Federal Energy Regulatory Commission

Office of Energy Projects

January 2016

Trans-Pecos Pipeline, LLC **Docket No. CP15-500-000**

Presidio Border Crossing Project

Environmental Assessment

Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas 1
Trans-Pecos Pipeline, LLC
Presidio Border Crossing Project
Docket No. CP15-500-000

TO THE PARTY ADDRESSED:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared this Environmental Assessment (EA) of the Presidio Border Crossing Project (Project) proposed by Trans-Pecos Pipeline, LLC (Trans-Pecos) in the above-referenced docket. Trans-Pecos requests authorization to construct, operate, and maintain a new natural gas pipeline in Presidio County, Texas.

The proposed Presidio Border Crossing Project would involve construction of approximately 1,093 feet of FERC-jurisdictional 42-inch-diameter pipeline, installed beneath the Rio Grande River. The new pipeline would transport natural gas to a new delivery interconnect with pipeline facilities owned by an affiliate of Trans-Pecos at the United States - Mexico border for expanding electric generation and industrial market needs in Mexico.

The EA assesses the potential environmental effects of the construction and operation of the Project in accordance with the requirements of the National Environmental Policy Act of 1969. The FERC staff concludes that approval of the proposed Project, with appropriate mitigating measures, would not constitute a major federal action significantly affecting the quality of the human environment.

The FERC staff mailed copies 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 Project area. In addition, the EA is available for public viewing on the FERC's website (www.ferc.gov) using the eLibrary link.

A limited number of copies of the EA are also available for distribution and public inspection at:

Federal Energy Regulatory Commission
Public Reference Room
888 First Street, NE, Room 2A
Washington, DC 20426
(202) 502-8371

Any person wishing to comment on the EA may do so. Your comments should focus on the 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 your comments are properly recorded and considered prior to a Commission decision on the proposal, it is important that the FERC receives your comments in Washington, DC on or before **February 3, 2016.**

For your convenience, there are three methods you can use to submit your comments to the Commission. In all instances, please reference the project docket number (CP15-500-000) with your submission. The Commission encourages electronic filing of comments and has dedicated eFiling expert staff available to assist you at 202-502-8258 or efiling@ferc.gov.

(1) You may file your comments electronically by using the eComment feature, which is located on the Commission's website at www.ferc.gov under the link to Documents and Filings. An eComment is an easy method for interested persons to submit text-only comments on a project;

(2) You may file your comments electronically by using the eFiling feature, which is located on the Commission's website at www.ferc.gov under the link to Documents and Filings. 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 will be asked to select the type of filing you are making. A comment on a particular project is considered a "Comment on a Filing"; or

(3) You may file a paper copy of your comments at the following address:

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

Although your comments will be considered by the Commission, simply filing comments will not serve to make the commentor a party to the proceeding. Any person seeking to become a party to the proceeding must file a motion to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedures (Title 18 Code of Federal Regulations Part 385.214).[1] Only intervenors have the right to seek rehearing of the Commission's decision. Affected landowners and parties with environmental concerns may be granted intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding that would not be adequately represented by any other parties. **You do not need intervenor status to have your comments considered.**

Additional information about the Project is available from the Commission's Office of External Affairs, at **1-866-208-FERC (3372)** or on the FERC website (www.ferc.gov) using the eLibrary link. Click on the eLibrary link, click on "General Search," and enter the docket number excluding the last three digits in the Docket Number field (i.e., CP15-500). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at FercOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, contact 1-202-502-8659. The eLibrary link also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

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

[1] Interventions may also be filed electronically via the Internet in lieu of paper. See the previous discussion on filing comments electronically.

ENVIRONMENTAL ASSESSMENT
PRESIDIO BORDER CROSSING PROJECT

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TECHNICAL ACRONYMS AND ABBREVIATIONS	
Border Patrol	U.S. Customs and Border Protection, Border Patrol Division
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
Commission	Federal Energy Regulatory Commission
DOT	United States Department of Transportation
EA	environmental assessment
EI	environmental inspector
EPA	U.S. Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
FWS	U.S. Fish and Wildlife Service
GHG	greenhouse gas
HDD	horizontal directional drilling
IBWC	International Boundary and Water Commission
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NGA	Natural Gas Act
NOI	Notice of Intent to Prepare an Environmental Assessment for the Proposed Trans-Pecos Border Crossing Project and Request for Comments on Environmental Issues
NPS	National Park Service
OEP	Office of Energy Projects
PCA	Priority Conservation Area
PGA	peak ground acceleration
Plan	Upland Erosion Control, Revegetation, & Maintenance Plan
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Project	Trans-Pecos Border Crossing Project
Trans-Pecos	Trans-Pecos Pipeline, LLC
TDS	Total Dissolved Solids
RCT	Railroad Commission of Texas
Secretary	Secretary of the Commission
SO_2	sulfur dioxide
SPCC Plan	Spill Prevention, Containment, and Countermeasure Plan
TCEQ	Texas Commission on Environmental Quality

TECHNICAL ACRONYMS AND ABBREVIATIONS	
TPWD	Texas Parks and Wildlife Department
USGS	U.S. Geologic Survey
VOCs	Volatile Organic Compounds

A. PROPOSED ACTION

On May 28, 2015, Trans-Pecos Pipeline, LLC (Trans-Pecos) filed an application in Docket No. CP15-500-000 pursuant to section 3 of the Natural Gas Act (NGA) and Part 153 of the Federal Energy Regulatory Commission's (FERC or Commission) regulations, for an order authorizing construction of new border crossing natural gas pipeline facilities, and for the issuance of a Presidential Permit for those facilities. The proposed facilities have a design capacity to export up to 1.3 billion cubic feet per day of natural gas at the International Boundary between the United States and Mexico.

Trans-Pecos proposes to construct its new international border crossing in Presidio County, Texas. The Presidio Border Crossing Project (Project) would consist of the construction of approximately 1,093 feet of FERC-jurisdictional 42-inch-diameter pipeline, installed beneath the Rio Grande River to the United States - Mexico border. The new pipeline would transport natural gas to a new delivery interconnect with pipeline facilities owned by an affiliate of Trans-Pecos for expanding electric generation and industrial market needs in Mexico.

The Project would interconnect with Trans-Pecos's new 148 miles of 42-inch-diameter intrastate natural gas pipeline facilities extending from a hub in Pecos County, Texas, and terminating at the Presidio Border Crossing Project facilities.

We[2] prepared this environmental assessment (EA) in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA); the Council on Environmental Quality's (CEQ) implementing regulations at Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508 (40 CFR 1500-1508); and the Commission's regulations at 18 CFR 380.

This EA will be used by the Commission in the process of deciding whether to grant Trans-Pecos's requested authorization. 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 specific mitigation measures, as necessary, to minimize environmental impacts; and
- assess reasonable alternatives to the proposed action that would avoid or minimize adverse effects to the environment.

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

1.0 Purpose and Need

Trans-Pecos states that its overall purpose for this Project is to provide natural gas to meet the needs of expanding electric generation fueled by natural gas generation plants and to supply potential industrial customers in Mexico.

The FERC is the federal agency responsible for evaluating applications pursuant to section 3 of the NGA for natural gas import and export facilities, and for Presidential Permits which are necessary pursuant to Executive Order 10485 when export/import facilities are to be constructed at international borders. Under Section 3 of the NGA, the FERC considers all factors bearing on the public interest as part of its decision to authorize natural gas facilities. Specifically, regarding whether to authorize natural gas facilities used for importation or exportation, the FERC shall authorize the proposal unless it finds that the proposed facilities will not be consistent with the public interest.

Section 3 of the NGA also requires prior approval from the U.S. Department of Energy (DOE) for the import or export of natural gas from or to a foreign country. Section 3(c) of the NGA, as amended by section 201 of the Energy Policy Act of 1992 (Public Law 102-148), requires that applications to the DOE Office of Fossil Energy (DOE/FE) for the import and export of natural gas from and to any nation with which the United States currently has, or in the future will have, a Free Trade Agreement be deemed consistent with the public interest and granted without modification or delay. On May 7, 2015 DOE/FE found that Trans-Pecos meets the Section 3(c) criterion and authorized Trans-Pecos to import and export natural gas from and to Mexico up to a combined total of 500 billion cubic feet for a 2-year period effective beginning on June 11, 2015 extending through June 10, 2017 (DOE/FE 2015).

2.0 Public Review

On July 23, 2015, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Presidio Border Crossing Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the Federal Register (80 FR 45522) and was mailed to interested parties including federal, state, and local officials; agency representatives; Native American Tribes, local libraries and newspapers; and property owners potentially affected by the Project activities.

Written comments were requested from the public on specific concerns about the Project or issues that should be considered during preparation of the EA. We received 653 individual stakeholder comments, including comments from Congressman Will Hurd of the 23rd District of Texas; Texas State Senator Jose Rodriquez of the Texas 29th District (El Paso to Big Bend), Maya L. Sanchez, Mayor of San Elizario, Texas; Brewster County Commissioner Mr. Luc Novovitch; and from the City of Alpine, Texas. Several environmental groups and science centers provided comments including the Big Bend Conservation Alliance, the Sierra Club, the Rio Grande International Study Center, and

Coyne A. Gibson of the McDonald Observatory of Texas and member of the Big Bend Conservation Alliance. Federal and state agencies which provided comments include the U.S. Environmental Protection Agency (EPA), the National Park Service (NPS) Big Bend National Park, and the Texas Parks & Wildlife Department (TPWD).

The overwhelming majority of the comments raised by individual stakeholders, including those of Congressman Hurd, and State Representative Rodriquez, as well as the Cities of Alpine and San Elizario, Brewster County, the Sierra Club, the Big Bend Conservation Alliance, the NPS Big Bend National Park, and the Rio Grande International Study Center, pertained to Trans-Pecos' planned 148 miles of intrastate pipeline through Pecos, Brewster, and Presidio Counties, Texas. Specifically, comments addressed the ecological uniqueness of the Big Bend area including: the Big Bend National Park; Fort Davis National Historic Center; Davis Mountain State Park; and the Chianti Mountains. Commentors also requested that the FERC assume federal jurisdiction for the Trans-Pecos intrastate pipeline, along with that of the FERC jurisdictional Presidio Border Crossing Project. The FERC has not assumed jurisdiction for the intrastate pipeline facilities; therefore the scope of the proposed action in this EA is the Presidio Border Crossing Project.

Additionally, the Big Bend Conservation Alliance, along with several other individual stakeholders commented that the FERC should conduct an EIS for the Project, and should include in its NEPA evaluation the Trans-Pecos intrastate pipeline and the planned Comanche Trail Pipeline, LLC intrastate pipeline that would extend from the Waha Hub to San Elizario in El Paso County, Texas. The Big Bend Conservation Alliance also provided specific comments pertaining to the Project's potential impacts on palustrine forested wetlands, minor aquifers along Rio Grande River, migratory birds, species habitat, regional seismicity, and concerns regarding the potential for cultural and archeological resources to be present. The Big Bend Conservation Alliance states that most of the resource reports provided in Trans-Pecos application underestimate the scope of the impacts because the methodologies used for determining the baseline conditions were inaccurate.

The Sierra Club also provided comments regarding Project need. The Rio Grande River Alliance provided comments pertaining to safety and pipeline accidents, and concerns that the crossing would take place at an ecologically important point in the river where the Rio Conchos and the Rio Grande merge; and concerns that water taken from the Rio Grande River for construction purposes would have a detrimental impact due to river-water scarcity.

Region 6 office of the EPA provided comments and recommendations pertaining to the purpose and need of the Project; mitigation of affected resources during construction and operation, specifically water, biological resources, endangered species,

and air quality; cumulative impacts; tribal coordination; and Project alternatives. The EPA, along with several individual stakeholders requested that the EA address environmental justice per Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and per interagency memorandum of understanding on Environmental Justice (August 4, 2011).

The NPS Big Bend National Park provided comments regarding adherence to the federal requirements of the Wild & Scenic Rivers Act and included specific concerns for Project construction impacts to the Rio Grande River including catastrophic seismic events, spills of hazardous materials, lighting used during construction, and the need for measures to avoid light pollution. The NPS Big Bend National Park and other stakeholders also expressed their concerns for construction air emissions, impact to local and regional economies, river-water quality, geologic resources, impacts to the recreational and biological value of the Rio Grande River, and safety.

Comments from the TPWD included clearing of vegetation, prevention of invasive plant species, sedimentation impact on surface waters during horizontal drilling (HDD) and geotechnical drilling investigations, siting of HDD entrance and exit points, migratory bird surveys, as well as surveys for federal and state-protected species.

We also received several comments regarding the inconsistency of the border crossing project with the May 19, 2010 United States-Mexico Binational Agreement[3] for the protection of cultural and natural resources of Big Bend Region, as well as the Center for Environmental Cooperation's conservation assessment (CEC 2014) for the region. In 2014, the Center for Environmental Cooperation, in cooperation with about 60 experts from U.S. and Mexico government agencies, civil organizations, academia, as well as individual landowners and other stakeholders produced a conservation assessment that identified 29 priority conservation areas due to their ecological significance, and opportunities for conservation, protection, and restoration actions.

