience significant air quality impacts during construction of the Route Amendment facilities.

Operation emissions from the Route Amendment would not result in any additional air quality impacts on environmental justice communities beyond what was analyzed in the Remand Order for the Pipeline Project. Operation emissions associated with the Pipeline Project would be due to fugitive emissions and natural gas venting and would result in minimal emissions of criteria pollutants. Operation emissions associated with these facilities would not cause or significantly contribute to an exceedance of the National Ambient Air Quality Standards. Incorporation of the Route Amendment would not appreciably change these impacts. Therefore, we conclude that operation emissions associated with the meter station realignment and adjusted routes would not result in a significant impact on air quality to environmental justice communities.

Determination of Disproportionate and Adverse Impacts on Environmental Justice Communities

As evaluated in this EA, the Route Amendment would have a range of impacts on the environment and on individuals, including minority and low-income populations living in the vicinity of the construction and operation activities. As highlighted in table 5, above, six Census tract block groups within the geographic scope of the Project are communities with potential environmental justice concerns. Project work within the identified communities with environmental justice concerns includes the modification of the route design for the USFWS Route Adjustment (Block Group 1, Census Tract 9507 and Block Group 2, Census Tract 9507), Arroyo Colorado Route Adjustment (Block Group 1, Census Tract 9507) and the North Floodway Route Adjustment (Block Group 1, Census Tract 9506 and Block Group 1, Census Tract 9507) in Willacy County, Texas; the Arroyo Colorado Route Adjustment (Block Group 2, Census Tract 101.01 and Block Group 1, Census Tract 101.02), the Terminus Adjustment (Block Group 2, Census Tract 127 and Block Group 2, Census Tract 142.02) and meter station relocation (Block Group 2, Census Tract 142.02) in Cameron County, Texas.

Environmental Justice impacts associated with the Pipeline Project, incorporating the Route Amendment, would be disproportionate and adverse as they would be predominately borne by communities with environmental justice concerns. However,

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project-related impacts associated with visual resources, socioeconomic, traffic, noise, and air quality would be less than significant.

8. Noise

Noise is generally defined as sound with intensity greater than the ambient or background sound pressure level. Construction and operation of the Route Amendment would affect overall noise levels in areas surrounding the right-of-way for each of the proposed Route Amendment's adjusted pipeline segments.

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 pm and 7:00 am). The A-weighted scale is used to assess noise impacts because human hearing is less sensitive to low and high frequencies than mid-range frequencies.

The human ear's threshold of perception for noise change is considered to be 3 dBA; 6 dBA is clearly noticeable to the human ear, and 10 dBA is perceived as a doubling of noise (Bies and Hansen 1988).

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 project-related noise impacts at NSAs, which are defined as homes, schools, churches, or any location where people reside or gather.

8.2 Construction Noise Impacts and Mitigation

The Terminus Adjustment would move the HDD entry locations at approximate MP 135.4 on the approved Pipeline Project route to a point nearer the Rio Grande LNG Terminal, and shorten the length of the HDD, with the exit point at approximate MP

B. ENVIRONMENTAL ANALYSIS

135.7. However, no NSAs are within 0.5 mile of the modified HDD entry or exit points, and therefore no changes in impacts on any nearby NSAs would result from these modifications.

The USFWS Route Adjustment would install a HDD from approximate MP 70.07 to MP 70.47 (the U.S. Highway 77 HDD). RB Pipeline estimates that drilling associated with this HDD would take place over an approximately 60-day period, and require 24-hour drilling at certain phases including pull-back activities and for hydrostatic testing. No NSAs are within 0.5 mile of either the entry or exit points of this HDD. However, a hunting lodge, not identified as an NSA, is approximately 776 feet north of the HDD's entry point. To assess the potential noise impact of the HDD's entry point on this hunting lodge, RB Pipeline performed a noise impact assessment. The noise impact assessment estimates that the L_{dn} noise contribution from the HDD at this hunting lodge would be approximately 60.7 dBA if no additional noise mitigation measures are employed. With RB Pipeline's commitment to install a 15-foot-high noise barrier having a sound transmission class rating of 25 on the north side of this drill site as recommended by the noise impact assessment, the mitigated L_{dn} noise contribution would fall to approximately 51.7 dBA, under the FERC's L_{dn} criterion of 55 dBA. This noise contribution would increase existing ambient noise levels at the hunting lodge by approximately 9.2 dBA.

8.3 Operation Noise Impacts

Changes in operational noise associated with the Pipeline Project attributable to the Route Amendment would be limited to the relocation of a meter station within the Rio Grande LNG Terminal. The nearest NSA to this meter station, as identified in the final EIS, is approximately 3.8 miles south-southeast of the meter station site, and this distance would not appreciably change due to the proposed relocation of the meter station. Therefore, the conclusions within the final EIS and Amendment EA regarding the potential for this meter station to contribute noise at nearby NSAs³⁰ would not change as a result of this relocation.

