

# **EXECUTIVE SUMMARY**

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## **INTRODUCTION**

The staffs of the Federal Energy Regulatory Commission (Commission or FERC); the U.S. Department of the Interior, Bureau of Land Management (BLM); the U.S. Department of Agriculture, Forest Service (FS); the U.S. Department of Transportation (DOT), Office of Pipeline Safety; the U.S. Department of the Interior, Bureau of Indian Affairs; and the Navajo Nation, collectively referred to as the Agency Staffs, have prepared this draft environmental impact statement (EIS) for the Phoenix Expansion Project to fulfill the requirements of the National Environmental Policy Act (NEPA). The purpose of this document is to inform the public and the permitting agencies about the potential adverse and beneficial environmental impacts of the proposed project and its alternatives, and recommend mitigation measures that would reduce the significant adverse impacts to the maximum extent possible.

This EIS has been filed with the U.S. Environmental Protection Agency and a formal Notice of Availability was published in the Federal Register. The public has 45 days after the date of publication in the Federal Register to review and comment on the draft EIS both in the form of written comments and at public meetings to be held in the project area. All substantive comments received on the draft EIS related to environmental issues will be addressed in the final EIS.

## **PROJECT BACKGROUND**

On November 10, 2005, Transwestern Pipeline Company, LLC (Transwestern) filed a request with the FERC to implement the Commission's Pre-Filing Process for the Phoenix Expansion Project. On November 22, 2005, the FERC granted Transwestern's request and established a pre-filing docket number (PF06-04-000) to place information related to the project into the public record. The cooperating agencies agreed to conduct their environmental reviews of the project in conjunction with the Commission's Pre-Filing Process.

On September 15, 2006, Transwestern filed an application with the Commission under section 7(c) of the Natural Gas Act and Parts 157 and 284 of the Commission's regulations. Under Docket No. CP06-459-000, Transwestern is seeking a Certificate of Public Convenience and Necessity (Certificate) to construct, own, and operate an expansion of its existing interstate natural gas transmission pipeline system.

## **PROPOSED ACTION**

Transwestern proposes to expand its existing natural gas transmission pipeline system in New Mexico and Arizona, and would acquire an undivided interest in the existing 36.7-mile-long, 24-inch-diameter East Valley Lateral, which extends between Pinal and Maricopa Counties, Arizona. The Phoenix Expansion Project would serve the increasing demand for energy in the fast-growing Phoenix area by delivering up to 500 million cubic feet per day (MMcfd) of natural gas to customers in the area. The project would also add natural gas supply reliability and provide an alternative source of competitively priced natural gas to Arizona markets. Specifically, the project facilities would include:

- 24.6 miles of new 36-inch-diameter pipeline loop<sup>1</sup> (the San Juan Lateral Loops A and B) extending along the existing San Juan Lateral in San Juan and McKinley Counties, New Mexico;
- 259.3 miles of new 42- and 36-inch-diameter lateral<sup>2</sup> pipeline (the Phoenix Lateral), consisting of 95.7 miles of 42-inch-diameter pipeline extending from milepost (MP) 0.0 in Yavapai County, Arizona to MP 95.2 in Maricopa County, Arizona, and 163.6 miles of 36-inch-diameter pipeline extending from MP 95.2 in Maricopa County, Arizona to MP 255.1 in Pinal County, Arizona;
- 1.4 miles of new 24-, 20-, 16-, and 6-inch-diameter lateral pipeline (the customer laterals) connecting the Phoenix Lateral to meter stations that are not located immediately adjacent to the Phoenix Lateral right-of-way;
- piping modifications at the existing Bloomfield Compressor Station in San Juan County, New Mexico and the installation of pressure controls on valves at the existing Seligman Compressor Station No. 1 in Mohave County, Arizona;
- installation of the Ash Fork Facility at MP 0.0 of the Phoenix Lateral in Yavapai County, Arizona including 2 filter separators, odorant injection facilities, and telecommunications equipment; and
- installation of 4 taps, 31 valves, 11 meter stations, 6 pig launchers, and 3 pig receivers.