Lastly, several individual stakeholders provided comments regarding specific species of concern that could occur along both the jurisdictional border crossing and non-jurisdictional intrastate pipeline route, as well as concerns for water used during Project construction, and potential impacts to the Rio Grande River and shallow aquifers along the river.

We address these comments in relevant sections of this EA as indicated in table 1.

[3] https://www.whitehouse.gov/the-press-office/joint-statement-president-barack-obama-and-president-felipe-calder-n

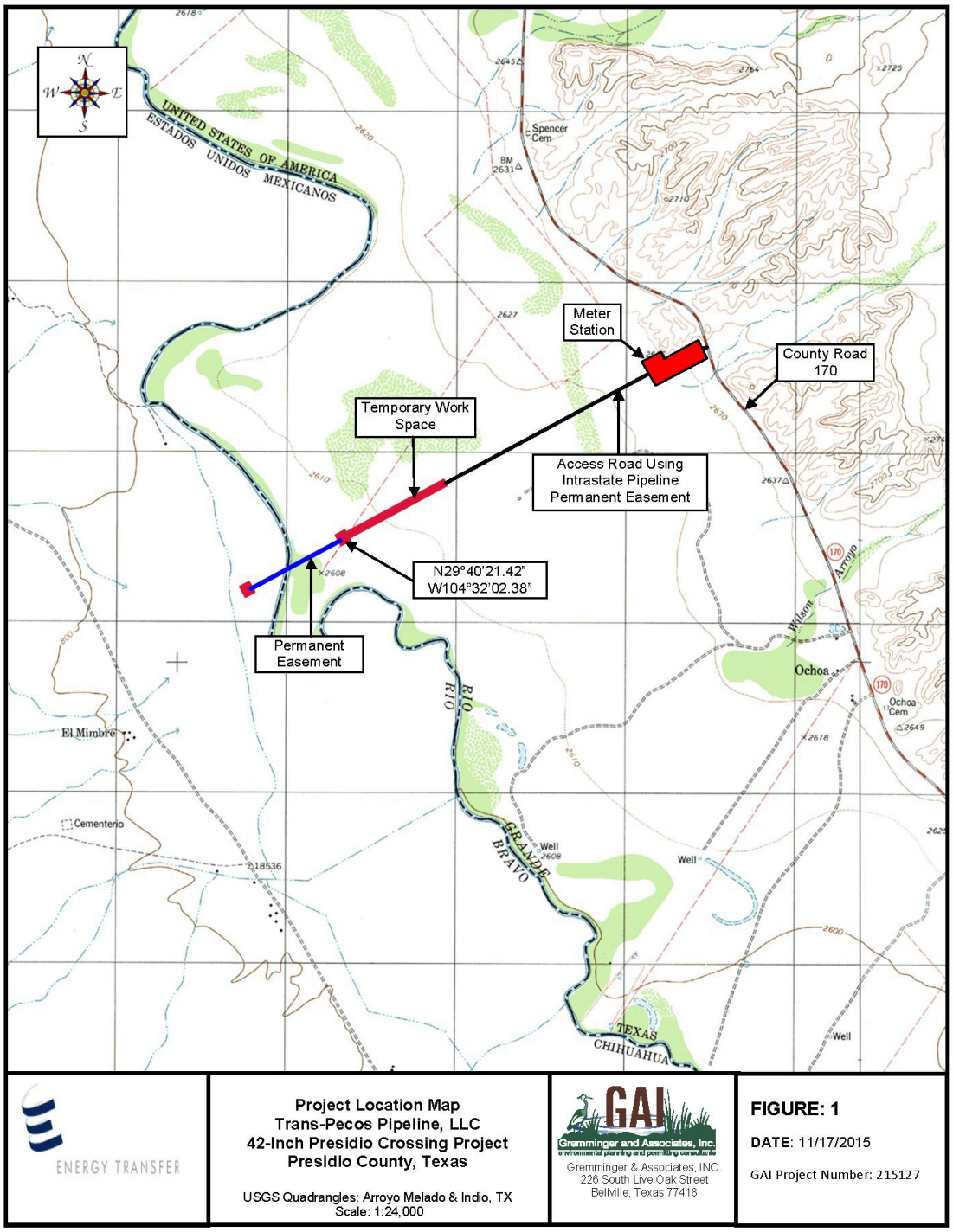
Table 1. Project Comments	
Comment	**EA Section for Response**
Project Purpose and Need	A.1.0
Interstate Versus Intrastate Jurisdiction	A.5.0 & B.8.0
Preparation of an EIS	A.5.0
Seismicity	B1.0
Surface Water and Groundwater	B.2.0
Wetlands	B.2.0
Clearing of Vegetation	B.3.0
Invasive Plant Species	B.3.0
Migratory Birds	B.3.0
Federal and State Protected Species	B.3.0
Sedimentation Impact on Streams	A.4.0; B.1.0; & B.2.0
Land Use, Local Economies, Environmental Justice, and U.S. – Mexico Binational agreement	B.4.0
Wild & Scenic Rivers	B.4.0
HDD Entrance and Exit Locations	A.4.0; B.2.0; & Figure 1
Cultural and Archaeological Resources	B.4.0
Air Emissions	B.6.0
Construction Lighting	B.6.0
Safety	B.7.0
Cumulative Impacts	B.8.0
Alternatives	C

3.0 Land Requirements

Construction of the Project would affect 7.1 acres of temporary workspace (TWS) in the United States for HDD construction and hydrostatic testing of the pipeline. All equipment staging, contractor parking, and materials storage would occur within the HDD workspace. Trans-Pecos would use 5,755 linear feet or 6.6 acres of the adjacent connecting intrastate pipeline permanent easement to access the Project TWS during construction. Following construction, Trans-Pecos would retain a 50-foot-wide permanent right-of-way over the Project facilities, totaling 1.3 acres.

Although Trans-Pecos has identified areas where extra workspace and access roads would be required, additional or alternative areas could be identified in the future due to changes in site-specific construction requirements. Trans-Pecos would be required to file information on each of those areas for review and approval prior to use. A general project location map is shown in figure 1.

Figure 1. General Location of Facilities



4.0 Construction, Operation, and Maintenance Procedures

The Project would be designed, constructed, operated, and maintained in accordance with applicable requirements defined by the U.S. Department of Transportation (DOT) regulations in 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; by FERC's *Siting and Maintenance Requirements* in 18 CFR 380.15; and by other applicable federal and state safety regulations. Prior to construction, Trans-Pecos would notify landowners regarding effects on their property, business, or operations. The Presidio Border Crossing facilities would be owned by Trans-Pecos.

Trans-Pecos states that the Project would be constructed in accordance with our May 2013 *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan), and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures).[4] Trans-Pecos has also prepared a *Horizontal Directional Drill Contingency Plan* which contains the procedures for an inadvertent release of drilling muds and the procedures Trans-Pecos would use to monitor, contain, and respond if an inadvertent release were to occur.

The Project would have an environmental inspector (EI) who would be responsible for ensuring compliance with our Plan and Procedures, project-specific conditions contained in any FERC authorization, and other applicable environmental permits, approvals, and landowner agreements. Project personnel, including the chief inspector, EI, and construction contractor, would receive copies of construction related documents to ensure compliance with all federal, state, and local permit requirements. Construction of the Project facilities would take approximately 40 days to complete and Trans-Pecos anticipates beginning in the last quarter of 2016.

The HDD method would be used to construct the pipeline beneath the Rio Grande River. Generally, an HDD allows for trenchless construction across an area by drilling a hole below the depth of a conventional pipeline trench, and then pulling a prefabricated section of pipe through the hole. This method is used to avoid direct impacts on sensitive environmental features, such as waterbodies, or areas that otherwise present difficulties for standard pipeline construction.

[4] The FERC Plan and Procedures are a set of construction and mitigation measures that were developed in collaboration with other federal and state agencies and the natural gas pipeline industry to minimize the potential environmental impacts of the construction of pipeline projects in general. The FERC Plan can be viewed on the FERC internet website at http//www.ferc.gov/industries/gas/enviro/plan.pdf. The FERC Procedures can be viewed on the FERC internet website at http//www.ferc.gov/industries/gas/enviro/procedures.pdf.

To install the border-crossing pipeline, Trans-Pecos would HDD beneath the Rio Grande from the United States side of the Rio Grande River. After the initial pilot borehole and several reaming passes to enlarge the borehole are complete, the pre-fabricated pipeline would be then be hydrostatically tested and drawn back to the drill exit location in Mexico. Upon completion of pipeline construction, Trans-Pecos would again hydrostatically test the entire length of the pipeline. All disturbed workspaces would be restored per the requirements in our Plan.

5.0 Non-jurisdictional Facilities

Occasionally, projects have associated facilities that are constructed in support of the project, but do not come under the jurisdiction of the FERC. Such non-jurisdictional facilities are often constructed upstream or downstream of the jurisdictional facilities for the purpose of delivering, receiving, or using the proposed gas volumes.

Trans-Pecos has indicated that they plan to construct and operate 148-mile-long intrastate pipeline facilities that would transport natural gas from a new header originating on the pipeline grid near the Waha Hub located approximately 3 miles northwest of Coyanosa, Texas in Pecos County, and terminating at the Presidio Border Crossing Project facilities. The Trans-Pecos intrastate facilities would traverse through the Texas counties of Pecos, Brewster, and Presidio. At the header location, an affiliate of Trans –Pecos would install a 70,000 horsepower Waha Compressor Station, and 1.5-miles of header pipeline with eight interconnects to existing intrastate and interstate pipeline systems. A new meter station would also be constructed adjacent to County Road 170 at about Mile Post 146.4, approximately 4,700 feet (0.9 mile) from the jurisdictional Project.

A map of the non-jurisdictional pipeline facilities is provided on figure 2 in section B.8 of this EA. These facilities are not part of the proposed action and not subject to the Commission's jurisdiction because they constitute construction of an intrastate pipeline subject to the jurisdiction of the Railroad Commission of Texas (RCT). The RCT Oil and Gas Division is responsible for regulating intrastate natural gas pipeline projects in the state of Texas. According to Trans-Pecos, it received an Oversight and Safety Division T-4 Permit from the RCT on April 6, 2015. We include publicly available information for this project in our cumulative impacts analysis (section B.8.3) in order for the public and the Commission to make a fully informed decision.

In addition, at the crossing of the Rio Grande River, Trans-Pecos plans to install a fiber optics cable to connect Energy Transfer Company's supervisory control and data acquisition (SCADA) system at the Waha Compressor Station to the Mexican pipeline company's control system in Mexico. The fiber optics cable would allow for monitoring of pipeline system operations on the Trans-Pecos pipeline and interconnecting pipeline in Mexico in real time. The cable would be installed in a 1,964 foot, 6-inch-diameter

conduit installed under the Rio Grande River by HDD. The conduit HDD entry would be offset from the natural gas pipeline HDD by 15 feet and would follow a shallower profile depth of 43 feet below the river but paralleling the natural gas pipeline. Installation of the fiber-optic cable would occur during the same timeframe as the Project pipeline and would not require additional width of permanent easement of the jurisdictional pipeline or additional workspace for its installation.

We received several comments that the Commission should prepare an EIS and not an EA to assess the impacts of both the FERC jurisdictional Presidio Border Crossing Project, the Trans-Pecos intrastate project, as well as the Comanche Trail Pipeline, LLC intrastate pipeline project and FERC jurisdictional border crossing.

As discussed above, the FERC has no jurisdiction for the intrastate pipeline facilities; therefore the scope of the proposed action in this EA is the Presidio Border Crossing Project. The CEQ regulations implementing NEPA state that one of the purposes of an EA is to assist agencies in determining whether to prepare an EIS or a finding of no significant impact.[5] Consistent with CEQ's regulations, the Commission's policy is to prepare an EA, rather than an EIS, if our initial review indicates that a project is not likely to be a major federal action significantly affecting the quality of the human environment. In preparing this EA, we are fulfilling our obligation under NEPA to consider and disclose the environmental impacts of the Project. This EA addresses the impacts that could occur on a wide range of resources should the Project be approved and constructed. Based on our analysis and considering that the FERC jurisdictional Project would involve limited facilities (approximately 1,093 feet of pipeline), we conclude that the limited impacts associated with this Project would support a finding of no significant impact and, thus, an EA is warranted. The FERC staff is conducting a separate NEPA analysis for Comanche Trail Pipeline, LLC's San Elizario Crossing Project under FERC Docket No. CP15-503-000.

6.0 Permits, Approvals, and Consultations

A number of federal, state, and local regulatory agencies have permit, approvals, or consultations that may be needed for the Project (see table 2).

[5] *See* 40 C.F.R. § 1508.9 (2013).

