

EXECUTIVE SUMMARY

This final environmental impact statement (EIS) for the Fayetteville/Greenville Expansion Project (Project) proposed by Texas Gas Transmission, LLC (Texas Gas) has been prepared by the staff of the Federal Energy Regulatory Commission (FERC or Commission) to fulfill the requirements of the National Environmental Policy Act (NEPA), the Commission's implementing regulations (Title 18 Code of Federal Regulations (CFR) Part 380), and the Council on Environmental Quality Regulations (CEQ) for implementing NEPA (Title 40 CFR Parts 1500-1508). The purpose of this document is to make public our¹ analysis of the environmental impacts that would likely result from the construction and operation of the proposed Project. This document has been prepared in cooperation with the following federal agencies: the U.S. Fish and Wildlife Service (FWS), the National Park Service (NPS), the Natural Resource Conservation Service (NRCS); and the Arkansas Natural Heritage Commission (ANHC).

PROJECT BACKGROUND

On December 15, 2006, Texas Gas filed a request with the FERC to use its pre-filing process for the proposed Project. This request was approved on December 28, 2006, and a pre-filing Docket No. (PF07-2-000) was established to place information filed by Texas Gas and related documents issued by the FERC into the public record.

On July 11, 2007, Texas Gas filed an application with the FERC for a Certificate of Public Convenience and Necessity (Certificate) to construct, operate, and maintain natural gas pipeline, compression, and related facilities in Arkansas and Mississippi. The application was filed in Docket No. CP07-417-000 pursuant to Section 7(c) of the Natural Gas Act (NGA) and Part 157 of the Commission's regulations. We have prepared our analysis based on this application and subsequent filings by Texas Gas, and on comments filed about the scope and impact of the Project.

PROPOSED ACTION

The Project would be designed to transport up to 853 million cubic feet per day (MMcf/d) of natural gas through the proposed Fayetteville Lateral and up to 751 MMcf/d of natural gas through the proposed Greenville Lateral. The proposed facilities would include:

- 166.2 miles of 36-inch-diameter pipeline in Conway, Faulkner, Cleburne, White, Woodruff, St. Francis, Lee, and Phillips Counties, Arkansas; and Coahoma County, Mississippi (Fayetteville Lateral);
- 96.4 miles of 36-inch-diameter pipeline in Washington, Sunflower, Humphreys, Holmes, and Attalla Counties, Mississippi (Greenville Lateral);
- 0.8 mile of 36-inch-diameter tie-in pipeline in Attalla County, Mississippi (Kosciusko 36-inch Tie-in Lateral);
- 0.4 mile of 20-inch-diameter tie-in pipeline in Attalla County, Mississippi (Kosciusko 20-inch Tie-in Lateral);

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

- a 10,650-horsepower (hp) compressor station at milepost 96.4 on the Greenville Lateral in Attala County, Mississippi (Kosciusko Compressor Station);
- pipe modifications at Texas Gas's existing Greenville Compressor Station in Washington County, Mississippi; and
- 29 metering and regulating (M&R) stations, 30 interconnects (tie-ins), 21 main line valves (MLVs), and three pig launchers and three pig receivers.²

The Project would be constructed in two phases over about 8 months. Phase I would include construction of the first 66 miles of the Fayetteville Lateral and related facilities from Conway County to the Bald Knob area of White County, Arkansas. Phase II would include construction of the remaining 100 miles of the Fayetteville Lateral from White County, Arkansas to Coahoma County, Mississippi, and the entire Greenville Lateral, including the Kosciusko Compressor Station and tie-in laterals. Texas Gas proposes beginning construction of both Phases I and II in June 2008. However, Phase I would be placed in service by August 1, 2008, and Phase II would be placed in service by January 1, 2009.