9. Reliability and Safety

The discussions and analysis for impacts to reliability and safety in the final EIS and Amendment EA remain applicable to the Route Amendment. The Route Amendment does not include any routing changes that alter the class locations or fall within any high consequence areas. RB Pipeline would continue to implement the safety measures discussed in the final EIS to ensure safe construction and operation of the pipeline facilities included in the Route Amendment.

³⁰ See final EIS at ES-14. "No NSAs are within 1 mile of the stand-alone meter stations proposed for the Project; therefore operation of these facilities is not expected to result in perceptible noise impacts at any NSAs."

B. ENVIRONMENTAL ANALYSIS

RB Pipeline's adoption of the Alternative MAOP included as part of the Route Amendment would be in compliance with the PHMSA safety standards specified in 49 CFR 192, which include specific design, construction, operations, and maintenance provisions set forth in 49 CFR 192.112, 192.328, and 192.620. Staff's conclusions in the final EIS and Amendment EA that the Rio Bravo Pipeline Project would represent a slight increase in risk to the safety of the nearby public, that the risk would be considered low,³¹ and that the Pipeline Project would not have a significant impact on public safety,³² remain applicable and valid for the proposed Route Amendment.

Some commentors expressed general concerns about the Pipeline Project's safety, with one commentor citing the permit status table, which indicates that RB Pipeline's consultation with PHMSA is still ongoing, and concluding that this consultation is not complete. We note that PHMSA does not issue permit authorizations, but rather acts on an open-ended, ongoing consultation basis to assist the pipeline operator in its efforts to comply with its standards throughout construction and operation of the pipeline facilities. The Pipeline Project as modified by the Route Amendment would be subject to the same safety design considerations as discussed in the final EIS³³ and Amendment EA.³⁴ The pipeline and aboveground facilities associated with the Pipeline Project as modified by the Route Amendment must be designed, constructed, operated, and maintained in accordance with the PHMSA Minimum Federal Safety Standards in 49 CFR 192.

One commentor expressed concerns about RB Pipeline's proposed use of an alternative MAOP formula for the Pipeline Project's design. The alternative MAOP is consistent with PHMSA's regulations in 49 CFR 192.112, 192.328, and 192.620 that specify certain design factors that must be met for pipelines. As stated in section A.4, above, as part of its compliance with PHMSA's alternative MAOP design factor requirements, RB Pipeline does not propose to increase the Pipeline Project's currently authorized MAOP of 1,825 pounds per square inch gauge. RB Pipeline would continue to be responsible for complying with all of PHMSA's design, construction, operation, and maintenance requirements for the Pipeline Project as specified in 49 CFR 192.

10. Cumulative Impacts

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. CEQ guidance states that an adequate cumulative effects analysis may be conducted by focusing on the current aggregate

³¹ Amendment EA at 41.

³² Final EIS at ES-15.

³³ See Final EIS section 4.12.2.

³⁴ See Amendment EA section B.10.

B. ENVIRONMENTAL ANALYSIS

effects of past actions without delving into the historical details of individual past actions (CEQ 1997).

As discussed in section A.2, RB Pipeline states that the Route Amendment is being proposed to minimize impacts on potential ocelot habitat, address USFWS concerns regarding impacts on this habitat and species, address agency and landowner concerns, avoid recently constructed infrastructure, meet the technical requirements of the IBWC, and align the project with the currently approved design of the LNG Terminal to which it will interconnect. Overall, the authorized Pipeline Project as amended by the Route Amendment would result in approximately 123.3 acres in additional impacts than previously estimated and evaluated in the final EIS and Amendment EA (an increase of approximately 5.0 percent). We identified no new past, present, or reasonably foreseeable projects within the geographic scope of the proposed Route Amendment locations since issuance of the April 21, 2023 Remand Order. Therefore, with the exception of how the Terminal Adjustment would potentially change impacts on environmental justice communities, discussed in section B.10.2, below, the cumulative impacts associated with this proposed Route Amendment, and our conclusions on significance of those impacts, do not change our previous conclusions on cumulative impacts for the Pipeline Project.

10.1 Other Actions identified within the Geographic Scope

Construction of the Rio Grande LNG Terminal, adjacent to the proposed Terminus Adjustment, is currently underway.³⁵ No projects have been identified within the geographic scope of the USFWS Route Adjustment, North Floodway Route Adjustment, Arroyo Colorado Route Adjustment; therefore, these routes are not discussed further in this section.

10.2 Potential Cumulative Impacts of the Proposed Project

Environmental Justice

The Rio Grande LNG Terminal is within the same geographic scope for cumulative impacts for environmental justice as the Terminus Adjustment and the Meter Station Relocation. The Terminus Adjustment and Meter Station Relocation would not contribute to cumulative impacts beyond what was analyzed in the Remand Order for visual, socioeconomic, traffic, air quality and noise impacts. The only perceptible change in impacts would be associated with visual impacts associated with the meter station relocation. The meter station would be relocated 0.6 mile east from the authorized meter station site within the Rio Grande LNG Terminal and would contribute to cumulative

³⁵ See Revised Amendment EA Table 11 “Past, Present, and Reasonably Foreseeable Projects Considered in the Cumulative Impacts Analysis for the Modified Compressor Station 1 and Proposed Route Adjustments,” Attachment 19-1 to RB Pipeline 9/27/2023 response to staff’s 9/7/2023 Environmental Information Request, FERC eLibrary Accession No. 20230927-5109.