Table 2. Permits and Approvals		
Administrating Agency	**Permit/Approval**	**Status**
Federal		
Federal Energy Regulatory Commission	Natural Gas Act Section 3 Presidential Permit Application and 18 CFR 153	Application filed May 28, 2015, assigned Docket No. CP15-500-000.
U.S. Fish and Wildlife Service	Threatened and Endangered Species Act Section 7 Consultation	No effect finding May 14, 2015. Consultation complete.
U.S. Army Corp of Engineers	Rivers and Harbors Action Section 10 (Nationwide Permit 12)	Application filed May 19, 2015. No impact concurrence June 15, 2015. Will be issued upon receipt of Presidential Permit. Pending
International Boundary and Water Commission	License to Construct Pipeline	License application filed on May 13, 2015, and assigned Lic. No. 2015-25. License Approval Pending.
U.S Customs and Border Protection Border Patrol Division	Consultation to determine if proposed project would conflict with US Border Patrol operations and security	Initial consultation in April 2015, additional consultation held May 19, 2015. In progress.
U.S. Environmental Protection Agency Region	National Pollutant Discharge Elimination System permit for hydrostatic test water discharge.	Pending. Permit application will be submitted prior to construction.
National Park Service Big Bend National Park (BBNP)	BBPN requested Wild and Scenic River Act, Section 7(A) review through the U.S. Army Corp of Engineers	Authorization Request submitted May 19, 2015. Pending.
State		
Texas State Historic Preservation Office	Section 106 of National Historic Preservation Act	No effect concurrence letter received May 18, 2015. Consultation complete.
Texas Commission on Environmental Quality (TCEQ)	Temporary water use appropriation permit (TCEQ-20425 or TCEQ-10202)	Pending.
Texas Parks and Wildlife Department	Request for best management practices (BMP) submitted May 13, 2015. Biologist monitoring and BMP practices request June 23, 2015.	Complete. Action required prior to construction.
Railroad Commission of Texas	PS-48 30-day notice start of construction	Pending
Railroad Commission of Texas	Hydrostatic Test Discharge Permit. Request 30 days prior to start of construction, valid for 60 days	Pending

B. ENVIRONMENTAL ANALYSIS

1.0 Geology and Soils

Geology

The Project is in the Basin and Range Physiographic Province in Presidio County, Texas along the Rio Grande River. The Project area lies within the Hueco Bolson, an extensive interior basin drained by the Rio Grande River extending from central New Mexico to the Rio Conchos Valley west of Presidio, Texas. Surface geology affected by the Project consists of Holocene-age surficial deposits consisting of colluvium, gravel deposits, alluvium deposited by the flooding of the Rio Grande River, and alluvial-fan deposits. Topographically, the Project area is relatively flat, with a slight slope to the southwest and an average ground surface elevation of 2,600 feet above mean sea level.

The Project is located within the Shafter Mining District, an area in south-central Presidio County where 15 prospects were mined for silver and related ores from 1883 until 1952. However, the Project work area is located more than 10 miles from any of these historic mine locations. There are no identified hydrocarbon resource mining or extraction locations in the Project area.

There are no karst features at the proposed Project location, and the bedrock geology at the Project site does not support the development of karst.

The proposed Project is underlain by the Hueco-Mesilla Bolson aquifer which is a major source of municipal supply. Over pumping of this aquifer in excess of naturally occurring recharge amounts within this arid environment has caused water-level declines and minimal local land subsidence within the El Paso County area. The most significant aquifer water-level declines have been experienced in the Van Horn in the Lobo Flats and to the east in the Wild Horse Basin [Texas Water Development Board (TWDB) 2015]. The proposed Project is located in Presidio County and, regardless would be designed to withstand the levels of subsidence experienced in the El Paso area from aquifer dewatering.

The Project occurs within deep alluvial deposits. Fossils are found in the alluvium consisting of mammals of the Chadronian mammal age, a variety of species from the Order Artiodactyla, and other species such as bison, mammoths, and deer-like species. Regionally, these occur mainly as exposures in the banks of river and stream channels and at higher elevations in alluvium deposits in low terrace deposits along streams. The nearest known surface occurrence of Alluvium Formation fossil resources are in the Marfa area which is approximately 50 to 55 miles northeast of the Project location. There could be paleontological resources within, or in near vicinity to, the Project

location, but are likely too deeply buried to be discovered by normal anthropogenic activities. It is unlikely the Project will affect any Paleontological resources

During the Project scoping period, we received comments from the NPS Big Bend National Park regarding the potential for catastrophic seismicity to occur and pipeline safety concerns. Hazards to steel pipelines used for the transmission of natural gas are limited to those that produce permanent deformation along the pipeline alignment. These hazards include seismicity or strong and prolonged ground shaking, surface fault rupture, seismically-induced soil liquefaction, slope instability, and landslide susceptibility.

The United States Geologic Survey (USGS 2014) earthquake hazard program mapping shows that seismicity in terms of peak ground acceleration (PGA) within the Project area is between 3 to 5 percent gravity for the 10-percent probability of return period in 50 years. These values represent light to moderate ground shaking with little to no associated damage, and low potential for soil liquefaction to occur.

There are no recent faults which cross or that are present in the immediate vicinity of the Project. Along the Rio Grande River, northwest of the Project there are a number of Holocene-age faults that are approximately parallel to the course of the river. However, the nearest of these faults to the Project is approximately 13 miles. Additionally, USGS Quaternary Fault and Fold Database (USGS 2013) shows one fault located about 12 miles southwest of the Project within Mexico. Lastly, the flat terrain renders the Project area negligible for slope instability and landslides.

Given the geologic conditions at the site of the Project's crossing of the Rio Grande River, we do not anticipate that pipeline safety would be compromised due to geologic seismicity, ground rupture, soil liquefaction, subsidence or landslides.

Soils

The U.S. Department of Agriculture, National Resource Conservation Service on-line soil survey for Presidio County was used to define soils within the Project area. Surficial soils at the Project site consist of the Melado-Pantera complex (1 to 5 percent slopes); and the Vicente, Lomapelona, and Castolon soils (0 to 1 percent slopes). These soils are predominantly developed from stratified alluvial deposits, clayey alluvium, and loamy gravelly alluvial deposits, and occur along floodplains, alluvial fans, and on alluvial flats along the Rio Grande River. Soils in these series are considered well drained.

We received comments from the TPWD regarding sedimentation impact on surface waters during the HDD and other construction activities in the Project work areas. Trans-Pecos would minimize soil impacts and runoff to nearby surface waters during

construction by adhering to the construction and restoration methods required by our Plan, including: restricting construction activities to approved work areas, installing temporary erosion controls such as silt fencing, and properly maintaining these temporary controls until permanent erosion controls are installed or restoration is complete.

Trans-Pecos would reseed temporary work areas and conduct monitoring for at least two years after construction to confirm successful restoration. In areas excavated to facilitate drilling-mud circulation pits, Trans-Pecos would perform topsoil segregation, per our Plan requirements, and in accordance with the landowner easement agreement. Topsoil would be stockpiled separately from subsoil and replaced in the proper order during backfill and final grading. Project area soils are considered susceptible to wind erosion, and soil rutting, depending on the degree of saturation within work areas during construction. Trans-Pecos would minimize potential fugitive soil losses during construction by applying dust control measures such as watering the construction work areas and access roads, and would de-compact soils per our Plan requirements. Soil rutting is not anticipated given the well-drained nature of Project soils.

Inadvertent spills or leaks of fuels, lubricants, or coolant from construction equipment could impact Project soils. These are normally minor events of low frequency and small volumes. However, Trans-Pecos has developed a Spill Prevention, Containment, and Countermeasure (SPCC) Plan that specifies the prevention measures and cleanup procedures in the event of a spill or leak during construction activities. We have reviewed the contents of this plan and find it acceptable.

We conclude that the effects of construction and operation of the Project on geology and soils would be minor.

2.0 Groundwater, Surface Water Resources, and Wetlands

The proposed Project is located within the West Texas Bolsons basin-fill aquifer. The West Texas Bolsons aquifer is a minor aquifer composed of fine-grained lake deposits to coarse-grained alluvial fan deposits consisting of volcanic rock and limestone material. The saturated thickness of the aquifer is on the order of 580 feet. Groundwater quality varies from freshwater containing less than 1,000 milligrams per liter of total dissolved solids (TDS) to slightly/moderately saline water containing TDS concentrations between 1,000 to 4,000 milligrams per liter. Groundwater from the West Texas Bolsons aquifer is used primarily for irrigation and livestock watering, and for municipal supply for the cities of Presidio, Sierra Blanca, Valentine, and Van Horn. The West Texas Bolsons aquifer has experienced water-level declines, due to extraction above natural recharge amounts, with the most significant aquifer water-level declines experienced in Van Horn in the Lobo Flats and to the east in the Wild Horse Basin (TWDB 2015).

We received scoping comments regarding minor aquifers at the site of the river crossing and groundwater use during construction.

Per the findings of the geotechnical investigation conducted by Trans-Pecos at the site of the proposed HDD alignment, groundwater in the Project area occurs at a depth of about 13 feet below ground surface, and may constitute a local minor aquifer of unknown extent. The Project HDD would be at depth of 69 feet beneath the Rio Grande River through saturated unconsolidated materials. The results of Trans-Pecos' geotechnical soil boring for the U.S. side of the crossing shows subsurface material consisting of sand and sandy clay to a depth of 40 feet where a 5 foot thickness of well-graded gravel was encountered that is underlain by thick fat clay with occasional seams of gravel to the bottom of the boring at 100 feet below ground surface. Bedrock was not encountered in the boring. Trans-Pecos states that a second boring is planned but not yet completed for the Mexico side of the crossing.

The results of the geotechnical boring indicate that the subsurface along the depth of the HDD profile above 40 feet and below 45 feet below ground surface are amenable to the HDD method. The five feet of gravel between 40 to 45 feet may provide for some borehole stability difficulty during drilling.

Use of the HDD technique typically avoids disturbing a waterbody bed and banks and minimizes environmental impacts. However, an inadvertent release of drilling fluids from the drilled borehole through hydrofractures could reach the surface along the drill path. Trans-Pecos' analysis of estimated downhole pressures versus overburden pressures shows that the risk of inadvertent releases of drilling fluid reaching the ground and waters in the Rio Grande River is low. This modeling of downhole and overburden pressures did show, however, that within the last 40 to 50 feet of the borehole exit location, there is a chance for an inadvertent release to occur.

Drilling fluid is comprised of a mixture of water and non-toxic, naturally occurring bentonite clay, which in small quantities would not be detrimental to vegetation, fish, or wildlife. In larger quantities, the release of drilling fluids into a waterbody could affect fisheries and vegetation by causing turbidity, sedimentation, and changes to aquatic habitat.

Trans-Pecos has prepared a *Directional Drilling Contingency Plan* which provides the procedures to monitor and mitigate the potential effects of an inadvertent release of drilling fluids. Trans-Pecos would monitor the volume of drilling fluids and the borehole pressures during drilling to determine if a substantial loss of drilling fluid circulation is occurring. An inadvertent release of drilling fluid within upland areas would be immediately contained with barriers such as hay bales, sand bags, or silt fencing, and

collected. If the release is large enough to allow collection, the drilling mud would be collected and returned to the drill rig operations, or disposed of at a disposal site.

A substantial, long-duration release of drilling fluids could affect operation of other in-stream water use in the Rio Grande River. We received several scoping comments regarding the impact to other uses downstream of the HDD location, particularly comments from the NPS Big Bend National Park regarding impacts to recreational use of downstream users in segments of the River classified as a National Wild and Scenic River.

The proposed Project crossing is not located within a segment of the River currently designated as or proposed as a candidate for the National Wild and Scenic River Program.

Trans-Pecos *Directional Drilling Contingency Plan* contains measures it would implement in the event of a release into the Rio Grande River. If a release were to occur, Trans-Pecos states it would notify the FERC, and the U.S. Army Corp of Engineers and the U.S. Fish and Wildlife Service (FWS), as well as all applicable local and state agencies to inform them of the release. Corrective actions would be implemented to contain the release such as utilizing silt fences or turbidity curtains. However, Trans-Pecos contingency plan does not include measures that would be utilized to collect and dispose of drilling mud released into the Rio Grande River. Additionally, the contingency plan does not contain a provision for notifying the International Boundary and Water Commission (IBWC) of the release. Therefore, **we recommend that**:

- **Prior to construction, Trans-Pecos should file with the Secretary of the Commission (Secretary) a revised *Directional Drilling Contingency Plan* for review and written approval by the Director of the Office of Energy Projects (OEP) that includes:**

  a. measures to be implemented for collection and disposal of an inadvertent release of drilling mud into the Rio Grande River; and
  b. procedures to notify the IBWC of any release of drilling mud into the river.

Trans-Pecos conducted a search utilizing the Texas Water Development Board groundwater database, the Texas Commission on Environmental Quality (TCEQ) well database, and USGS mapping to identify wells in the vicinity of the Project. The results of this search showed that there are no public or private water wells within one mile of the Project area. The nearest well to the Project location was found to be 1.9 miles east-southeast of the Project. There are no State of Texas protected aquifers or EPA designated sole source aquifers, or source-water protection zones in the Project area.