PUBLIC OUTREACH AND COMMENTS

On March 6, 2007, we issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Texas Gas Fayetteville/Greenville Expansion Project and Request for Comments on Environmental Issues and Notice of Public Scoping Meetings* (NOI). The NOI explained the pre-filing process, described the proposed Project, and provided a preliminary list of environmental issues. The intent of the pre-filing process is to initiate scoping early in the project planning process and to encourage citizens, governmental entities, and other interested parties to identify and resolve issues prior to an application being formally filed with the FERC. The NOI was sent to interested parties, including affected landowners; federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers; and other interested parties. We conducted public scoping meetings in Lexington, Mississippi, and in Forrest City and Searcy, Arkansas, on March 19, 20, and 21, 2007, respectively, to provide an opportunity for the public to comment on the environmental issues to be addressed in the EIS.

On July 20, 2007, the FERC issued a Notice of Application for the proposed Project in Docket No. CP07-417-000. The notice announced that Texas Gas's application had been filed with the Commission on July 11, 2007, informed us that pre-filing process had ended, invited additional written comments on the proposed Project from the public, and established a closing date for receipt of comments on the application of August 13, 2007.

In response to our notices and scoping meetings, we received 22 written comments and several oral comments about the Project. The comments expressed concern about location; safety; easements; use of eminent domain; noise; impacts on agriculture, wetlands, soils, water resources, wildlife, vegetation, threatened and endangered species, national wildlife refuges, land use, wetland reserve program lands, the Natchez Trace Parkway, and residences. These comments were addressed in the draft EIS.

On November 16, 2007, the FERC issued the draft EIS for the Project and filed it with the U.S. Environmental Protection Agency (EPA). A formal notice was published in the Federal Register announcing that the draft EIS was available and had been mailed to individuals and organizations on the

² Launcher and receiver facilities would be used to send and receive internal inspection equipment (pigs) that travels through the pipeline.

draft EIS mailing list prepared for the Project. In accordance with the CEQ regulations implementing NEPA, the public was allowed until January 7, 2008, to comment on the draft EIS in the form of written comments or at the public meetings. Public meetings to receive comments on the draft EIS were held in Searcy and Forrest City, Arkansas, and in Lexington, Mississippi, on December 11, 12, and 13, 2007, respectively.

We received comment letters from the U.S. Army Corps of Engineers (USACE) Memphis and Little Rock district offices, the U.S. Department of the Interior, and the EPA, and Texas Gas. We also received comments from two landowners. A total of eight people provided statements at the public meetings, five at the Forrest City, Arkansas meeting and three at the Lexington, Mississippi meeting. Our³ responses to comments filed by February 4, 2008, are provided in appendix G of this document.

ENVIRONMENTAL IMPACTS AND MITIGATION

Construction of the Project would disturb about 5,018.5 acres of land (including the pipeline construction rights-of-way, aboveground facility construction workspaces, additional temporary workspaces, access roads, and pipe/contractor yards). About 1,693.5 acres would be required for the permanent pipeline right-of-way and aboveground facilities.

Construction and operation of the proposed Project would have minimal impact on geologic resources and geologic hazards are not expected to be an issue for Project construction and operation. About 55 miles of the westernmost portion of the proposed Fayetteville Lateral would cross Southwestern Energy Company's (Southwestern) Fayetteville Shale gas production area. Texas Gas has consulted with Southwestern to develop a pipeline route through the gas production area to minimize conflicts with ongoing development of this resource and to plan locations for tie-ins to interconnect with Southwestern's gathering pipelines. Blasting may be required along portions of the Fayetteville Lateral but would not be required for construction of the Greenville Lateral.

Construction and operation of the proposed Project would have minimal impact on soils. About 79 percent of the soil affected by the proposed Fayetteville Lateral would be considered agriculturally important, i.e., Prime Farmland or Farmland of Statewide Importance. About 67 percent of the soil that would be affected by construction of the Greenville Lateral would be classified as Prime Farmland or Prime Farmland when adequately drained. Texas Gas would implement the mitigation measures described in our Upland Erosion Control, Revegetation and Maintenance Plan (Plan) to minimize impacts on soils due to construction of the Project. In agricultural and residential areas, up to 12 inches of topsoil would be removed and segregated from spoil. Subsoil would be decompacted, if needed, topsoil would be returned following construction, and the construction right-of-way would be revegetated according to our Plan. Impacts on soils resulting from construction and operation of the proposed pipelines would be temporary because the proposed pipeline would be buried and disturbed areas within the construction and permanent rights-of-way would largely revert to their preconstruction uses following restoration. Operation of aboveground facilities would permanently affect about 58 acres of Prime Farmland soil. Based on the prevalence of Prime Farmland soils in the Project area, we do not believe this loss to be significant. Texas Gas would use its Exotic and Invasive Species Control Plan to minimize the spread of invasive plants.