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impacts on the viewshed.³⁶ However, the relocated meter station would be part of the Rio Grande LNG Terminal's viewshed and would not be a prominent feature on the terminal's site. Further, the closest residence to the meter station relocation is 3.8 miles away. Therefore, we conclude the Route Amendment's contribution to cumulative visual impacts on environmental justice communities associated with relocation of the meter station would be less than significant.

³⁶ The meter station's relocated position relative to the certificated Pipeline Project is found in the alignment sheets filed in FERC eLibrary Accession No. 20231010-5370, Attachment 1-1, Revised Appendix 1.B.

C. ALTERNATIVES

C. ALTERNATIVES

In accordance with NEPA and Commission policy, we considered the scope of alternatives appropriate for the proposed Route Amendment. The proposed route adjustments generally follow the approved pipeline route, with only slight offsets. For example, while the Route Amendment would deviate from the approved Pipeline Project route by as much as 0.4 mile (around 2,000 feet) as part of the USFWS Route Adjustment, the majority of the Route Amendment would offset the new route by no more than approximately 250 to 750 feet from the approved route. Based on our analysis in section B of this EA, which did not identify any significant impacts or otherwise identify resource impacts warranting the development of alternative routes, and the fact that we received no comments regarding specific alternatives to the facilities proposed for the Route Amendment, we identified only one alternative to the Route Amendment: the no-action alternative.

1. No-Action Alternative

Under the no-action alternative, the Route Amendment would not be approved. If the Commission selects the no-action alternative, RB Pipeline would still be authorized to construct the Pipeline Project as previously approved by the 2019 Order and Remand Order. Thus, although the environmental impacts associated with the proposed Route Amendment would not occur under the no-action alternative, environmental impacts would still result as described in the final EIS, Amendment EA and Remand Order, with the associated additional impacts on ocelot habitat, wetlands, forest lands, and prime farmland soils. Therefore, we do not recommend the no-action alternative. The Commission, in its Order for the Route Amendment, will evaluate the need for the Route Amendment and could choose the no-action alternative.

2. Alternatives Conclusion

We identified no system, route, or other alternative that would provide a significant environmental advantage over the Pipeline Project's adjusted pipe segments comprising the proposed Route Amendment as described in section A.4, above. Therefore, we conclude that the proposed Route Amendment, with our recommended mitigation measures, is the preferred alternative to meet the purpose and need stated in section A.2, above.

D. CONCLUSIONS AND RECOMMENDATIONS

D. CONCLUSIONS AND RECOMMENDATIONS

Based upon the analysis in this EA, we have determined that if RB Pipeline constructs and operates the proposed facilities in accordance with its application, supplements, and staff's recommended mitigation measures below, approval of the Route Amendment would not constitute a major federal action significantly affecting the quality of the human environment.

We recommend that the Commission Order contain a finding of no significant impact and that the following mitigation measures be included as conditions to any Certificate the Commission may issue. In addition, all applicable conditions of the Commission's November 22, 2019 *Order Granting Authorizations Under Sections 3 and 7 of the Natural Gas Act* and April 21, 2023 *Order on Remand and Amending Section 7 Certificate* specific to Docket No. CP16-455-000 (not repeated here) apply to the amended facilities.

1. RB Pipeline 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. RB Pipeline 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 the 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.

D. CONCLUSIONS AND RECOMMENDATIONS

3. RB Pipeline shall continue to comply with environmental conditions set forth in Appendix A of the Commission's November 22, 2019 *Order Granting Authorizations Under Sections 3 and 7 of the Natural Gas Act* specific to Docket No. CP16-455-000 and Appendix A of the Commission's April 21, 2023 *Order on Remand and Amending Section 7 Certificate* specific to Docket No. CP20-481-000.
4. **Prior to construction**, RB Pipeline shall file with the Secretary completed consultations with the USFWS related to impacts on migratory birds, addressing discrepancies (e.g., timing of nest surveys, construction buffers, nighttime work) between the approved Migratory Bird Conservation Plan for the Rio Bravo Pipeline Project and the USFWS' August 23, 2023 comments for the Route Amendment.
5. RB Pipeline shall **not begin** construction activities **until**:
 - a. RB Pipeline provides information related to tricolored bat in the Route Amendment area including nearby occurrences and suitable habitat, potential impacts on the species, and minimization measures it would take to reduce impacts on the species;
 - b. FERC staff receives comments from the USFWS regarding tricolored bat; and
 - c. RB Pipeline has received written notification from the Director of OEP, or the Director's designee, that construction or use of mitigation may begin.