There is no proposed pumping of groundwater for dewatering excavations during Project construction. Water required for the HDD, hydrostatic testing, and for dust control would be acquired from the City of Presidio. Trans-Pecos states that the total maximum anticipated volume of water required for these Project work activities would be about 2,050,000 gallons over the 40-day construction schedule. Trans-Pecos has received confirmation from the Deputy Administrator of the City of Presidio who in consultation with the City Administrator advised Trans-Pecos that the City of Presidio can accommodate the necessary Project water requirements (Trans-Pecos 2015).

Hydrostatic test waters will be discharged at the south end of the river crossing pipeline segment on the edge of, but within, the approved workspace. Discharges will be directed into a silt fence lined hay bale containment structure of sufficient size to accommodate the RCT allowed discharge rate of 250 gallons per minute. The use of the filtration structure will prevent scouring of the ground surface and allow for the capture of any solids remaining from construction of the pipeline segment.

Trans-Pecos' search of publically available information from the EPA, TCEQ, and the Texas Joint Groundwater Monitoring and Contamination Report (2013) did not show the presence of known contaminated soils and/or groundwater sites within Presidio County.

The Project facilities would be within the Fort Quitman-Cibilo-Red Light segment of the Rio Grande River (EPA and TECQ Identification No. TX-2307_01). TCEQ's 2012 analysis identified this segment of the Rio Grande River as impaired water under the Clean Water Act Section 303(d) with listed impairments for bacteria, chlorides, and TDS. There are no potable water intakes in the Rio Grande River within three miles of the Project.

The IBWC maintains permanent river monitoring gauges along the Rio Grande River. The nearest monitoring gauge is located about six miles upstream of Presidio, Texas, and about 12 river miles downstream of the proposed Project location. The highest and lowest average seasonal flows measured in the river occurs in April and September, respectively with the lowest seasonal period occurring between January and May. Trans-Pecos plans to conduct Project drilling activities during low-flow conditions in this segment of the Rio Grande River.

Trans-Pecos would implement the measures in our Plan and Procedures to minimize the potential for sediment runoff to impact the Rio Grande River from construction work areas. Inadvertent releases of fuels, lubricants, or solvents from construction activities that could potentially impact surface waters within the Rio Grande River adjacent to the Project would be addressed through implementation of Trans-Pecos' SPCC Plan.

We received several comments regarding Trans-Pecos' characterization of wetlands within the Project area. The FWS - National Wetlands Inventory (NWI) indicates that palustrine forested wetlands encompass the entirety of the Project workspace. However, Trans-Pecos conducted a field assessment of the Project on May 6, 2015 in accordance with the 1987 Corps of Engineers Wetland Delineation Manual and Arid West Supplement and found no forested wetlands within, or, adjacent to the Project. The Project location and immediate surrounding habitats, including the Rio Grande River riparian zone, are principally vegetated by shrub and tree-size western honey mesquite. The National Wetland Plant List Arid West Regional Status designates this species as an upland species.

Based on Trans-Pecos' proposed construction and mitigation measures, their adherence to our Plan and Procedures and the SPCC Plan, and with our recommended revisions to their *Directional Drilling Contingency Plan*, we conclude that impacts on groundwater (quality or quantity), surface water resources, and wetlands would not be significant and these resources would be adequately protected during construction of the Project.

3.0 Vegetation, Fisheries, and Wildlife

3.1 Fisheries and Aquatic Species

The Rio Grande River supports or is capable of supporting fish, amphibians, and other aquatic species including mussels that are tolerant of poor water quality and other conditions related to variable flows. Using an HDD to cross the Rio Grande River would avoid direct impacts on the waterbody and the species contained therein. However, the use of an HDD could result in an inadvertent release of drilling mud along the drill path and into the river. If released in small quantities, drilling mud would not adversely affect fisheries. In large quantities, the release of drilling mud could affect water quality, aquatic habitat, and fisheries. Specifically, fish and other aquatic life could experience increased rates of stress, injury, or mortality.

To avoid and minimize impacts on the Rio Grande River including any impacts resulting from a release of drilling mud, Trans-Pecos would implement the measures as described in our Plan and Procedures and its *Directional Drilling Contingency Plan*. These measures include the implementation of erosion control devices; drill monitoring/reporting; release containment; and clean-up and restoration. In addition, we have recommended in section 2.0 of this EA, that Trans-Pecos revise its *Directional Drilling Contingency Plan* to include additional measures to collect and dispose of any potential drilling mud release into the Rio Grande River.

Based on Trans-Pecos' use of an HDD and its implementation of impact avoidance and minimization measures, and our recommendation, we conclude that

constructing and operating the Project would not significantly affect fisheries and aquatic species.

3.2 Vegetation

As described previously, installing the pipeline would require the temporary use of about 7.1 acres of land. This land is dominated by scrub vegetation. Trans-Pecos would clear existing vegetation to install the pipeline and would allow vegetation to revegetate naturally following construction. Several comment letters expressed concern about impacts on vegetation and one commentor expressed specific concern about peyote (*Lophophora williamsii*).

The loss of vegetation due to clearing could affect soils, surface water flow, groundwater, wildlife, and increase the potential for the introduction of exotic and invasive species. Additionally, the loss of peyote would reduce its availability for religious and/or cultural use. However, based on the scope of the Project; amount of land affected (7.1 acres) and short duration of Project-related activities, we have determined that these effects would be minor and highly localized.

To ensure vegetation is not adversely affected following installation of the proposed pipeline, Trans-Pecos would implement numerous measures identified in our Plan including installing erosion control devices, segregating topsoil (as necessary), testing for and mitigating soil compaction, and monitoring restoration success. Therefore, based on the type and amount of vegetation affected, the temporary nature of the construction activities, and Trans-Pecos' implementation of impact minimization measures, we conclude constructing and operating the proposed pipeline would not significantly affect this resource.

3.3 Migratory Birds

Migratory birds are protected by the Migratory Bird Treaty Act (16 U.S. Code 703-711). This Act governs and prohibits the take and certain other impacts on migratory birds and their nests. Executive Order 13186 was issued, in part, to ensure that environmental analyses of federal actions assess the impacts on migratory birds. Executive Order 13186 also states that emphasis should be placed on species of concern, priority habitats, and key risk factors; and prohibits the take of any migratory bird without authorization from the FWS. The Commission and the FWS have entered into a Memorandum of Understanding (MOU) that focuses on avoiding or minimizing adverse impacts on migratory birds and strengthening migratory bird conservation through enhanced collaboration between the Commission and the FWS by identifying areas of cooperation. This voluntary MOU does not waive legal requirements under any other statutes and does not authorize the take of migratory birds.

A variety of migratory birds and birds of conservation concern including owls, sparrows, hawks, warblers, and other birds use or could use the scrub vegetation and habitat affected by the Project. These birds use these habitats for resting (stopover), sheltering, foraging, breeding, or nesting. Consistent with Executive Order 13186 which emphasizes a focus on species of concern and priority habitats, the Project would be located within the North American Bird Conservation Initiative - Bird Conservation Region 35. Thirty-one birds of conservation concern occurring or potentially occurring in the Project area have been identified in the FWS publication *Birds of Conservation Concern 2008*.[6]

The temporary loss of wildlife habitat and the general disruption created by the use of construction-related equipment could result in the displacement of migratory birds and their avoidance of affected lands. Displacement and avoidance could impact bird migration, nesting, foraging, and mating behaviors. Behavior changes combined with the loss of wildlife habitats could increase the rates of mortality, injury, and stress experienced by migratory birds.

To address TPWD's concerns about migratory birds and per its recommendations, Trans-Pecos would clear vegetation outside of the March-August migratory bird breeding season and if nests are identified by biologists, clearing would be delayed until hatchlings have left the nest.

We have determined, based on the characteristics and habitat requirements of the birds of conservation concern and migratory birds occurring or potentially occurring in the Project area, the amount of habitat affected, the presence of similar habitats adjacent to and in the vicinity of the Project, and the timing of construction activities, that constructing and operating the Project would not result in population-level impacts or significant measureable negative impacts on birds of conservation concern or migratory birds.

3.4 Wildlife and Protected Species

The scrub vegetation described previously provides habitat for commonly found wildlife and could support a variety of protected species. Protected species are addressed below. Wildlife observed during surveys of the Project area include greater roadrunner (*Geococcyx californianus*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), scaled quail (*Callipepla squamata*), mule deer (*Odocoileus hemionus*), burro (*Equus asinus*), and bobcat (*Lynx rufus*).

[6] Birds of Conservation Concern 2008 is available for review at http://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf

Installing and operating the proposed pipeline would temporarily affect wildlife and wildlife habitat. Project related activities including clearing and the general use of construction equipment would result in the loss of wildlife habitat, change the characteristics of adjacent wildlife habitat, displace wildlife, alter wildlife behavior; and could increase the rates of mortality, injury, and stress experienced by wildlife. However, based on the scope of the Project; amount of land affected (7.1 acres) and short duration of Project-related activities, we have determined that these effects would be minor and highly localized. Therefore, we conclude constructing and operating the proposed pipeline would not significantly affect wildlife.

Special status species are those species for which state or federal agencies afford an additional level of protection by law, regulation, or policy. Included in this category are federally listed species that are protected under the Endangered Species Act or are proposed or candidates for such listing by the FWS, and those species that are state-listed as threatened, endangered, or other special status. FERC is required by Section 7(a)(2) of the Endangered Species Act to ensure that any action authorized, funded, or carried out by the agency would not jeopardize the continued existence of a federally listed threatened or endangered species, or result in the destruction or adverse modification of the designated critical habitat for a federally listed species. As the lead federal agency, FERC is responsible for the Section 7 consultation process with the FWS.

Federally-listed Threatened and Endangered Species

According to the FWS' Information for Planning and Conservation System (IPaC), 10 threatened and endangered species, one candidate species, and one experimental/non-essential species should be considered as part of an affect analysis for the Project. The Commission also received numerous comments expressing concern about potential effects on federally-listed threatened and endangered species. The IPaC System identifies the endangered: Least tern (*Sterna antillarum*), Northern aplomado falcon (*Falco femoralis septentrionalis*), Southwestern willow flycatcher (*Empidonax traillii extimus*), and Mexican long-nosed bat (*Leptonycteris nivalis*); and the threatened: Mexican spotted owl (*Strix occidentalis lucida*), Piping plover (*Charadrius melodus*), Red knot (*Calidris canutus rufa*), Yellow-billed cuckoo (*Coccyzus americanus*), Hinckley oak (*Quercus hinckleyi*), and Lloyd's mariposa cactus (*Echinomastus mariposensis*). The IPaC System also identifies the candidate Guadalupe fescue (*Festuca ligulata*) and the experimental/non-essential Rio Grande silvery minnow (*Hybognathus amarus*).

We have reviewed the life and habitat characteristics and requirements of these species as described by the FWS Environmental Conservation Online System and other publicly available sources. Based on this information, the scope of the project, land requirements, the use of an HDD, the absence of suitable habitat and species observed during surveys, and Trans-Pecos' implementation of measures to avoid and minimize

impacts on the environment, we have determined that installing and operating the proposed pipeline would result in no effect on federally-listed threatened and endangered species.

State-listed and Rare Species

We received numerous comments expressing concern about potential effects on state-listed species. In the TPWD's letter to Trans-Pecos dated June 23, 2015, TPWD identified the Texas horned lizard (*Phrynosoma* cornutum), Chihuahuan mud turtle (*Kinosternon hirtipes murrayi*), and Trans-Pecos black-headed snake (*Tantilla cucullata*) as having the potential to occur in the Project area. Additionally, in its letter, the TPWD includes several recommendations addressing state-listed species. These recommendations include measures to survey for state-listed species prior to construction, relocating observed species, excluding species from construction areas, monitoring construction activities, contractor training, and installing erosion and sediment control devices.

We have reviewed the life and habitat characteristics and requirements of state-listed species. The Texas horned lizard was observed during surveys of the Project area. No other state-listed species were observed.

As recommended by the TPWD, Trans-Pecos has committed to using a state permitted wildlife biologist to re-review the Project area 60 days and 30 days prior to construction. A biologist would also be onsite during installation of the proposed pipeline. This biologist would exclude, remove and/or disperse wildlife from work areas each morning.

Based on state-listed species requirements, the scope of the Project, land requirements, the use of an HDD, the absence of species observed during surveys, and Trans-Pecos' implementation of measures to avoid and minimize impacts on state-listed species as recommended by the TPWD, we conclude that constructing and operating the proposed pipeline would not significantly affect state-listed species. Additionally, we have reviewed the rare species identified by the TPWD and have concluded that installing and operating the proposed pipeline would not significantly affect these species.

4.0 Land Use, Visual and Socioeconomic Impacts, and Environmental Justice

4.1 Land Use

Construction of the Project and would require temporary disturbance of approximately 7.1 acres of land currently used for livestock grazing. Ingress and egress to the Project would occur along 5,755 feet (6.6 acres) of connecting intrastate pipeline permanent easement. Trans-Pecos would retain a 50-foot-wide permanent easement for

the Project pipeline that would occupy 1.3 acres. The Project does not include any aboveground facilities.