Construction and operation of the Project would have minimal impact on groundwater resources. No public water supply wells would be within 150 feet of the Fayetteville Lateral. Three public water supply wells would be within 150 feet of the Greenville Lateral. The Mississippi Department of Environmental Quality has no specific requirements for construction near these wells other than a request that caution be

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observed to avoid damage to the wellheads. Texas Gas would clearly mark the wellheads to prevent damage during construction. The greatest potential for impact on groundwater would be from spills, leaks, or other releases of hazardous substances during Project construction or operation. Texas Gas would use best management practices (BMPs) and implement the procedures of its Spill Prevention, Control, and Countermeasures (SPCC) Plan to prevent and control spills of hazardous materials near these wells.

The Arkansas Department of Health and Human Services (ADHHS) identified three well head protection areas within 1 mile of the proposed Fayetteville Lateral and informed that two watersheds (Brewer Lake and Little Red River watersheds) would be crossed. The Little Red River would be crossed by HDD, thereby minimizing impacts on this public water supply resource. The ADHHS suggested a route variation and alternative to move the Fayetteville Lateral out of these watersheds or, alternatively, requested that Texas Gas provide the ADHHS with its plan for constructing through the watersheds so that ADHHS may document any potential impact on the water supply. We analyzed the route variation and alternative suggested by the ADHHS but concluded that the corresponding segments of the proposed route were the preferred alternatives due to the increased impact on residences along the alternative routes. Texas Gas provided the ADHHS with copies of its plans for project construction through and operation in these watersheds. The ADHHS concurred with the use of these plans. It further recommended that Texas Gas employ environmental inspectors, notify the ADHHS and the public water suppliers about the schedule for crossing waterbodies within the watersheds, and allow the ADHHS to inspect construction across waterbodies within the watershed. Texas Gas agreed to these recommendations.

Thirty-seven private water supply wells would be within 150 feet of Project construction workspaces. Texas Gas would conduct pre- and post-construction yield and water quality tests on water wells within 150 feet of construction workspaces, with landowner permission, and would repair any water supply systems damaged by construction activities. Texas Gas would provide a temporary source of water if water supplies are disrupted until repairs are made. We have recommended that Texas Gas update the locations of water wells and springs within 150 feet of construction workspaces prior to construction.

The Project would cross a total of 483 waterbodies (70 perennial and 413 intermittent) including the Mississippi River. To minimize impacts, Texas Gas would cross the Mississippi River and 15 other waterbodies by horizontal directional drill (HDD). The proposed pipelines would cross four waterbodies listed on the National Rivers Inventory (NRI); all but one of these, Cadron Creek, would be crossed by HDD. Texas Gas would cross Cadron Creek (also a state-designated Extraordinary Resource Waters) using a dry crossing method. The Arkansas Department of Environmental Quality (ADEQ), FWS, and NPS were consulted regarding this waterbody crossing. Texas Gas would adhere to these agencies' recommendations for construction across and restoration of this waterbody. Further, we recommended that Texas Gas provide portage routes and ample signage for river users during construction activities across Cadron Creek, and that interested agencies be notified about the schedule for crossing perennial waterbodies. To minimize Project construction impacts on surface waters, Texas Gas would implement the measures described in its Storm Water Pollution Prevention Plan (SWPPP) and our Wetland and Waterbody Construction and Mitigation Procedures (Procedures), and the requirements in the permits issued by the other federal and state agencies. The proposed pipelines would cross six levees by HDD, two each at the Mississippi River, the Yazoo River, and Fannegusha Creek in the Hillside National Wildlife Refuge (NWR). Texas Gas has been coordinating with the appropriate levee boards and the FWS (for the crossing of Fannegusha Creek) about these crossing plans. Since this consultation is ongoing, we recommended that Texas Gas file documentation of permission to cross the levees as proposed, and the site-specific plans for all levee crossings.