E. REFERENCES

E. REFERENCES

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Appendix A

Consultations, Permits, and Approvals




Table A-1 Consultations, Permits, and Approvals applicable to the Route Amendment <u>a/</u>		
Permit/Approval	Administering Agency (Facility)	Applicable Facility / Status
Federal		
Certificate of Public Convenience and Necessity	Federal Energy Regulatory Commission	Application filed July 20, 2023 / Pending
Endangered Species Act, Section 7 Fish and Wildlife Coordination Act Consultation	U.S. Fish and Wildlife Service (USFWS)	<p>Final Biological Opinion issued October 1, 2019; Final Biological Opinion Amended Terms and Conditions issued October 8, 2019; Final Biological Opinion Addendum issued January 9, 2020.</p> <p>On August 23, 2023 the USFWS filed a letter to the record stating it concurred with a determination that the Route Amendment <i>may affect, but is not likely to adversely affect</i> the ocelot.</p> <p>Section 7 ESA Consultation is complete for all species except the the tri-colored bat, which was proposed for listing by the USFWS on September 14, 2022.</p>
State - Texas		
Section 106 of the National Historic Preservation Act Consultation	Texas State Historic Preservation Office (SHPO)	<p>Results of 2020 cultural resources survey of the route adjustments submitted on May 20, 2022. The SHPO provided concurrence on June 17, 2022.</p> <p>Results of 2023 cultural resources survey of three minor deviations to the USFWS Route Adjustment submitted on April 17, 2023. The SHPO provided concurrence on May 11, 2023.</p> <p>NHPA Section 106 consultation is complete.</p>
a/ A comprehensive list of permits and approvals for the overall Rio Bravo Pipeline Project is found in Appendix 1.C of RB Pipeline's application for the Route Amendment, FERC Accession No. 20230720-5128.		

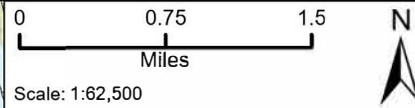
Appendix B

Rio Bravo Pipeline Route Amendment Maps



Legend

-  USFWS Route Adjustment
-  Certificated Pipeline Route
-  County Boundary



Scale: 1:62,500

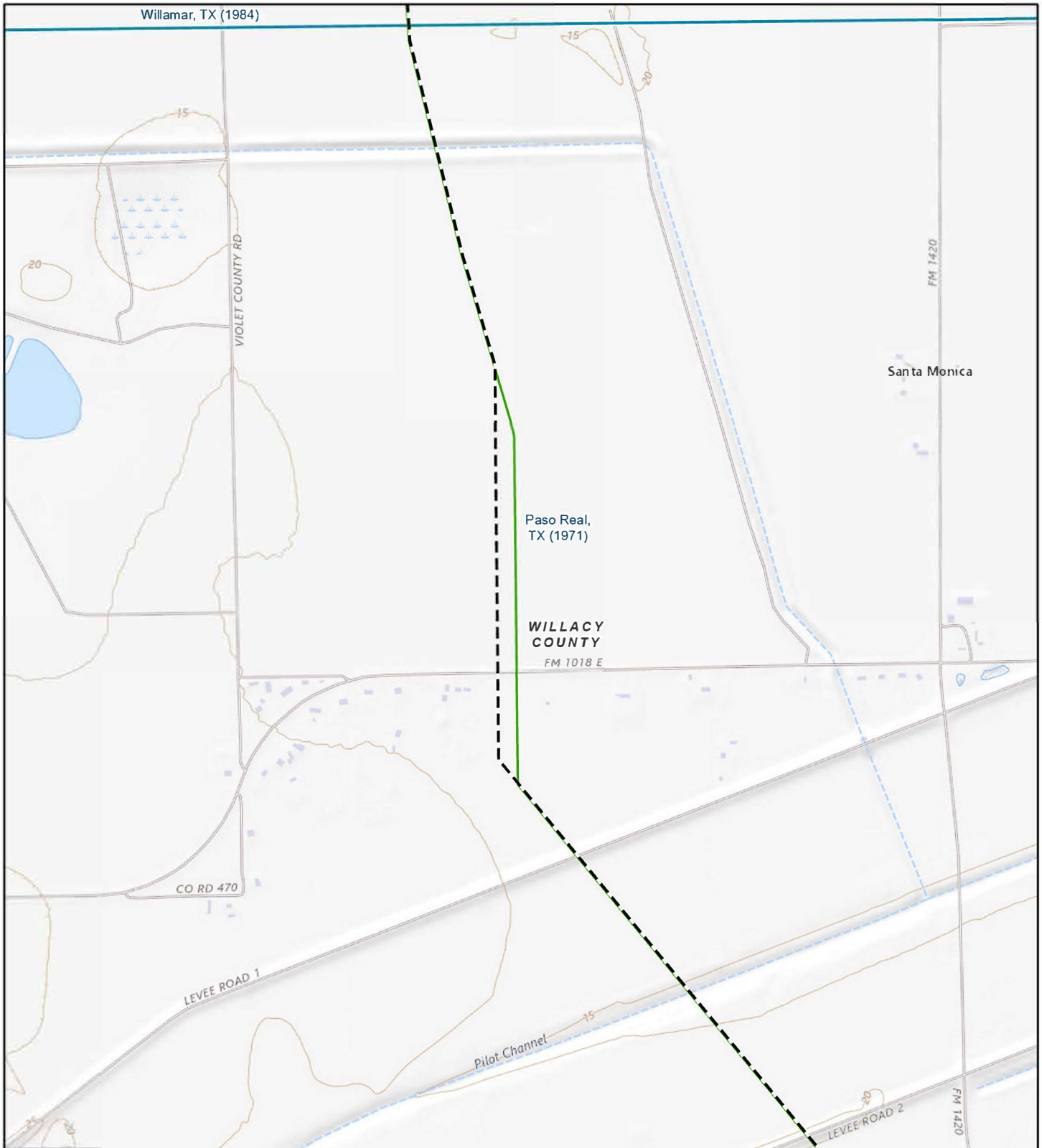
Service Layer Credits:
USGS 7.5' Topographic Map
Esri Online Service (© 2013 National Geographic Society)