The nearest residence to the Project is located 2 miles to the east-southeast. The Project would not affect nor be within or near any public use areas or special/sensitive land uses. The Big Bend State Park is 13 miles east of the Project at its nearest point, and the Big Bend National Park is 54 miles southeast from the Project. As discussed in section B.2.0, the Project border crossing is not located within a segment of the Rio Grande River currently designated as or proposed as a candidate for the National Wild and Scenic River Program.

We received several comments regarding the U.S.-Mexico Binational Agreement, and the Center for Environmental Cooperation's Conservation Assessment goals (CEC 2014). The jurisdictional border crossing project is located about 11 miles northwest of Presidio, Texas and Ojinaga, Mexico, and the confluence of the Rio Conchos and the Rio Grande Rivers. The Center for Environmental Cooperation designates twelve Priority Conservation Areas (PCAs 1 through 12) for the conservation of aquatic and riparian habitats. The border crossing project is located upstream of PCA 5, which the Center for Environmental Cooperation designates as an area encompassing U.S. perennial tributaries along the Rio Grande River between the confluence of the Rio Conchos near Ojinega, Mexico downstream to the Amistad Reservoir. PCA 5 is characterized as a segment of the Rio Grande River that is unencumbered by significant water impoundment and diversions, including groundwater baseflow that support ecological and hydrological functions which provide vegetation and wildlife habitat, and that support a migration corridor for migratory birds.

As discussed in section B.2.0, impacts on groundwater (quality or quantity), and surface-water resources would not be significant and would be adequately protected during construction of the Project through implementation of their SPCC Plan, Trans-Pecos's adherence to our Plan and Procedures, and with our recommended revisions to their *Directional Drilling Contingency Plan*.

4.2 Visual Impacts

We received comments from the Big Bend National Park, and several stakeholders regarding impacts on night sky viewing, the Marfa Lights (located about 55 miles northeast of the Project), and light pollution during construction and operation of the Project. Due to sparse human occupation and the associated light pollution that comes from human settlement, the Big Bend area of west Texas is known as one of the best places in North America for star gazing in the lower 48 states.

The Project HDD activities would be conducted during the anticipated 40-day work duration in the last quarter of 2016. Lighting could be used if HDD operations

were to be continued after dusk or if continuous drilling and/or pipeline pullback activities were required to complete the Project. However, given the short duration for Project construction and the lack of any permanent above-ground facilities for the FERC jurisdictional facilities requiring outside illumination, no long-term permanent impairment of current visual resources including "dark sky" recreation would result from construction or operation of the Project.

The Marfa Lights Viewing Center is located about 60 miles northeast of the Project along Texas State Highway 67. Given this distance, no impact from Project construction lighting is anticipated on viewing of the Marfa Lights.

4.3 Socioeconomics and Environmental Justice

We received several comments from stakeholders that the Project could have permanent impacts on the local tourism economy and to the immediate socioeconomics for Presidio County. The principal industry in the County is agriculture and livestock, including sheep and cattle. The specific uses for the area affected by the Project do not include tourism. Therefore, tourism would not be affected by the Project. Based on the short duration of Project activities, impacts on socioeconomics would similarly be negligible.

The EPA requested that we identify any environmental justice communities in the Project area. Executive Order 12898 on Environmental Justice recognizes the importance of using the NEPA process to identify and address, as appropriate, any disproportionately high and adverse health or environmental effects on minority populations and low-income populations. The EPA defines Environmental Justice Areas or Communities as locations that have a "meaningful greater" percentage of minorities than the general population. Minority populations are defined as people who classify themselves as Black or African American, Asian or Pacific Islander, American Indian or Alaskan Native, or persons of Hispanic or Latino populations.

Per the Presidio County Profile compiled by the County Information Program, Texas Association of Counties[7], the 2010 census data shows that:

- the county population was 7,818 with a population density of 2 people per square mile; and
- the 2014 estimated population of the County is 6,976.

The 2013 Bureau of Economic Analysis data[4] shows that:

[7] Accessed at http://www.txcip.org/tac/census/profile.php?FIPS=48377

- the per capita income for the County is $34,222 and the median household income is $32,766; and
- the percent of the population in poverty is 23.2.

Ethnicity and race for the County is comprised of 82.7 percent of people who classify themselves as Hispanic or Latino. The County is comprised of 94.3 percent white (14 percent as white non-Hispanic alone), 1.5 percent Black or African American, 1.6 percent Native American, and 1.6 percent Asian.

Environmental justice guidelines define low-income populations using statistical poverty thresholds as defined by the U.S. Census Bureau. In 2014, the poverty-weighted average threshold for an individual in the United States was $12,071. As discussed above, the per capita income for the County in 2013 was $34,222 and the median household income was $32,766, and as such the Project area would not be considered a low-income population.

The FERC jurisdictional Project is minimal in size (7 acres), and short in construction duration (40 days). The population density of the County is 2 persons per square mile, located in a remote area. The Project would not permanently remove any lands from production; or displace any residence or business.

As such, we conclude that the FERC jurisdictional Project would not have any significant or long-term impact on the socioeconomics of Presidio County and would not result in any disproportionately or adverse environmental and human health impacts on minority or low-income populations.

5.0 Cultural Resources

Section 106 of the National Historic Preservation Act, as amended, requires the FERC to take into account the effects of its undertakings (including the issuance of Authorizations) on properties listed in or eligible for listing in the National Register of Historic Places, and to afford the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. Trans-Pecos, as a non-federal party, is assisting the FERC in meeting our obligations under Section 106 by preparing the necessary information, analyses, and recommendations as authorized by 36 CFR 800.2(a)(3).

Trans-Pecos conducted a cultural resources survey of the proposed river crossing, access road, and additional temporary work space for the HDD. No cultural resources were identified. On June 1, 2015 the Texas State Historic Preservation Officer recommended that no historic properties would be affected. We concur.

We received a comment regarding the potential for burials and human remains in the Project area. Based on the location of the Trans-Pecos crossing, on a floodplain , with no evidence of pre-contact or historic occupation or activity nearby, Trans-Pecos recommends that the likelihood of encountering burials is low. We concur.

On May 8, 2015 Trans-Pecos wrote to the Apache Tribe of Oklahoma, the Comanche Nation of Oklahoma, the Mescalero Apache Tribe of the Mescalero Reservation, the Tonkawa Tribe of Oklahoma, the Ysleta del Sur Pueblo, the Fort Sill Apache Tribe of Oklahoma, and the White Mountain Apache Tribe to request their comments on the proposed Project. The Comanche Nation of Oklahoma responded that no properties would be affected by the proposed Project. The Ysleta del Sur Pueblo responded that they did not object to the Project but requested that they be notified in the event any artifacts or human remains were unearthed during the Project. On July 23, 2015, we sent our NOI to the same tribes. We have not received any responses to our NOI to date.

Trans-Pecos has prepared a plan in the event any unanticipated cultural resources or human remains are encountered during construction. We find the plan to be acceptable.

Therefore, we have determined in consultation with the Texas State Historic Preservation Officer and Tribes, that the Project as proposed would not affect any properties listed in, or eligible for listing in, the National Register of Historic Places.

6.0 Air Quality and Noise

6.1 Air Quality

Existing Air Quality Conditions

Federal and state air quality standards are designed to protect human health. The EPA has developed National Ambient Air Quality Standards (NAAQS) for air contaminants designated "criteria pollutants" such as nitrogen dioxide and carbon monoxide (CO), the primary pollutants emitted by natural gas-fired compressor facilities. Other relevant criteria pollutants include ozone (O_3), sulfur dioxide (SO_2), and inhalable particulate matter. The NAAQS were set at levels the EPA believes are necessary to protect human health and welfare.

If measured ambient air pollutant concentrations for a subject area remain below the NAAQS criteria, the area is considered to be in attainment with the NAAQS. The Project location is in the TCEQ El Paso-Juarez Air Quality Control Region. Presidio County is considered in attainment for all NAAQS.

Regulations

The Clean Air Act is the basic federal statute governing air pollution. However, the jurisdictional Project does not include permanent stationary air emissions sources that would be subject to permitting provisions under the Clean Air Act. Nor would the Project be subject to the Greenhouse Gas (GHG) Reporting Rule as emissions are expected to be well below the threshold of 25,000 tons per year of carbon dioxide equivalents (CO_{2e})

In a comment letter dated September 4, 2015, the NPS noted the vicinity of the Big Bend National Park and its status as a Mandatory Class I Airshed under the Clean Air Act, 40 CFR Part 81. Trans-Pecos notes in its application that Big Bend National Park is fifty-four miles southeast from the Project at the nearest point of the park border. The Project's emissions would be limited to short-term construction emissions and fugitive dust during the estimated 40 days of construction; therefore, we do not anticipate any measurable air quality impact on Big Bend National Park from the Project.

Emissions Impacts and Mitigation

There are no permanent stationary sources of air emissions, such as a compressor station, nor sources of periodic air emissions, such as blowdown equipment, associated with the jurisdictional Project. Air emissions would be limited to construction equipment and fugitive dust during the 40 days of anticipated construction.

Construction equipment emissions would occur as a result of combustion of gasoline and diesel fuels, most notably the operation of the HDD drilling rig and the on-site generator. Emissions are also expected from on-road vehicles making trips to the Project site and from other miscellaneous equipment operating at the site. Fugitive dust emissions would result from traffic on unpaved roads and earth-moving activities. Project emissions of criteria pollutants and GHGs from all these sources are summarized in table 3.

Table 3. Estimated Equipment Construction Emissions (tons)

Source	Criteria Pollutants						GHG
	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	ROGs	CO_{2e}
Fugitive Dust	2.34	-	-	-	-	-	-
Equipment Emissions	0.63	0.21	4.06	2.85	0.00	0.55	288.25

Note: PM_{10}= "inhalable" particulate matter between 2.5 and 10 microns
$PM_{2.5}$= "fine" particulate matter less than 2.5 microns
NO_X = nitrogen oxides
ROG = Reactive organic gases, a relevant subset of VOCs

The EPA Region 6 submitted a comment letter on August 14, 2015. Among other comments, the EPA requested that the EA include a construction emissions mitigation plan to further control fugitive dust and mobile sources of emissions.

The TCEQ's air quality regulations, codified in Title 30 of the Texas Administrative Code, Part 1, Chapters 1 through 351, of Rule 111.145 *Control of Air Pollution from Visible Emissions and Particulate Matter* (30 TAC 111.145), requires that construction activities that take place on more than 1 acre of land utilize listed methods of dust suppression to control visible emissions and emissions of particulate matter. We therefore anticipate that construction of the intrastate pipeline would be required to control fugitive dust in compliance with TCEQ regulations

Trans-Pecos has committed to controlling fugitive dust through water application from mobile water trucks. To minimize water use, a natural plant cellulose tackifier would be added to the water to increase adhesion retention and durability. In its estimate of fugitive dust generation, Trans-Pecos assumes that watering dust control measures would be 61% effective against dust from bulldozing and grading, the principal dust-generating activity in the proposed Project. Trans-Pecos' proposed mitigation measures to minimize fugitive dust are sufficient and commensurate with the construction work area required for the Project, and therefore, we do not believe that a construction emissions mitigation plan is necessary for the Project.

Based on the temporary, short-term nature of construction activities, and Trans-Pecos' mitigation measures for fugitive dust emissions, we conclude that construction of the Project would not have a significant impact on air quality.

6.2 Noise

The principal activity of the Project construction is the HDD under the Rio Grande River. Noise would be generated during the HDD and pullback of the pipeline. The HDD would require up to 40 days of drilling, and Trans-Pecos anticipates a potential for a 24-hour construction schedule due to site-specific drilling conditions.

In addition, noise would be generated during construction from the use of standard heavy equipment, such as excavators, bulldozers, drill rig, and large trucks. These ancillary construction activities would mostly be conducted during daylight hours.

While anyone in the immediate vicinity of the construction activities would experience an increase in noise during this period, this effect would be temporary. There are no noise-sensitive areas, such as homes or active places of worship, within a mile of the Project site, nor has Trans-Pecos identified any relevant local noise regulations. Therefore, no further noise analysis was conducted nor mitigation measures proposed.

We conclude that construction activities associated with the Project would result in short-term, temporary increases in ambient noise levels, but this impact would not be significant.

7.0 Reliability and Safety

7.1 Safety Standards and Impact on Public Safety

A number of commentors cited safety concerns and described specific incidents on various pipelines, including natural gas transmission lines. The transportation of natural gas by pipeline involves some risk to the public in the event of an accident and subsequent release of gas. The greatest hazard is a fire or explosion following a major pipeline rupture. Methane, the primary component of natural gas, is colorless, odorless, and tasteless. It is not toxic, but is classified as a simple asphyxiate, possessing a slight inhalation hazard. If breathed in high concentration, oxygen deficiency can result in serious injury or death.