The project would be constructed in two overlapping phases. The first phase would involve construction of the Phoenix Lateral, customer laterals, and associated aboveground facilities including the Ash Fork Facility. Construction of these facilities is expected to occur over a 12- to 13-month period beginning in the fall of 2007. The second phase would involve the construction of the San Juan Lateral Loops and the compressor station modifications. Transwestern estimates that these facilities would be constructed over a 3-month period beginning in early 2008.

## **PUBLIC OUTREACH AND COMMENTS**

In January and March of 2006, Transwestern held open houses in Prescott Valley, Sun City West, Black Canyon City, Maricopa, and Casa Grande, Arizona; and Bloomfield, New Mexico, to provide the public an opportunity to learn about the project and express their concerns. The FERC staff attended the open houses to explain the NEPA environmental review process to interested stakeholders and take comments about the project.

On February 6, 2006, the Commission issued a Notice of Intent (NOI) that briefly described the project and the EIS process. The NOI also invited written comments on the environmental issues to be addressed in the EIS and listed the date and location of four public scoping meetings to be held in the project area. The NOI was published in the Federal Register and mailed to more than 5,800 individuals and organizations.

The four public scoping meetings were held to provide an opportunity for agencies and the general public to learn more about the proposed project and participate in the environmental analysis by

<sup>1</sup> A loop is a segment of pipeline that is usually installed adjacent to an existing pipeline and connected to it at both ends. The loop allows more gas to be moved through the system.

<sup>2</sup> A lateral pipeline typically takes gas from the main system to deliver it to a customer, local distribution system, or another interstate transmission system.

commenting on the issues to be addressed in the EIS. The first meeting was held in Black Canyon City, Arizona on February 27, 2006; the second meeting was in Casa Grande, Arizona on February 28, 2006; the third meeting was in Prescott Valley, Arizona on March 1, 2006; and the fourth meeting was held in Avondale, Arizona on March 2, 2006.

On March 2, May 11, and June 28, 2006, the FERC staff conducted interagency scoping meetings in the project area to solicit comments and concerns about the project from other jurisdictional agencies. The transcripts of the public scoping meetings, a summary of the interagency scoping meetings, and all written scoping comments are part of the public record for the Phoenix Expansion Project and are available for viewing on the FERC Internet website (<http://www.ferc.gov>).<sup>3</sup>

The FERC staff also attended or conducted other meetings in the project area. These meetings included an appearance before the Resources Committee of the Navajo Nation Council on February 23, 2006; a meeting with the Arizona State Land Department on March 1, 2006; a meeting with the Town of Prescott Valley, Arizona on May 10, 2006; meetings with the City of Casa Grande, Arizona on January 12 and June 28, 2006; and a meeting with Native American tribes on June 28, 2006. The FERC staff also attended technical conferences in the City of Casa Grande and the Town of Buckeye, Arizona on December 13 and 14, 2006, respectively, to discuss route alternatives and potential project-related impacts on approved and proposed developments in those areas. In addition to participating in numerous meetings in the project area, the FERC staff conducted aerial inspections of the proposed route on January 10 and May 10, 2006, and a ground reconnaissance of the proposed route in the Buckeye, Arizona area on December 14, 2006.

## **ENVIRONMENTAL IMPACTS**

The Agency Staffs evaluated the impacts on geology; soils; water resources; vegetation; wildlife and aquatic resources; special status species; land use, recreation and special interest areas, and visual resources; socioeconomics; cultural resources; air quality and noise; and reliability and safety. The cumulative impacts of the project with current and foreseeable projects in the area were also considered. The most frequently raised issues associated with the project were related to general pipeline safety and route alternatives to reduce impacts on existing, approved, and proposed developments. Other issues raised related to protection of waterbodies and the special status species they support; impacts on soils, vegetation, cultural resources, and visual resources; and concerns regarding restoration of the right-of-way.