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Rio Bravo Pipeline Company, LLC

Figure 1A - July 2023
Rio Bravo Pipeline Project
USFWS Route Adjustment



Legend

- North Floodway Route Adjustment
- Certificated Pipeline Route
- County Boundary
- USGS 7.5 min. Quadrangle

0 0.1 0.2
Miles

N

Scale: 1:12,000

Service Layer Credits:
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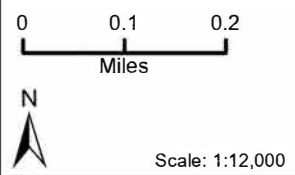
Rev. Date: 2/14/2023

ENBRIDGE
Rio Bravo Pipeline Company, LLC

Figure 1B - July 2023
Rio Bravo Pipeline Project
North Floodway Route Adjustment



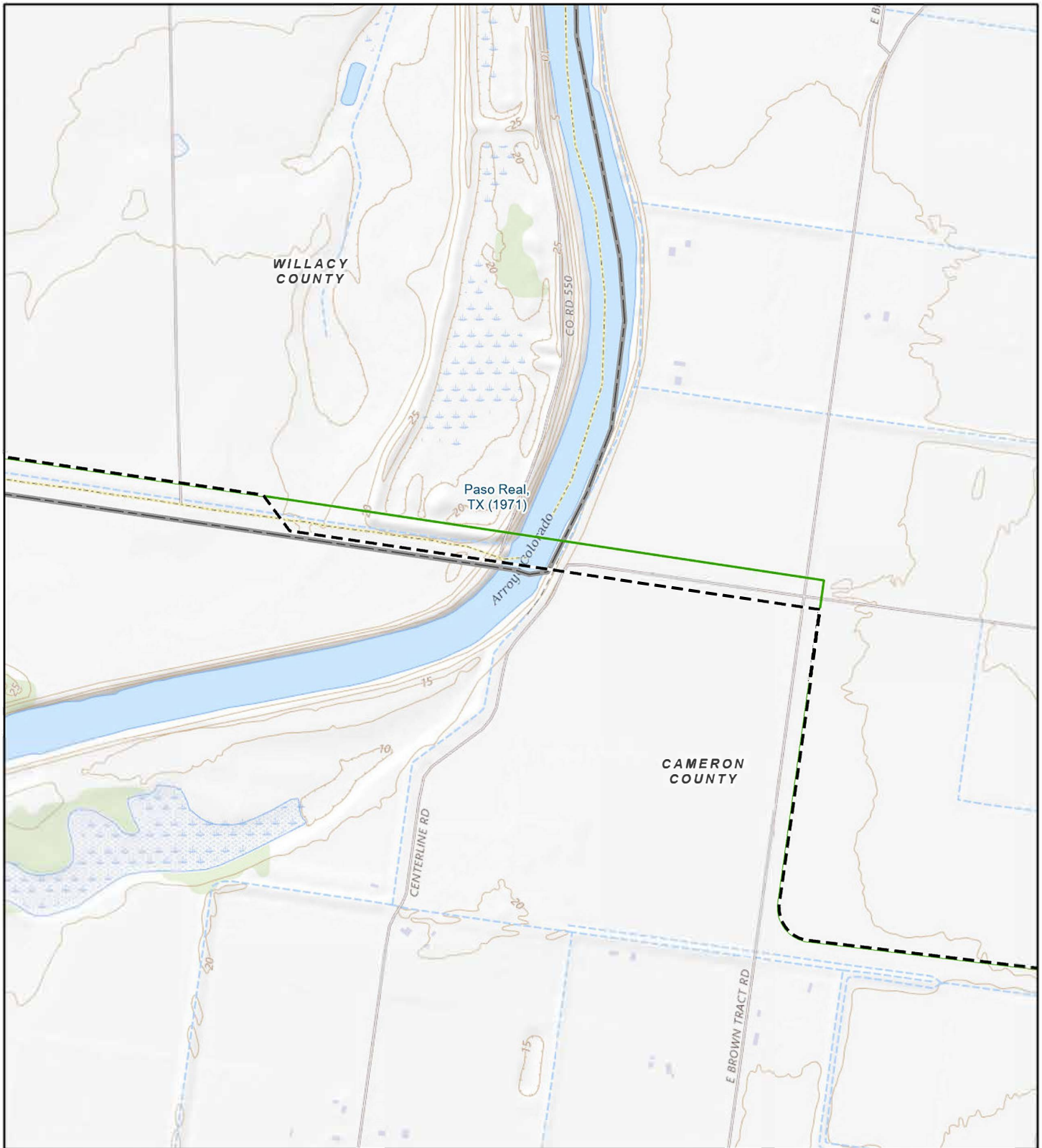
- Legend**
- - - North Floodway Route Adjustment
 - Certified Pipeline Route
 - ▭ County Boundary