The pipeline facilities associated with the Project must be designed, constructed, operated, and maintained in accordance with the DOT *Minimum Federal Safety Standards* in 49 CFR Part 192. The regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. The DOT specifies material selection and qualification; minimum design requirements; and protection from internal, external, and atmospheric corrosion.

The DOT pipeline standards are published in Parts 190-199 of Title 49 of the CFR. For example, Part 192 of 49 CFR specifically addresses natural gas pipeline safety issues, prescribes the minimum standards for operating and maintaining pipeline facilities, emergency shutdowns, and safety equipment (sections 192.163-192.173). Part 192 also requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in a natural gas pipeline emergency. The operator must establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to appropriate public officials. Trans-Pecos would provide the appropriate training to local emergency service personnel before the pipeline is placed in service.

Under a Memorandum of Understanding on Natural Gas Transportation Facilities (Memorandum) dated January 15, 1993, between the DOT and the FERC, the DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas. Section 157.14(a)(9)(vi) of the FERC's regulations require that an applicant certify that it will design, install, inspect, test, construct, operate, replace, and maintain the facility for which an approval is requested in accordance with federal safety standards and plans for maintenance and inspection. If the Commission becomes aware

of an existing or potential safety problem, there is a provision in the Memorandum to promptly alert DOT. The Memorandum also provides for referring complaints and inquiries made by state and local governments and the general public involving safety matters related to pipelines under the Commission's jurisdiction.

Commentors, including county governments, have requested that the Project be built to more strict class location standards. The DOT defines area classifications, based on population density in the vicinity of the pipeline, and specifies more rigorous safety requirements for populated areas. The class location unit is an area that extends 220 yards on either side of the centerline of any continuous 1-mile length of pipeline. The FERC-jurisdictional piece is located at least one mile from any residences and would be drilled under the river. Consequently, there is no reason to modify the applicable class location standards selected for the Project.

7.2 Border Crossing Considerations

The Project location is in the Border Patrol's Big Bend Sector, headquartered in Marfa, Texas. In April 2015, Trans-Pecos representatives met with the Acting Station Chief, and Deputy Assistance Chief Counsel to provide a presentation on the Project. Trans-Pecos agreed to keep Border Patrol management updated on the Project and provide advance notice prior to the start of construction, and to work with them on developing security procedures while construction is on-going to assist their effort to identify construction personnel.

We conclude that Trans-Pecos' Project would represent a minimum increase in risk to the public and we are confident that with the options available in the detailed design of Trans-Pecos' facilities, that they would be constructed and operated safely.

8.0 Cumulative Impacts

In accordance with the NEPA and FERC policy, we considered the cumulative impacts of the Project and other projects in the general area. Cumulative impacts represent the incremental effects of the proposed action when added to other past, present, or reasonably foreseeable future actions, regardless of the agency or party undertaking such other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. We address the direct and indirect impacts of the Project in other sections of this EA.

The purpose of the cumulative impact analysis is to identify and describe cumulative impacts that would potentially result from implementation of the Project. This cumulative impact analysis generally follows the methodology set forth in relevant guidance (CEQ, 1997). Under these guidelines, inclusion of other projects within the analysis is based on identifying commonalities of impacts from other projects with

impacts that would result from the Project. The cumulative impacts analysis includes actions meeting the following three criteria:

- impact a resource area potentially affected by the proposed project;
- cause this impact within all or part of the proposed project area; and
- cause this impact within all, or part, of the time span for the potential impact from the project.

Following CEQ guidance, this analysis considers actions that impact resources also affected by the proposed action, within all or part of the Project area (region of influence (ROI)), and within all or part of the time span of the impacts resulting from the proposed action. We considered projects with either ongoing impacts or "reasonably foreseeable" future actions. We further considered existing or reasonably foreseeable actions expected to affect similar resources during similar time periods with the Project.

For the purposes of this EA, the ROI for cumulative impacts includes the Project's area of direct effect plus the area where impacts on a resource, such as air emissions, may extend beyond the disturbance area. Because the Project's ground disturbing activity would be relatively minor, we limited the cumulative impact region of influence to the visual range from the Project site to a maximum one-mile radius for all resources. Because of its limited scope, the Project would not have a meaningful contribution to cumulative impacts at a larger geographic scale, therefore effects of more distant projects were not assessed because their impacts would not be additive with those of the Project.

Impacts on resources would also occur in Mexico. Although specific data for these activities is not available, the impacts should mostly mirror those on the U.S. side. Further, because the Rio Grande River lies between the two sets of activities, most of the impacts, excluding air and noise, would not be cumulative.

As previously discussed in this EA, Trans-Pecos would perform activities that are not under the jurisdiction of the FERC. Because the planned non-jurisdictional intrastate facilities would be built in close proximity to the Project, there could be cumulative impacts. However, with the exception of a small segment in proximity to the Project, the impacts that would result from construction and operation of the Trans-Pecos intrastate pipeline would be too far removed from the Presidio Border Crossing Project to be additive. That is, nearly all of the impacts for Trans-Pecos intrastate pipeline would occur outside the potential ROI for the Presidio Border Crossing Project. Because most of the Trans-Pecos intrastate pipeline project impacts are neither directly, indirectly, or cumulatively associated with the Presidio Border Crossing Project, they are presented in sections B.8.1, and B.8.3 merely to inform stakeholders and the decision makers. Therefore, we are disclosing a description of the non-jurisdictional Trans-Pecos pipeline and its associated facilities, and the potential environmental effects related to construction

using the best available data provided by Trans-Pecos. Nevertheless, our analysis of cumulative impacts only includes potential impacts within the applicable ROIs.

We identified three potential projects within one mile of the Presidio Border Crossing Project:

1. Biad Chili Company of Las Cruces, New Mexico has optioned for the purchase of a tract of land one-mile west-northwest of the Project location for the construction of a processing plant;
2. the non-jurisdictional custody transfer and metering station located at about milepost 146.4 on Trans-Pecos intrastate pipeline route, about 4,700 feet (approximately 0.9 mile) from the FERC jurisdictional Presidio Border Crossing Project (see figure 1); and
3. the non-jurisdictional fiber optics cable that would be installed via HDD, offset from the natural gas pipeline by 15 feet.

8.1 Description of the Trans-Pecos Intrastate Pipeline

A map showing the planned 148 miles of intrastate pipeline route is provided on figure 2. Trans-Pecos' intrastate pipeline would be an intrastate pipeline as defined in Section 2(16) of the Natural Gas Policy Act and its principal business would be the transportation of Texas-sourced natural gas from the Waha Hub. However, Trans-Pecos also states that they may also transport non-Texas-sourced natural gas, at a future time, in interstate service pursuant to NGA section 311(a)(2) to the Presidio Border Crossing Project.

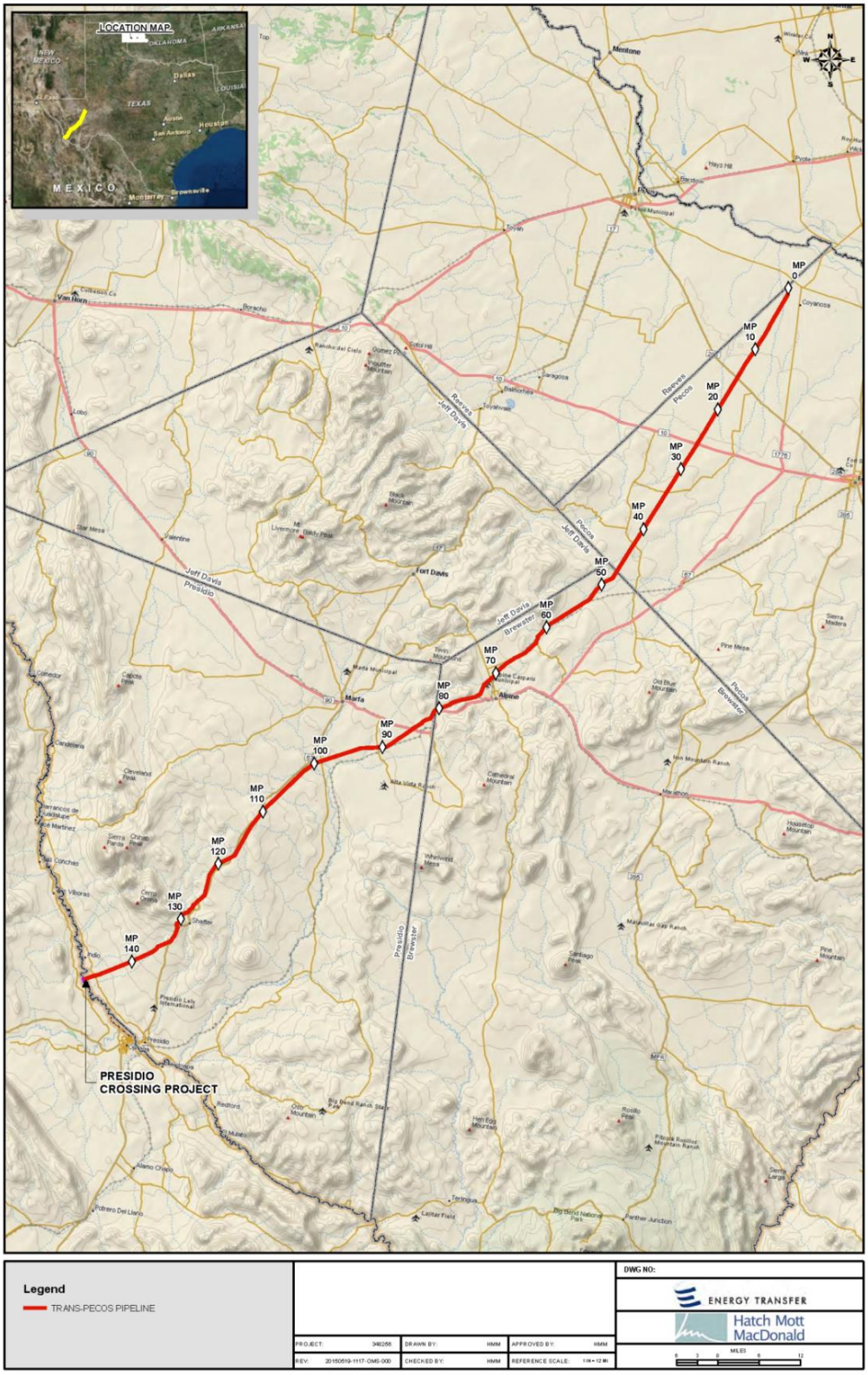
The intrastate project would be constructed within a 125-foot-wide construction corridor with additional temporary workspace at selected locations along the pipeline route. The intrastate pipeline would parallel a railroad for 6.5 miles, powerlines for 29 miles, and would result in new greenfield construction for the remaining 112 miles. The new meter station would be constructed adjacent to County Road 170 at about Mile Post 146.4, approximately 4,700 feet (0.9 mile) from the jurisdictional Project. The intrastate project would temporarily impact about 2,240 acres of land during construction, and would have about 894 acres of permanent impact with a 50-foot-wide permanent easement along the route. The pipeline would be constructed predominantly on privately owned land (146.4 miles), however two tracts of land are owned by the State of Texas in Presidio County between the Rio Grande River and the Chianti mountain range. The Waha Compressor Station would be located on 50 acres at the takeoff for the intrastate pipeline and would consist of fourteen 5,000 horsepower natural-gas fueled compressors. For the first year of operation, the Waha Compressor Station would utilize 10 of the 14 compressors, with a future expansion utilizing all 14 compressors in the 2022/2023 timeframe to meet customer delivery demands. Trans-Pecos states that the Waha Hub is

an existing natural gas pipeline and surface facility complex with a single residence located 1.08 miles to the northwest.

Trans-Pecos intrastate facilities would be within similar arid terrain as the Presidio Border Crossing Project, characterized as Chihuahua Desert, historically dominated by desert grassland. However, historic use of the land (overgrazing, anthropogenic use of groundwater) has resulted in the loss of much of the original grassland to bare soils and dominance by woody plant species.

The Trans-Pecos intrastate pipeline would be installed by conventional pipeline construction techniques and would take approximately 8 months to complete. The anticipated start of the project is the first quarter of 2016. Trans-Pecos states that currently they have completed 138 miles of civil surveys and 135 miles of environmental surveys.

Figure 2. Map of Trans-Pecos Intrastate Pipeline



8.2 Cumulative Impacts within the ROI

The components of the Trans-Pecos intrastate pipeline project that would be within the ROI and therefore could result in additive impacts with the Presidio Border Crossing Project include the 10-acre custody meter station constructed with gravel surfacing on state-owned lands, and the part of the pipeline that would be constructed and operated within one-mile of the ground disturbance associated with the Presidio Border Crossing Project.

Additionally, as described above, the Biad Chili Company of Las Cruces, New Mexico planned processing plant would be constructed on a 5.5 acre parcel of land along the south side of Highway 170 within the salty clay fan desert scrub habitat north of the floodplain of the Rio Grande River. Construction of the processing plant is anticipated to start in the fall of 2016. The processing plant would consist of a 44,000 square foot building, with a surrounding area graveled to support truck deliveries, in total occupying 2.15 acres of the property.