Construction of the project would temporarily affect about 5,951.3 acres of land, the majority of which (66 percent) would be rangeland. Operation of the project would affect 2,073.3 acres, including 1,730.7 acres of permanent right-of-way, 14.5 acres of aboveground facility sites, and 328.1 acres of permanent access roads. To reduce construction impacts, Transwestern would implement its project-specific Upland Erosion Control, Revegetation, and Maintenance Plan (UECRM Plan) for construction in upland areas and its project-specific Wetland and Waterbody Construction and Mitigation Procedures (WWCM Procedures) for construction across wetlands and waterbodies. Transwestern would also implement its project-specific Spill Prevention and Response Procedures (SPR Procedures) and its Restoration Plan. The SPR Procedures identifies measures to reduce the likelihood of a spill and to contain and clean up a spill should one occur. The Restoration Plan describes preconstruction planning, construction activities, noxious weed management measures, and post-construction monitoring and reporting efforts that would be implemented to minimize construction impacts and enhance successful

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<sup>3</sup> Using the "eLibrary" link, select "General Search" from the eLibrary menu and enter the docket number excluding the last three digits in the "Docket Number" field (i.e., PF06-04 and CP06-459). Be sure to select an appropriate date range.

revegetation in an arid environment. In consultation with the cooperating agencies, we<sup>4</sup> are recommending that Transwestern revise the UECRM Plan, the WWCM Procedures, and the Restoration Plan to include additional measures to further minimize the impacts of the project on soils and vegetation and improve revegetation potential in the arid environment of the project area.

The proposed project would cross 8 perennial waterbodies and approximately 791 intermittent and ephemeral waterbodies. Transwestern proposes to cross intermittent and ephemeral waterbodies that are dry at the time of construction using the dry open-cut method, which involves standard upland cross-country construction techniques. Intermittent and ephemeral waterbodies that are flowing at the time of construction would be crossed using the wet open-cut method. Two of the waterbodies that would be crossed by the project are considered sensitive because of the special status species and critical habitat they are known to support. The San Juan River in New Mexico supports the federally listed endangered Colorado pikeminnow and razorback sucker; the Verde River in Arizona supports the federally listed threatened spikedace and its designated critical habitat.

Although subsurface conditions at the San Juan River may not be conducive to a successful horizontal directional drill (HDD) installation, in response to comments received from the U.S. Army Corps of Engineers, Transwestern proposes to attempt an HDD crossing of the river. If the HDD is not successful, Transwestern proposes to cross the San Juan River using a modified wet open-cut method. Transwestern has submitted site-specific HDD and wet open-cut crossing plans for the San Juan River. We have determined that the HDD crossing plan is acceptable. However, due to the presence of the federally listed endangered Colorado pikeminnow and razorback sucker in the river and the uncertainty over whether the river can be successfully crossed using the HDD method, the FERC staff is initiating formal consultation with the U.S. Fish and Wildlife Service (FWS) regarding the impact of the project on these species as discussed below.

Transwestern proposes to cross the Verde River using the flume method. The Verde River is considered an intermediate waterbody because it is approximately 20 feet wide at the crossing location. In accordance with the WWCM Procedures, in-stream construction activities (not including blasting and other rock breaking measures) would be completed within 48 hours, unless site-specific conditions make completion within 48 hours infeasible. The FERC staff is initiating formal consultation with the FWS to address the potential effects of the project on the spikedace as discussed below.

Based on consultation with the FWS, 16 federally listed threatened and endangered species were identified as potentially occurring in the proposed project area in New Mexico and Arizona. Eight species would not be affected due to lack of habitat in the project area or the unlikelihood of occurrence and have been eliminated from further consideration. In consultation with the cooperating agencies, we have determined that, with the implementation of Transwestern's UECRM Plan, WWCM Procedures, SPR Procedures, Restoration Plan, and HDD Plan, and our additional recommendations, the proposed project is not likely to adversely affect five species. Three species (the Colorado pikeminnow, the razorback sucker, and the spikedace) were identified as likely to be adversely affected by the proposed project. We have determined that the proposed project is not likely to result in the destruction or adverse modification of the designated critical habitat for the spikedace at the Verde River.