Construction of the proposed Project would affect a total of 163.7 acres of wetlands. Of this total, 129.8 acres would be temporarily impacted during construction and allowed to revert to preconstruction conditions. About 33.9 acres of wetlands would be within the 30-foot-wide maintained portion of the permanent right-of-way. Of those 33.9 acres, about 13.2 acres would be permanently converted from forested and scrub-shrub wetland types to wetlands with herbaceous vegetation. These impacts would occur in a 10-foot-wide herbaceous strip Texas Gas would maintain above the centerline to facilitate operation and maintenance of the pipeline. The remaining 20.7 acres of impact would be associated with the conversion from a forested community to a shrub-scrub or emergent system within two 10-foot-wide strips on either side of the centerline strip. To minimize impacts on wetlands, Texas Gas would implement the construction, restoration, and maintenance measures described in our Procedures. The proposed pipeline routes have been developed in consultation with the USACE and would avoid and minimize impacts to wetlands where practicable. Wetland impacts would be minimized further by using HDDs to cross several larger wetlands and associated. Texas Gas would develop compensatory mitigation for all wetland impacts, in consultation with the USACE Little Rock, Memphis, and Vicksburg Districts. Compensation may include the purchase of wetland mitigation bank credits at a mitigation ratio determined by the USACE, but specific compensation would be finalized during the course of the USACE Section 404 permitting for the proposed Project.

Eleven federally listed endangered and threatened species potentially occur within the proposed Project area. These include: one mammal (Louisiana black bear), three birds (interior least tern, ivory-billed woodpecker, and woodstork), one fish (pallid sturgeon), four mussels (fat pocketbook, pink mucket, scaleshell, and speckled pocketbook), one insect (American burying beetle), and one plant (pondberry). In addition, one candidate fish species, the yellow cheek darter, was identified. A number of state-listed plant and mussel species also were identified within the vicinity of the Project area. In accordance with recommendations from the FWS and Arkansas Game and Fish Commission (AGFC), Texas Gas conducted mussel surveys in 11 Arkansas waterbodies it proposes to cross using open-cut methods. No threatened or endangered mussel species were identified during the surveys. No federally listed threatened or endangered species were identified during field surveys of the proposed Project. Both the FWS Arkansas field office and the Mississippi field office concur with the results and conclusions of Texas Gas's field surveys and conclude that the Project is not likely to adversely affect federally listed threatened or endangered species in Arkansas or Mississippi, respectively. We concur with the conclusions of the FWS that the Project is not likely to adversely affect federally listed threatened or endangered species. Consultation with the FWS is complete.

Agricultural land would be the primary land use affected by construction and operation of the Project. Other land use types affected include upland and managed forest, non-forested rangeland, pastureland, non-agricultural fields, prairie and open land in the early stages of succession and minor amounts of commercial/industrial land and residential land. Land use impacts would include disturbance of existing land uses within construction work areas and creation of a new permanent right-of-way for operation and maintenance of the pipeline and aboveground facilities. Most land would revert to preconstruction use during operation.

The primary impact on agricultural land would be the loss of crops within the work area, and possibly immediately adjacent areas, since this land would be taken out of production for at least one growing season, and impact on agriculture could be short-term or long-term. Construction may affect irrigation which may affect crop yields. About 99 acres of the agricultural land crossed by the Project has pivot-irrigation systems that could be affected by construction activities. During construction of the pipelines, the presence of large piles of topsoil, an open trench, and construction equipment, etc., would likely make the movement of a pivot irrigation system across the pipeline corridor problematic. Texas Gas would coordinate closely with landowners to ensure that crop irrigation continues by another means if pivot irrigation is not feasible during the construction period. Operation of the Project would not likely affect

pivot irrigation systems. Construction would affect rice and orchards. We have recommended that, prior to construction, Texas Gas file site-specific plans for construction through and restoration of rice fields to ensure continued productivity. Following construction, most agricultural land uses would continue within the permanent right-of-way and any loss of production should be a short-term impact with successful restoration. However, about 30.6 acres of orchards would be affected by Project construction, and 15.4 acres within the permanent right-of-way would be lost to orchard production during operation of the Project. This impact has been minimized by following existing pipeline right-of-way. Texas Gas would compensate landowners for the loss of orchard crops within the permanent right-of-way.