Also, Trans-Pecos fiber optics cable, would be installed in a 1,964-foot-long, 6-inch-diameter conduit installed under the Rio Grande River by HDD. The conduit HDD entry would be offset from the natural gas pipeline HDD by 15 feet and would follow a shallower profile depth of 43 feet below the river but paralleling the natural gas pipeline. Installation of the fiber-optic cable would occur during the same timeframe as the Project pipeline and would not require additional width of permanent easement of the jurisdictional pipeline or additional workspace for its installation.

Geology and Soils

As stated before, the Presidio Border Crossing Project would require minimal ground disturbance limited to a small area (7.1 acres of temporary workspace), and ground contours would be restored after construction. Similarly, construction of the Trans-Pecos intrastate custody and metering station and the Biad processing plant would include localized disturbance. In general, the Trans-Pecos pipeline would require a trench of about 6 feet in depth. Consequently, construction impacts on geology would be minimal. The fiber optics cable would require no additional workspace for its installation. Because of the temporary and minor nature of these project activities, the cumulative effect on geological conditions and soils would be negligible.

Water resources

None of the other projects identified in this analysis would impact surface waters within the ROI, and the shallow excavation required for the projects would not likely have an impact on groundwater resources. The fiber optics cable would be installed via HDD to avoid direct impacts on the Rio Grande River. Therefore, there would be no additive impacts on water resources.

Vegetation and Wildlife

As stated, the Presidio Border Crossing Project would require minimal ground disturbance limited to a small area, and vegetation would be restored after construction. Wildlife could experience temporary disruptions, displacement, and loss of habitat, but would be able to return to the area following completion of activities. Activities and ground disturbance associated with the non-jurisdictional projects in the ROI would also be limited in scope. Some vegetation would be permanently removed for construction of the other projects in the ROI. However, the footprint of these projects is small relative the presence of similar vegetative communities in the region. For the most part, wildlife would be able to return to the area following construction. Because of the temporary and minor nature of project activities, the cumulative effect on vegetation and wildlife would not be significant.

Land Use

The Presidio Border Crossing Project would temporarily affect 7.1 acres of agricultural land, which would be restored upon completion of the Project, and would retain a 50-foot-wide permanent easement for the life of the project (1.3 acres), which would not restrict existing land use. The permanent impact on agricultural land for construction and operation of the custody transfer meter station (10 acres) and the Biad processing plant (5.5 acres) would be maintained as a permanent impact on current land use activities. The fiber optics cable would be installed within the permanent easement of the jurisdictional pipeline, and would have no added impact on land use. Because construction activities associated with the Presidio Border Crossing Project would be temporary and, land use would revert to pre-construction conditions after the Project is complete, the additive impacts on land use would be negligible, and result in minimal cumulative impacts.

Cultural

As described in section B.5.0 of the EA, the Presidio Border Crossing Project would have no effect on cultural resources. Therefore, there would be no additive impacts on cultural resources that could contribute to cumulative impacts on this resource.

Air and Noise

The TCEQ's air quality regulations, codified in Title 30 of the Texas Administrative Code, Part 1, Chapters 1 through 351, of Rule 111.145 Control of Air Pollution from Visible Emissions and Particulate Matter (30 TAC 111.145), requires that construction activities that take place on more than 1 acre of land utilize listed methods of dust suppression to control visible emissions and emissions of particulate matter. The planned Biad Chili Company processing plant would generate fugitive dust and emissions of criteria pollutants from heavy equipment during construction, however detailed

construction emission estimates are not available for that facility. We anticipate that construction of both the intrastate pipeline facilities including the custody transfer meter station, the Biad Chili Company facility, and the fiber optics cable installation would be required to control fugitive dust by TCEQ regulations.

The impacts from construction of the portion of the intrastate pipeline facilities within the immediate vicinity of the Project and from construction of the Biad Chili Company and fiber optics cable (constructed within the same footprint as the Presidio Border Crossing Project) would be considered cumulative with the Project during any overlap in construction schedules. The Project's fugitive dust contribution to local air quality would be minor as an HDD utilizes a wet mud slurry to drill underground which disturbs less land and produces less fugitive dust than conventional pipeline trenching methods. Considering the limited scope of the jurisdictional Project, we do not anticipate significant cumulative air quality impacts to result during construction of the Presidio Border Crossing Project.

Operation of the Biad Chili Company processing plant is expected to generate emissions of criteria pollutants and GHGs from the combustion of propane in plant operations and regular delivery trucks making round trips to the facility. Chili processing plants have also been known to emit unique irritants and odors (Tucker, 2001). However, the Biad Chili Company would likely be required to obtain an operational air permit from the TCEQ.

As the jurisdictional Project would not have operational emissions, it would not contribute any impact on long-term air quality.

Operation of the Biad Chili Company processing plant is expected to generate noise at its site as would be expected of any large industrial facility. Noise would also be generated from delivery trucks along the roads leading to the facility. Meter stations have been known to generate a high-pitched noise during operation. Trans-Pecos describes plans to construct the custody transfer and meter station along the intrastate line near the Project area (0.9 miles), adjacent to County Road 170, over a mile from any noise-sensitive area.

As the jurisdictional Project would not have operational noise and there are no noise-sensitive areas within a mile of the Project, we do not anticipate significant cumulative long-term noise impacts to occur.

Conclusion

The impacts of the Trans-Pecos Border Crossing Project activities would be short-term and include minimal localized ground disturbance. All land disturbed would be restored to its previous condition after construction. Therefore, impacts from the border

crossing activities would not contribute meaningfully to cumulative impacts in the area. Likewise, the construction of Biad Chili Company processing plant, the fiber optics cable, and Trans-Pecos custody meter station and associated pipeline facilities within the ROI would be temporary and land disturbed would be restored to its previous condition, except for the permanent area needed to operate the custody meter station. For these reasons, we conclude that the potential additive impacts would not result in a significant cumulative impact.

8.3 Environmental Impacts Outside of the ROI

Geology and Soils

The intrastate pipeline would cross Tertiary and Quaternary-age sediments through the Chihuahua desert. The area also consists of Pennsylvanian through Permian-age bedrock outcropping in the Mountains of the Marathon Basin consisting of Cretaceous limestone and sandstone.

Per the USGS seismic hazards website, the intrastate pipeline project is located in an area having a 3 to 5 percent PGA, with a small zone of the pipeline located in an area having a PGA of 20 percent.

Given the potential for strong prolonged ground shaking along a small portion of the intrastate pipeline characterized by up to 20 percent PGA, the potential geologic hazards for the Trans-Pecos intrastate pipeline could include liquefaction, lateral spread movement where non-cohesive soils are saturated within 20 feet of ground surface, and seismic-induced slope instability in areas.

As stated in section A.1 of this EA, the Trans-Pecos intrastate pipeline is subject to the jurisdiction of the RCT, and, accordingly, specific environmental concerns must be addressed by the RCT. The RCT has delegated authority by the DOT Pipeline Hazardous Materials Safety Administration (PHMSA) to regulate the safety of Trans-Pecos intrastate pipeline, and Trans-Pecos would have to design, construct, operate, and maintain their pipeline facilities to meet or exceed the PHMSA safety standards.

Construction activities such as clearing, grading, trenching, backfilling, and the movement of construction equipment along the right-of-way could affect soil resources. Clearing of vegetation increases the potential for soil erosion and sedimentation. Construction activities could also affect soil fertility and revegetation potential, and facilitate the dispersal and establishment of weeds. The intrastate pipeline facilities are also considered susceptible to erosion by water, and also considered highly wind erodible.

Trans-Pecos states that it would implement erosion control measures contained within their Storm Water Pollution Prevention Plan to minimize the potential for soil erosion and sediment transport from temporary ground disturbance during construction.

Water Resources

Construction of the Trans-Pecos intrastate pipeline route could affect water resources in several ways. Clearing and grading of stream banks, in-stream trenching, trench dewatering, backfilling, and expansion of access roads could result in increased sedimentation and erosion, modification to hydrological flow, releases of chemical and nutrient pollutant from sediments, and introduction of chemical contaminants such as fuel and lubricants.

Construction of the Trans-Pecos intrastate pipeline route is not expected to have major impacts on groundwater resources. Potential impacts on groundwater would be similar to those described for the Trans-Pecos Border Crossing Project in section B.2 of this EA, which states that construction of Trans-Pecos's facilities would not significantly affect groundwater resources. Trans-Pecos would excavate a shallow trench to construct the pipeline. There are no EPA-designated sole source or protected aquifers in the area. Therefore, the additive impacts on groundwater would not be significant.

The intrastate pipeline would cross 96 named and unnamed streams and tributaries. However, Trans-Pecos states that all waterbody crossings would be constructed to comply with the U.S. Army Corp of Engineers Nationwide Permit 12, and would have no compensatory mitigation requirements due to the lack of intermittent and perennial stream flows and by avoiding spring locations. Trans-Pecos states that the U.S. Army Corp of Engineers' staff has stated that unless stream flows are documented as having a portion of in-channel flows supported by groundwater discharge, then all waters crossed by the proposed route should be considered ephemeral by District standards. As described in section B.2 of this EA, the Trans-Pecos Border Crossing Project would not significantly affect wetlands or waterbodies. The two projects would not be crossing the same waterbodies; therefore, the potential additive impacts on surface water resources would be nonexistent.

Vegetation and Wildlife

As discussed above, the intrastate pipeline would cross the Chihuahua desert consisting of bare soils and woody brush/shrubland. The primary direct effect from pipeline construction would be the cutting, clearing, and removal of existing vegetation within the construction workspace. The degree of impact would depend on the type and amount of vegetation affected, the rate at which the vegetation would regenerate after construction, and the frequency of vegetation maintenance conducted during operation.

Trans-Pecos would comply with its Post Construction Restoration Procedures, which include reseeding of affected lands. Trans-Pecos states that they have consulted with the U.S Department of Agriculture extension service at Sul Ross University for a list of perennial herbaceous species that would be utilized for revegetation.

As discussed, Trans-Pecos has completed 135 miles of environmental surveys, and biologists conducting the surveys have observed 41 avian species, 9 species of mammals and 5 species of reptiles, and have indexed plant communities by species during the survey. Trans-Pecos states that no presence of federally listed species has been documented on, or immediately adjacent to, the intrastate pipeline workspace. Trans-Pecos utilized the FWS web tool, IPaC, and found that the intrastate pipeline project has 32 vertebrate, 10 invertebrate, and 16 plants listed as threatened, endangered, or rare in Brewster County, Texas, and 54 vertebrate, 8 invertebrate, and 24 plant species listed as threatened, endangered, or rare in Presidio County.

Potential effects on wildlife would include noise and displacement associated with the construction activity and the temporary decrease in the amount of available habitat. However, any effects from construction noise and the decrease in habitat would be temporary. During construction activities, more mobile wildlife such as mammals and birds could be displaced to other available nearby habitat. Some smaller, less mobile individuals such as reptiles and amphibians could be unintentionally killed by construction equipment. Given the limited area affected by construction along the 125-foot-wide pipeline construction right of way and Trans-Pecos restoration plans, it is unlikely that there would be significant impacts on the region's wildlife.

Construction activities and vegetation removal could result in the displacement of migratory birds and their avoidance of affected lands. Displacement and avoidance could impact bird migration, nesting, foraging, and mating behaviors. Behavior changes combined with the loss and/or conversion of wildlife habitats could increase the rates of mortality, injury, and stress experienced by migratory birds. Based on the characteristics and habitat requirements of the birds of conservation concern and migratory birds occurring or potentially occurring in the area of Trans-Pecos intrastate pipeline, impacts on wildlife habitat, the amount of wildlife habitat affected, the presence of similar habitats adjacent to and in the vicinity of the constructing and operating the intrastate pipeline would not result in population-level impacts or significant measureable negative impacts on birds of conservation concern or migratory birds.

As discussed in section B.4.0, there would be no effects on federally listed threatened or endangered species or habitat from construction and operation of the FERC jurisdictional Border Crossing Project. Therefore, there would be no cumulative impacts on these species with construction and operation of Trans-Pecos' intrastate pipeline.

Land Use

The land use types that would be crossed by the Trans-Pecos intrastate pipeline route are discussed above. As previously described, a total of 2,240 acres would be affected by construction, and about 894 acres would be maintained for permanent operation of the pipeline and associated facilities. In general, lands required for construction would experience short-term, long-term, or permanent impacts based on the time it would take the land to recover to pre-construction conditions. Lands required for operation would experience permanent impacts, but most of the permanent right-of-way would revegetate. As described in section B.4 of the EA, because the Trans-Pecos Border Crossing Project's ground disturbing activities would occur on 7.1 acres of land used for livestock grazing, there would not be a significant impact on land use. Therefore, additive impacts on land use would not be significant.