Service Layer Credits:
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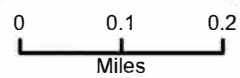
Rio Bravo Pipeline Company, LLC

Figure 1B - July 2023
Rio Bravo Pipeline Project
 North Floodway Route Adjustment



Legend

- Arroyo Colorado Route Adjustment
- Certificated Pipeline Route
- County Boundary
- USGS 7.5 min. Quadrangle



Scale: 1:12,000

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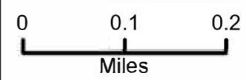
Rio Bravo Pipeline Company, LLC

Figure 1C - July 2023
Rio Bravo Pipeline Project
 Arroyo Colorado Route Adjustment



Legend

- - - Arroyo Colorado Route Adjustment
- Certificated Pipeline Route
- ▭ County Boundary



Scale: 1:12,000

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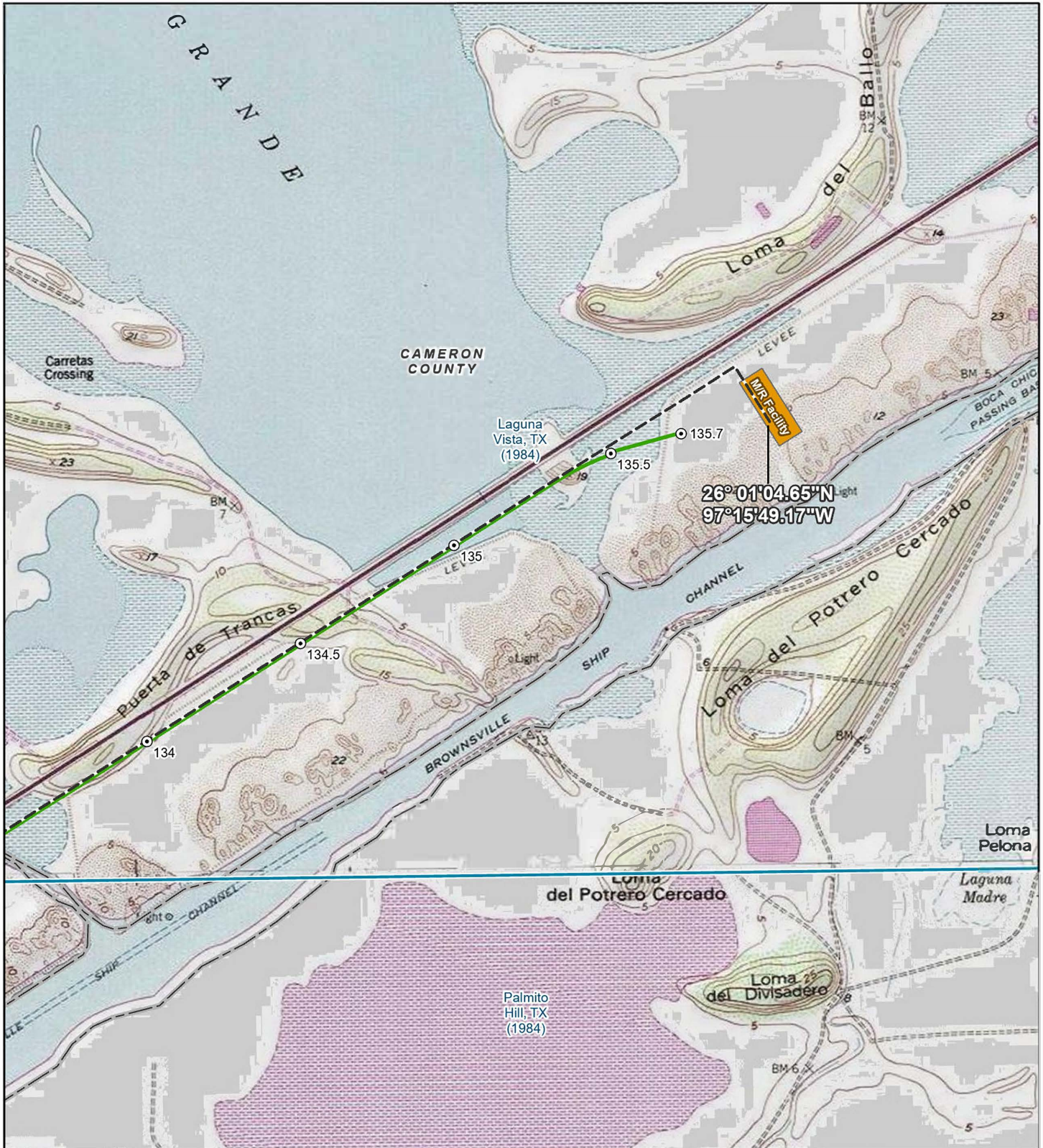
Rev. Date: 2/14/2023