The primary impact of construction on forest land and managed forest land by the Project would be the removal of trees from the construction right-of-way. Following construction, trees would be allowed to regenerate in temporary workspaces, but since regrowth of forests could take over 20 years, the impact would be long-term to permanent. The impact on forest land use within the permanent 50-foot-wide right-of-way would be a permanent change to open land. Texas Gas would compensate landowners for loss of timber in accordance with negotiated easement agreements.

The Greenville Lateral would cross one federally managed area: the Hillside NWR in Holmes County, Mississippi. The NWR would be crossed by HDD, thereby avoiding impacts. On November 5, 2007, Texas Gas filed an application with the Southeast Region of the FWS for a Right-of-way Permit to cross the Hillside NWR. The FWS has not expressed any special concerns about the Project in this area. We recommended that Texas Gas update the status of the Right-of-way Permit for crossing the Hillside NWR when it files its Project Implementation Plan.

The Greenville Lateral would also cross one tract that is in the NRCS Wetland Reserve Program (WRP). Impacts to the WRP land would be minimized by avoiding existing wetland habitat as much as possible and paralleling an existing road right-of-way. Impacts on WRP lands generally would be temporary. Following construction, the right-of-way would be restored to preconstruction conditions, or better. Texas Gas would select specific native species for revegetation of the WRP tract in consultation with the landowner/tenant and NRCS. Based on our consultation with the NRCS, the proposed route appears reasonable. However, the NRCS states that Texas Gas would be required to obtain a subordination of NRCS's easement for this tract prior to construction which will include a site-specific construction and restoration plan. We recommended that Texas Gas update the status of its consultation on the subordination agreements with the NRCS when it files its Project Implementation Plan.

The proposed Greenville Lateral would cross the Natchez Trace Parkway (Parkway), which is managed by the NPS. Texas Gas would cross the Parkway by HDD to avoid direct construction impacts to the Parkway, and minimize impacts on its viewshed and adjacent forested areas. The route across the Parkway and the crossing method were developed in consultation with the NPS.

Texas Gas consulted with the Arkansas and Mississippi State Historic Preservation Officers (SHPO) and performed cultural resource investigations for areas that would be potentially affected by construction and operation of the Project. In Arkansas, 38 cultural resource sites were recommended as potentially eligible for the NRHP. Thirty-seven of these sites would be avoided by realignments, deviations, or through the use of HDD crossing methods; seven of these 37 cultural resources would be further protected by placing site boundaries on construction mapping, placing orange protective fencing around site boundaries, and monitoring by an Environmental Inspector during work activities. One archaeological site, Site 20E-1, cannot be avoided, and Phase II NRHP-eligibility testing was recommended for this site. Texas Gas is currently conducting Phase II testing at Site 20E-1.

In Mississippi, on the Fayetteville Lateral, two archaeological resources are recommended as potentially NRHP-eligible. On the Greenville Lateral, 21 were listed, eligible for listing, or recommended as

potentially eligible for the NRHP (including the Natchez Trace Parkway, a potentially NRHP-eligible historic property administered by the NPS that is in the process of being nominated to the NRHP); and one was undetermined (22Ho1189, a historic cemetery). All of the 23 NRHP-listed, -eligible, or potentially eligible cultural resources and the one undetermined cemetery would be avoided by realignments, deviations, or the use of HDD crossing methods; and seven of these cultural resources would be further protected by placing site boundaries on construction mapping, placing orange protective fencing around site boundaries, and monitoring by an Environmental Inspector during work activities. The NPS has reviewed the Phase I survey report for the Natchez Trace and found it meets its requirements, and it has approved the HDD crossing of the Natchez Trace Parkway historic property. We are currently awaiting the SHPO's comments on the Phase I survey report.