Cultural Resources

Trans-Pecos undertook a background review of recorded archaeological sites within 1 mile of the planned intrastate pipeline route. The route is in the vicinity of 16 previously identified pre-contact and historic archaeological sites. The planned route avoids these sites. As discussed above, Trans-Pecos has conducted cultural resources surveys of 135 miles of the non-jurisdictional pipeline to date. The survey identified 4 pre-contact archaeological sites. Trans-Pecos has rerouted the planned intrastate pipeline route to avoid these sites.

We have received comments in the record regarding the potential of the non-jurisdictional intrastate facilities to affect historic properties. The Trans-Pecos applied for a U.S. Army Corps of Engineers Nationwide Permit #12 for the intrastate pipeline facilities. The conditions of the permit specify that if the district engineer determines that the activity may affect any properties listed in, or eligible for listing in, the National Register of Historic Places, the activity is not authorized until the requirements of Section 106 the National Historic Preservation Act have been satisfied. The permit conditions also require the permittee to notify the district engineer if any previously unknown historic, cultural, or archaeological remains and artifacts are discovered in the course of the activity. Therefore, effects to historic properties on the FERC non-jurisdictional facilities will be taken into account by the U.S. Army Corps of Engineers.

As described in section B.5 of the EA, the Trans-Pecos Border Crossing Project would have no effect on cultural resources. Therefore, there would be no potential additive impacts on cultural resources.

Air Quality and Noise

Construction Emissions

Construction of the Trans-Pecos intrastate pipeline would generate emissions of air pollutants and fugitive dust. Emissions of criteria pollutants and GHGs are expected from the combustion of gasoline and diesel fuels in construction equipment, including pipeline lay, bores, supporting equipment, supply trucks, and vehicles used to commute to and from the work locations. Trans-Pecos estimated these construction equipment emissions, listed below in table 4 by Air Quality Control Region. All counties and air quality control regions crossed by the intrastate pipeline are in an unclassified/attainment status for the NAAQS. Fugitive dust would be generated from land clearing, grading, and trench-digging for the intrastate pipeline as well as driving on unpaved roads. With the exception of GHG emissions, air quality impacts would be highly localized and confined primarily to the construction right-of-way.

Table 4. Estimated Construction Equipment Emissions for Intrastate Pipeline by Air Quality Region (tons)

Air Quality Control Region	Criteria Pollutants					GHG
	TSP	NO_X	CO	SO_2	VOCs	CO_{2e}
Midland-Odessa	9.4	75	48	0.10	12	9506
El Paso-Juarez	7.7	61	40	0.08	9.6	7778

Note: Midland-Odessa Air Region includes Pecos and Brewster Counties
El Paso-Juarez Air Region includes Presidio County
NO_X = nitrogen oxides
TSP = Total suspended particulates, a measure of particulate matter

Operational Emissions

Operation of the Trans-Pecos intrastate pipeline would generate emissions of air pollutants and noise from aboveground facilities. The principal aboveground facility would be the 70,000-horsepower Waha Compressor Station in Pecos County, Texas, which is expected to serve several pipelines including the Trans-Pecos intrastate pipeline. Trans-Pecos states that this station will ultimately include the installation of 14 CAT 3616 KBU 5,000 horsepower dual-drive electric/natural gas-driven units. A unit driven by natural gas would generate air emissions, most notably GHGs, NO_x, and fine particulate matter. Emissions of the criteria pollutants would be regulated under the Clean Air Act and the TCEQ as the lead air permitting authority in Texas responsible for this facility. Should the units be electrically-driven, they would not generate criteria air pollutants and may not require permitting under Title V of the Clean Air Act.

On November 8, 2010, the EPA signed a rule that finalizes reporting requirements for the petroleum and natural gas industry under 40 CFR 98. Subpart W of 40 CFR 98 requires petroleum and natural gas facilities that emit 25,000 metric tons or more of carbon dioxide equivalent per year to report annual emissions of specified GHGs from various processes within a facility. Given the size of the facility and the number of individual units, this reporting requirement would most likely apply to the Waha Compressor Station. Along the intrastate pipeline, we estimated the fugitive emission of GHGs using the emission factors in 40 CFR 98, Subpart W, Table W-3, Default Total Hydrocarbon Emission Factors for Onshore Natural Gas Transmission Compression. We can expect that each meter station and mainline block valve would emit 12.3 and 27.0 tons per year of CO_{2e} respectively.

Construction Noise

Noise would be generated from the construction equipment which, barring unlikely nighttime construction, would operate during daylight hours only. Noise impacts would also be temporary and short term, attenuating as the distance from the noise source increases.

These noise impacts from construction of the portion of the intrastate pipeline within the immediate vicinity of the Project would be considered cumulative with the Project during any overlap in construction schedules. Construction equipment emissions and noise from the Project would be greater than construction of the proximate pipeline portion given the need to using drilling equipment on a 24-hour schedule for up to 40 days. While the cumulative impacts of a concurrent construction schedule would be greater, we conclude the impacts would be short-term, temporary, and limited to within a mile of the Project area of little impact to populated or sensitive areas.

Operational Noise

Operational noise from the Trans-Pecos intrastate pipeline and associated facilities would be expected from the Waha Compressor Station and, to a lesser degree, from the meter stations along the pipeline. Trans-Pecos states that the nearest noise-sensitive area to the new Waha Compressor Station is a single residence 1.08 miles northwest of the planned facility boundary. They calculated the noise impact from full-capacity operations at this receptor to be 33 decibels. Meter stations have been known to generate a high-pitched noise during operation. As discussed in section 8.2, Trans-Pecos describes plans to construct a meter station along the intrastate line near the Project area, adjacent to County Road 170, over a mile from any noise-sensitive area.

As the jurisdictional Project would not have operational noise and there are no noise-sensitive areas within a mile of the Project, we do not anticipate significant cumulative long-term noise impacts to occur.

Safety

We received comments from individual stakeholders that the intrastate pipeline be built to more strict locations standards. The City of Alpine, Texas further commented and requested that where the intrastate pipeline is constructed within the City's "Extraterritorial Jurisdiction"[8] that it is constructed in compliance with CFR Title 49 part 192 Class 3 requirements and that the pipeline is buried to a depth of 10 feet. The City of Alpine and its extraterritorial jurisdictional area are located at a distance of about 70 miles from the Presidio Border Crossing Project.

Class Locations

The DOT defines area classifications, based on population density in the vicinity of the pipeline, and specifies more rigorous safety requirements for populated areas. The class location unit is an area that extends 220 yards on either side of the centerline of any continuous 1-mile length of pipeline. The four area classifications are defined below:

Class 1	Location with 10 or fewer buildings intended for human occupancy.
Class 2	Location with more than 10 but less than 46 buildings intended for human occupancy.
Class 3	Location with 46 or more buildings intended for human occupancy or where the pipeline lies within 100 yards of any building, or small well-defined outside area occupied by 20 or more people on at least 5 days a week for 10 weeks in any 12-month period.
Class 4	Location where buildings with four or more stories aboveground are prevalent.

[8] Title 2, subtitle c, chapter 42, subpart A, Sec. 42.001 of the Texas State Local Government Code: PURPOSE OF EXTRATERRITORIAL JURISDICTION. The legislature declares it the policy of the state to designate certain areas as the extraterritorial jurisdiction of municipalities to promote and protect the general health, safety, and welfare of persons residing in and adjacent to the municipalities. The extraterritorial jurisdiction of a municipality is the unincorporated area that is contiguous to the corporate boundaries of the municipality and that is located: within one-half mile of those boundaries, in the case of a municipality with fewer than 5,000 inhabitants; (2) within one mile of those boundaries, in the case of a municipality with 5,000 to 24,999 inhabitants; (3) within two miles of those boundaries, in the case of a municipality with 25,000 to 49,999 inhabitants; (4) within 3-1/2 miles of those boundaries, in the case of a municipality with 50,000 to 99,999 inhabitants; or (5) within five miles of those boundaries, in the case of a municipality with 100,000 or more inhabitants.

Class locations representing more populated areas require higher safety factors in pipeline design, testing, and operation. Trans-Pecos has not disclosed the class locations for the non-jurisdictional pipeline but they would, at a minimum, meet the DOT regulations. If a subsequent increase in population density adjacent to the right-of-way results in a change in class location for the pipeline, Trans-Pecos would reduce the maximum allowable operating pressure or replace the segment with pipe of sufficient grade and wall thickness, as required to comply with the DOT requirements for the new class location.

High Consequence Areas

The DOT requires all operators of natural gas transmission pipelines to notify the DOT of any significant incident and to submit a report within 30 days. During the 20 year period from 1994 through 2013, a total of 1,237 significant incidents were reported on the more than 303,000 total miles of natural gas transmission pipelines nationwide, an average of 62 significant incidents, 10 injuries and 2 fatalities per year.

The dominant causes of pipeline incidents are corrosion and pipeline material, weld or equipment failure constituting 48.2 percent of all significant incidents. Outside force, excavation, and natural forces are the cause in 34.5 percent of significant pipeline incidents. The majority of fatalities from pipelines are due to local distribution pipelines, not interstate transmission lines regulated by FERC nor intrastate high-pressure transmission lines. Overall, the DOT data shows that natural gas transmission pipelines continue to be a safe, reliable means of energy transportation.

Cumulative Impacts Conclusion

In general, small scale projects, such as the Biad processing plant, fiber optics cable, and the Trans-Pecos's FERC jurisdictional border-crossing facilities, with minimal impacts and of short duration, would not contribute significantly to cumulative impacts. We conclude that Trans-Pecos's FERC jurisdictional Project would represent a negligible contribution to the overall cumulative impacts in the Project area.

C. ALTERNATIVES

In accordance with NEPA and Commission policy, we evaluated alternatives to the Project. Our evaluation criteria included whether the alternatives would: 1) provide a significant environmental advantage over the Project; 2) meet the Project's stated objectives; and 3) be technically and economically feasible and practical.

Under the no-action alternative, Trans-Pecos would not construct the Project. While this alternative would eliminate the potential impact on the environment, Trans-Pecos stated purpose would not be met, to provide natural gas to meet the needs of expanding electric generation and industrial customers in Mexico. Other natural gas companies could construct projects in substitute for the natural gas supplies offered by Trans-Pecos. Such alternative projects could require the construction of additional and/or new pipeline facilities in the same or other locations to transport the gas volumes proposed by the Project. These projects would result in their own set of specific environmental impacts that could be equal to or greater than those described for the current proposal. Furthermore, based on the limited construction impacts and lack of sensitive resources in the Project area, an analysis of alternative crossing locations was not warranted. Therefore, we conclude that the proposed Project is the preferred alternative that can meet the Project objectives.

D. STAFF'S CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis in this EA, the mitigation measures proposed by Trans-Pecos, and the implementation of our recommendations below, we have determined that if constructed in accordance with its application and supplements, approval of this proposal 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. If the Commission approves the Project, we recommend that the Commission Order contain the following conditions:

1. Trans-Pecos 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. Trans-Pecos must:

    a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
    b. justify each modification relative to site-specific conditions;
    c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
    d. receive approval in writing from the Director of OEP **before using that modification**.

2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during activities associated with the construction and operation of the Project. This authority shall allow:

    a. the modification of conditions of the Order; and
    b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from Project construction and operation.

3. **Prior to any construction of facilities,** Trans-Pecos shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the

environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

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

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

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

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

   a. implementation of cultural resources mitigation measures;
   b. implementation of endangered, threatened, or special concern species mitigation measures;
   c. recommendations by state regulatory authorities; and
   d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

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

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

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

7. Beginning with the filing of its Implementation Plan, Trans-Pecos shall file updated status reports with the Secretary on a **biweekly basis until all construction and restoration activities are complete.** On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

a. an update on Trans-Pecos's efforts to obtain the necessary federal authorizations;
b. the construction status of the Project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
c. a listing of all problems encountered and each instance of noncompliance observed by the EI during the reporting period (both for the conditions

imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);

d. a description of corrective actions implemented in response to all instances of noncompliance, and their cost;
e. the effectiveness of all corrective actions implemented;
f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
g. copies of any correspondence received by Trans-Pecos from other federal, state or local permitting agencies concerning instances of noncompliance, and Trans-Pecos's response.

8. Trans-Pecos shall employ at least one EI. The EI shall be:

a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;
b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
d. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
e. responsible for maintaining status reports.

9. **Prior to receiving written authorization from the Director of OEP to commence construction of any Project facilities**, Trans-Pecos shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).

10. Trans-Pecos must receive written authorization from the Director of OEP **before placing the Project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of all areas affected by the Project are proceeding satisfactorily.

11. **Within 30 days of placing the authorized facilities in service**, Trans-Pecos shall file an affirmative statement with the Secretary, certified by a senior company official:

a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
b. identifying which of the Authorization conditions Trans-Pecos has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.

12. **Prior to construction,** Trans-Pecos shall file with the Secretary a revised *Directional Drilling Contingency Plan* for review and written approval by the Director of OEP that includes:

a. measures to be implemented for collection and disposal of an inadvertent release of drilling mud into the Rio Grande River; and
b. procedures to notify the IBWC of any release of drilling mud into the river.

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