Rio Bravo Pipeline Company, LLC

Figure 1C - July 2023
Rio Bravo Pipeline Project

Arroyo Colorado
Route Adjustment



Legend

- ⊙ Milepost
- Certified Pipeline Route
- - - Proposed Pipeline Route
- Permanent Easement
- County Boundary
- USGS 7.5 min. Quadrangle

0 0.15 0.3
Miles

Scale: 1:24,000

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ENBRIDGE
Rio Bravo Pipeline Company, LLC

Figure 1D - July 2023
Rio Bravo Pipeline Project
Terminus Adjustment



Legend

- Milepost
- Certified Pipeline Route
- - - Proposed Pipeline Route
- Permanent Easement
- County Boundary

0 0.15 0.3
Miles

N

Scale: 1:24,000

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ENBRIDGE
Rio Bravo Pipeline Company, LLC

Figure 1D- July 2023
Rio Bravo Pipeline Project
Terminus Adjustment

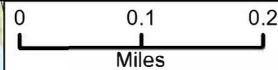


<p>Legend</p> <ul style="list-style-type: none">--- 2022 USFWS Route Adjustment— 2023 USFWS Route Adjustment		<p>0 0.75 1.5 Miles</p> <p>Scale: 1:62,500</p> <p>Service Layer Credits: Earthstar Geographics, Esri, HERE, Garmin, NGA, USGS, NPS</p> <p>Rev. Date: 7/17/2023</p>	<p>Rio Bravo Pipeline Company, LLC</p> <p>Figure 10A - July 2023 Rio Bravo Pipeline Project USFWS Route Adjustment Minor Route Deviation Overview</p>
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Legend

- 2022 USFWS Route Adjustment
- 2023 USFWS Route Adjustment



Scale: 1:10,000



Service Layer Credits:
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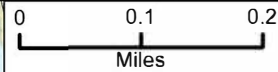
Figure 10B - July 2023
Rio Bravo Pipeline Project

USFWS Route Adjustment
Minor Route Deviation 1



Legend

- - - 2022 USFWS Route Adjustment
- 2023 USFWS Route Adjustment



Scale: 1:10,000



Service Layer Credits:
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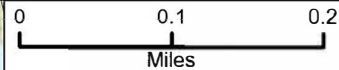
**Figure 10C - July 2023
Rio Bravo Pipeline Project**

USFWS Route Adjustment
Minor Route Deviation 2



Legend

- - - 2022 USFWS Route Adjustment
- 2023 USFWS Route Adjustment



Scale: 1:8,000



Service Layer Credits:
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Rev. Date: 7/17/2023



Figure 10D - July 2023
Rio Bravo Pipeline Project

USFWS Route Adjustment
Minor Route Deviation 3

Appendix C

**Land Use Types affected by Construction and
Operation of the Rio Bravo Pipeline Project
as modified by the proposed Route Amendment**