Once the surveys are completed, Texas Gas would file a report with the Arkansas and Mississippi SHPOs, as appropriate, and the FERC. Surveys of some areas are outstanding and the consultation process for the Project is not yet complete. Therefore, we have recommended that Texas Gas complete the required studies and file the SHPOs' comments on such studies before construction. Texas Gas prepared a Plan for the Unanticipated Discovery of Historic Properties and Human Remains during Construction for the Project, to be used in the event that any unanticipated historic properties (consisting of prehistoric or historic archaeological resources) or human remains are encountered during construction of the proposed Project.

Conservative modeling for the proposed Kosciusko Compressor Station emission sources indicates that the total facility impact would be below the National Ambient Air Quality Standards. Therefore, impacts on air quality would not be significant. The calculated noise level for the proposed compressors would be below 55 decibels on the A-weighted scale. We recommended that Texas Gas conduct noise surveys

Based on our review, we have determined that Texas Gas's proposed mitigation measures are acceptable and consistent with our regulations, but we have made several recommendations to further avoid, minimize, and mitigate environmental impacts. Also, Texas Gas would be required to obtain and adhere to several federal, state, and local permits and authorizations that may include additional requirements to minimize and mitigate environmental impacts resulting from construction and operation of the Project. Detailed descriptions of environmental impacts including cumulative impacts, Texas Gas's proposed impact avoidance and mitigation measures, and our recommendations are included in sections 2.0, 3.0, 4.0, and 5.0 of the EIS.

ALTERNATIVES CONSIDERED

We considered the alternatives of no action or postponed action. While the no action or postponed action alternatives would eliminate or postpone the environmental impacts identified in this EIS, the objectives of the proposed Project would not be met and Texas Gas would not be able to provide the additional infrastructure to support a new source of natural gas supply in the U.S.

With respect to the pipeline alternatives, we concluded that there were no practicable system alternatives or design alternatives. During pre-filing Texas Gas incorporated 85 route variations developed from consultations with affected landowners into its proposed route. Further, based on consultations with federal and state agencies, Texas Gas incorporated a route alternative and five additional route variations into its proposed route. We identified no other route alternatives or variations that would significantly reduce environmental impacts.

By modifying the design of the Kosciusko Compressor Station, Texas Gas has avoided permanent loss of wetland acreage. No alternative locations or configurations for the other proposed aboveground facilities were determined to be preferable to the proposed facilities.

We have determined that the proposed Fayetteville/Greenville Expansion Project as modified by our recommended mitigation measures, is the preferred alternative.

CONCLUSION

As part of our review, we developed measures that we believe would appropriately and reasonably avoid, minimize, or mitigate environmental impacts associated with construction and operation of the proposed Project. We recommended that these measures be attached as conditions to any authorization the Commission may issue. We conclude that if the Project is found to be in the public interest and is constructed and operated in accordance with Texas Gas's proposed mitigation measures and our mitigation measures, then the proposed Project would result in limited adverse environmental impact. In support of this conclusion, we offer the following:

- The Fayetteville Lateral would be collocated with or parallel to existing rights-of-way for about 90.5 miles, or 54 percent, of its length. While the Greenville Lateral would largely require construction of a new right-way, the proposed route is largely located within agricultural land use, minimizing the need to clear more forested areas and wetlands.
- HDD construction methods would be used to cross many sensitive resources.
- Texas Gas would implement our Plan and Procedures, BMPs, SPCC Plan, and SWPPP, to mitigate impacts on soils, wetlands, and waterbodies.
- Texas Gas would implement an agency-approved wetland mitigation plan to mitigate for, and minimize impacts, on wetlands.
- Consultation with the FWS, as required by Section 7 of the Endangered Species Act, is completed for the Project.
- Consultation with the SHPOs and, if necessary, the Advisory Council on Historic Preservation, as required by Section 106 of the National Historic Preservation Act, would be completed before construction would be allowed to commence.
- Texas Gas would implement an environmental inspection and mitigation monitoring program that would ensure compliance with all mitigation measures that become conditions of any FERC authorization.