In compliance with section 7 of the Endangered Species Act, the FERC staff is submitting a Biological Assessment to the FWS with a request for concurrence with these determinations of effect and to initiate formal consultation. In response, the FWS would issue a Biological Opinion (BO) as to whether or not the federal action would likely jeopardize the continued existence of the Colorado

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<sup>4</sup> "We," "us," and "our" refer to the environmental staff of the Federal Energy Regulatory Commission's Office of Energy Projects, also referred to in this draft EIS as the FERC staff.

pikeminnow, the razorback sucker, and the spikedace. Because the FERC staff has not completed its section 7 responsibilities, we are recommending that Transwestern not begin construction activities until it completes any outstanding species-specific surveys and the FERC receives comments from the FWS regarding the preconstruction survey reports, the FERC completes formal consultation with the FWS, and Transwestern receives written notification from the Director of the Office of Energy Projects (OEP) that construction and/or implementation of conservation measures may begin.

The Phoenix Expansion Project would cross or abut 7 developments that are under construction, 13 approved developments, and 16 proposed developments. At this time, the proposed construction work area is within 50 feet of two existing residences within these developments. Transwestern has committed to working with developers and local governments to reduce the impact of the proposed project on developments. Due to the rapid rate of development in the Phoenix metropolitan area, Transwestern would provide the FERC with quarterly updates of residences and structures within 50 feet of the construction work area. We are recommending that Transwestern prepare and file site-specific residential and structural implementation plans for all residences, businesses, and structures within 50 feet of the construction work area before construction.

In response to comments regarding impacts on existing, approved, and proposed developments, the FERC staff evaluated route alternatives and route variations in an effort to avoid or reduce these impacts and is recommending that Transwestern develop variations that would avoid direct impact on four specific developments. Additional discussion of the alternatives considered is presented below.

The proposed project would cross 64.7 miles of BLM-managed land under the jurisdiction of the Farmington Field Office in New Mexico and the Hassayampa and Lower Sonoran Field Offices in Arizona. About 9.0 miles and 20.4 miles of the Phoenix Lateral would be located within the Kaibab National Forest and Prescott National Forest, respectively. A review of the BLM's and FS' resource management plans indicates that the proposed project would substantially conform to these plans in their current forms or when recently revised versions of these plans are adopted.

Several areas on BLM-managed and Forest System lands are particularly known for their visual resources. Measures Transwestern would implement to reduce impacts on vegetation and improve revegetation potential, which would reduce impacts on visual resources, are included in its Restoration Plan. Implementation of mitigation measures approved by the BLM and the FS and included in a revised Restoration Plan that addresses the concerns of these agencies would reduce the adverse visual effects of pipeline construction and maintenance.

Transwestern has completed cultural resources investigations for the majority of the proposed pipeline corridor and ancillary facilities. A total of 222 cultural resources were recorded during these surveys. Based on consultations with the Tribal Historic Preservation Officers, State Historic Preservation Officers (SHPOs), and staff of other federal agencies, the FERC has determined that the project would have an effect on historic properties. Therefore, a Programmatic Agreement has been prepared for the project that provides for developing and implementing treatment plans to minimize effects on historic properties, and completing studies to identify and to evaluate these effects.

To ensure that the FERC's responsibilities under the National Historic Preservation Act and its implementing regulations are met, we are recommending that Transwestern defer implementation of any treatment plans/mitigation measures (including archaeological data recovery), construction of facilities, and use of all staging, storage, or temporary work areas and new or to-be-improved access roads until it files the remaining survey reports, required treatment plans, and the comments of the consulting parties on all cultural resources reports and plans submitted for review; and the Director of OEP notifies Transwestern that treatment plans/mitigation measures may be implemented or construction may proceed.

The pipeline and aboveground facilities associated with the Phoenix Expansion Project would be designed, constructed, operated, and maintained to meet or exceed the DOT Minimum Federal Safety Standards in Title 49 Code of Federal Regulations Part 192 and other applicable federal and state regulations. By designing and operating the proposed project in accordance with the applicable standards, the project would not result in a significant increased public safety risk.

Detailed descriptions of the impacts of the project, Transwestern's proposed mitigation measures, and our measures to further avoid, minimize, and mitigate these impacts are presented in section 4.0 of this draft EIS.