Table C-1 Land Use Types Affected by Construction and Operation of the Rio Bravo Pipeline Project as modified by the proposed Route Amendment (acres)																
Facilities	Shrub/ Forest Land		Open Land		Total Wetlands		Open Water		Barren		Industrial / Commercial		Agricultural Land		Total	
	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op
PIPELINE FACILITIES – PIPELINE SYSTEM and ATWS																
Header System and Pipeline 1																
Header System ROW	22.0	12.0	8.8	4.9	0.0	0.0	<0.1	<0.1	0.1	0.1	0.1	0.1	0.0	0.0	39.9	22.1
Header System ATWS	1.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Amended Pipeline 1 ROW	402.0	254.5	815.7	499.5	129.6	105.3	10.9	10.6	19.5	14.0	21.9	15.9	620.6	389.1	2,020.2	1,288.9
Amended Pipeline 1 ATWS	27.8	0.0	10.6	0.0	5.5	0.0	0.0	0.0	3.7	0.0	11.5	0.0	37.8	0.0	96.7	0.0
Amended Header System – Pipeline 1 Subtotal	453.0	266.5	836.0	504.4	135.1	105.3	10.9	10.6	23.3	14.1	33.5	16.0	658.4	389.1	2,150.2	1,306.0
Pipeline 2																
Amended Pipeline 2 ROW	0.0	0.0	1,137.8	698.6	129.6	105.3	10.9	10.6	19.5	14.0	21.9	15.9	620.6	389.1	1,940.3	1,233.5
Amended Pipeline 2 ATWS	0.0	0.0	27.7	0.0	5.5	0.0	0.0	0.0	3.7	0.0	11.5	0.0	37.8	0.0	86.2	0.0
Amended Pipeline 2 Subtotal	0.0	0.0	1,165.5	698.6	135.1	105.3	10.9	10.6	23.2	14.0	33.4	15.9	658.4	389.1	2,026.5	1,233.5
Access Roads																
Header System access roads	0.2	0.2	0.7	0.6	0.0	0.0	<0.1	<0.1	4.7	4.7	3.1	1.6	0.0	0.0	8.7	7.1
Pipelines 1 and 2 access roads	3.6	0.6	76.5	4.8	8.3	0.0	0.2	0.0	1.8	0.0	16.4	0.1	5.0	0.0	111.8	5.5
Access Roads Subtotal	3.8	0.8	77.2	5.4	8.3	0.0	0.2	<0.1	6.5	4.7	19.5	1.7	5.0	0.0	120.5	12.6
Contractor / Pipe Yards																
Contractor / Pipe Yard 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.6	0.0	135.6	0.0
Contractor / Pipe Yard 2	9.1	0.0	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.5	0.0
Contractor / Pipe Yard 3	0.0	0.0	136.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	136.1	0.0
Contractor / Pipe Yards Subtotal	9.1	0.0	152.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.6	0.0	297.2	0.0

Table C-1 Contd. Land Use Types Affected by Construction and Operation of the Rio Bravo Pipeline Project as modified by the proposed Route Amendment (acres)																	
Facilities	Shrub/ Forest Land		Open Land		Total Wetlands		Open Water		Barren		Industrial / Commercial		Agricultural Land		Total		
	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	Con	Op	
ABOVEGROUND FACILITIES																	
Aboveground Facilities – Header System																	
Metering Site HS-1	1.9	1.9	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1
Metering Site HS-2	1.2	1.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
Metering Site HS-3	1.1	1.1	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
Metering Site HS-4	1.3	1.3	<0.1	<0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
Subtotal	5.6	5.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	6.9
Aboveground Facilities - Pipelines 1 and 2 a/																	
Amended Compressor Station 1	43.5	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.5	43.5
MLVs	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.6	0.6	
Amended Subtotals	43.7	43.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	44.1	44.1	
Amended Aboveground Facilities Subtotal	49.3	49.3	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	51.0	51.0	
Amended Header System and Pipeline 1 Total b/	515.2	316.6	1,067.1	514.3	143.4	105.3	11.1	10.6	29.8	18.8	53.0	17.7	799.3	389.4	2,618.9	1,372.7	
Amended Pipeline 2 c/	62.0	49.9	1,395.9	704.8	143.4	105.3	11.1	10.6	25.0	14.0	49.8	16.0	799.3	389.4	2,486.5	1,290.0	
Amended Pipeline System Total d/	515.2	316.6	1,067.1	514.3	143.4	105.3	11.1	10.6	29.8	18.8	53.0	17.7	799.3	389.4	2,618.9	1,372.7	
Note: Table in the final EIS is referred to as: "Table 4.8.1-1 Land Use Types Affected by Construction and Operation of the Rio Grande LNG Project (in acres)." Text in red indicates land use acreages that would change as a result of the Route Amendment. a/ These facilities would be disturbed during the construction of Pipeline 1. Although use and modification of these facilities would occur during the construction of Pipeline 2, no additional operational footprint would be required. b/ All impacts associated with construction of the Header System and Pipeline 1, including right-of-way, ATWS, contractor/pipe yards, access roads, and aboveground facilities. c/ All impacts associated with construction of Pipeline 2, including right-of-way, ATWS, contractor/pipe yards, access roads, and aboveground facilities, which were previously disturbed during construction of Pipeline 1 (acreages associated with the Header System and its components) are excluded since amended pipelines 1 and 2 are located in parallel and in the same right-of-way. Shrub/forest land restored following construction of Pipeline 1 would revegetate to open land and emergent wetland conditions prior to construction of Pipeline 2, rather than the pre-construction vegetation cover. Therefore, construction of Pipeline 2 would have a greater impact on open land and emergent wetlands than Pipeline 1. d/ Construction and operation impacts for the portions of the Terminus Adjustment on lands within the fence line of the Rio Grande LNG Terminal and disturbed as part of Terminal construction are as described in the final EIS.																	

Document Content(s)

CP23-519-000_Environmental_Assessment.pdf1