## **ALTERNATIVES CONSIDERED**

The No Action and Postponed Action Alternatives were considered. If the FERC and/or another federal agency with approval authority were to deny or postpone action on Transwestern's applications, Transwestern would be unable to meet its goals of delivering up to 500 MMcfd of natural gas to Arizona markets. The likely outcome of this decision would be the construction of other new pipeline facilities. In addition, no existing pipeline system was identified with the available capacity to deliver the volume of natural gas that would be delivered by Transwestern without expanding its system. Construction of new pipeline facilities or the expansion of an existing system would result in environmental impacts that could be less than, similar to, or greater than the impacts associated with the Phoenix Expansion Project.

Eight route alternatives to the proposed alignment of the Phoenix Lateral were considered. All of these route alternatives were eliminated because they would not be environmentally preferable, would pose significant constructability constraints, or would create additional safety and reliability concerns when compared to their corresponding segments of the Phoenix Lateral.

Six route variations that could potentially reduce impacts on specific, localized resource issues or communities along the proposed route of the Phoenix Lateral were evaluated. Four of the six route variations would not offer an environmental advantage or reduce impact on the communities in which they would be located when compared to the corresponding segment of the proposed route and, therefore, were eliminated. For one of the remaining variations, the Waste Management Arizona Variation, we are recommending that Transwestern file detailed information regarding the route variation and further justification for the proposed alignment for analysis in the final EIS. For the remaining variation, the Pinal County El Paso Natural Gas Company (EPNG) Collocation Variation, we are recommending that Transwestern work with EPNG to develop and file variations that would avoid placing permanent right-of-way on platted lots in four specific approved or proposed developments in Pinal County.

Approximately 86 percent of the proposed pipeline facilities would be constructed within or adjacent to existing rights-of-way. Transwestern has proposed 31 deviations from existing rights-of-way based on site-specific terrain conditions, existing structures, federal special-use designations, or residential/commercial development that has occurred along these existing rights-of-way. Thirty of these deviations were determined to be warranted and environmentally acceptable. The remaining variation is necessary to avoid a flood control structure, but could have an impact on a proposed development referred to as Desert Creek. We are recommending that Transwestern work with the developer of Desert Creek to develop measures that would avoid or reduce impacts on the development and file a report of these measures for analysis in the final EIS.

## **CONCLUSIONS**

The Agency Staffs have determined that construction and operation of the Phoenix Expansion Project would result in limited adverse environmental impacts. These limited impacts would be most

significant during the period of construction. This determination is based on a review of the information provided by Transwestern and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, tribal, state, local agencies, and individual members of the public. The Agency Staffs have concluded that the project would be an environmentally acceptable action. Although many factors were considered in this determination, the principal reasons are:

- 86 percent of the proposed pipelines would be within or adjacent to existing rights-of-way;
- the project would be consistent with or in conformance with all identified comprehensive plans;
- Transwestern would implement its UECRM Plan, WWCM Procedures, Restoration Plan, SPR Procedures, Blasting Procedure, Trenching and Wildlife Guidelines, Dust Control Plan, Fire Prevention and Suppression Plan, Forest Service Access Management Plan, HDD Plan, and Unanticipated Discovery Plan to protect natural and cultural resources and residential areas during construction and operation of the project;
- Transwestern would implement all site-specific stipulations in the Plan of Development that would be developed by the BLM, the FS, and the U.S. Department of the Interior, Bureau of Reclamation;
- use of the HDD method would avoid disturbance to the bed and banks of the San Juan River and associated riparian areas. If the HDD fails and the alternative wet open-cut method were used, the short-term impact of a wet open-cut crossing would be environmentally acceptable and the terms and conditions that are expected to be included in the FWS' BO would ensure that the project would not jeopardize the continued existence of the Colorado pikeminnow and the razorback sucker;
- the appropriate consultations with the FWS, the SHPOs, and Native American tribes would be completed before Transwestern would be allowed to begin construction in any given area; and
- an environmental inspection and mitigation monitoring program would ensure compliance with all mitigation measures that become conditions of the FERC Certificate and other approvals.

In addition, the Agency Staffs developed specific mitigation measures and we have recommended that Transwestern develop and implement other plans to further reduce the environmental impact that would otherwise result from construction of the project. The FERC staff is recommending that these mitigation measures and plans be attached as conditions to any authorization issued by the Commission. These mitigation measures are presented in section 5.3.