

## **EXECUTIVE SUMMARY**

This draft environmental impact statement (EIS) for the Carthage to Perryville Project (Project) 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 under Title 18, Code of Federal Regulations (CFR), Part 380, and the Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500–1508). The purpose of this document is to inform the public and the various federal and state agencies about the potential adverse and beneficial environmental impacts of the proposed Project and its alternatives, and to recommend mitigation measures that would avoid or reduce any significant adverse impacts to the maximum extent possible. This document has been prepared in coordination with our federal cooperating agencies for the Project, the U.S. Army Corps of Engineers (COE) and the U.S. Fish and Wildlife Service (FWS).

## **PROPOSED ACTION**

On March 10, 2006, CenterPoint Energy Gas Transmission (CEGT) filed an application with the FERC, pursuant to Section 7(c) of the Natural Gas Act (NGA), as amended, and Parts 157 and 284 of the FERC's regulations. Under Docket No. CP06-85-000, CEGT seeks a Certificate of Public Convenience and Necessity (Certificate) to construct, own, operate, and maintain the proposed Project, which consists of an interstate natural gas pipeline and associated ancillary facilities. The purpose of the proposed Project is to facilitate the transport of natural gas received from production areas in eastern Texas, as well as northern Louisiana, to markets in the Midwest and Northeastern regions of the United States that can be accessed through interconnects with existing pipeline infrastructure. The proposed Project would be designed and constructed to receive and transport about 1.2 billion cubic feet of natural gas per day, and CEGT proposes to have the Project in-service by February 2007. Specifically, the proposed Project facilities would include:

- about 171.9 miles of 42-inch-diameter natural gas pipeline in Panola County, Texas, and Caddo, DeSoto, Red River, Bienville, Jackson, Ouachita, and Richland Parishes, Louisiana;
- two compressor stations, the Panola and Vernon Compressor Stations, located in Panola County, Texas, and Jackson Parish, Louisiana, respectively (phased construction with initially installed gas turbine-driven compression of 10,310 horsepower (hp) to be expanded to 20,620 hp at each station by October 2008);
- two meter and regulator stations at receipt points with three intrastate pipelines, including:
  - Houston Pipe Line (HPL) Meter/Regulator (M/R) Station in Panola County, Texas;
  - Duke Energy Field Services-Enbridge M/R Station in Panola County, Texas;
- four new meter and regulator stations at interconnects with existing interstate pipelines, including:
  - Texas Gas M/R Station in Ouachita Parish, Louisiana;
  - ANR M/R Station in Richland Parish, Louisiana;
  - Trunkline M/R Station in Richland Parish, Louisiana;
  - Columbia Gulf M/R Station in Richland Parish, Louisiana;

- 11 mainline valves; and
- four pig launcher/receiver facilities associated with the Panola and Vernon Compressor Stations and the HPL and Columbia Gulf M/R Stations.

## **PUBLIC INVOLVEMENT AND AREAS OF CONCERN**

On October 25, 2005, CEGT filed a request with the FERC to implement the Commission's Pre-filing Process for the Carthage to Perryville Project. At that time, CEGT was in the preliminary design stage of the proposed Project and no formal application had been filed with the FERC. On November 10, 2005, the FERC granted CEGT's request and established a pre-filing docket number (PF06-1-000) to place information relevant to the proposed Project into the public record. The purpose of the Pre-filing Process is to encourage the early involvement of interested stakeholders, facilitate interagency cooperation, and identify and resolve issues before an application is filed with the FERC.

On January 6, 2006, the FERC issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Carthage to Perryville Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings* (NOI). The NOI was sent to affected landowners; federal, state, and local government agencies; elected officials; environmental and public interest groups; Native American tribes; local libraries and newspapers; and other interested parties. The NOI, which was published in the Federal Register, provided a summary of the proposed Project, outlined our NEPA-required environmental review process, provided a list of the then currently identified environmental issues, and requested comments on the scope of the analysis for the EIS. The NOI also announced the dates and times of three public scoping meetings that were sponsored by the FERC to give the general public an opportunity to learn more about the proposed Project and to comment on environmental issues to be addressed in the EIS. These scoping meetings were held on January 24, 25, and 26, 2006, in Carthage, Texas, and Quitman and Delhi, Louisiana, respectively.

During the pre-filing and scoping periods for the proposed Project, we received a total of 11 written comment letters from members of the general public, Native American tribes, and federal and state resource agencies. In addition, we received verbal statements from a total of four individuals at the public scoping meetings.

In addition to the public notice and scoping process discussed above, the FERC conducted agency consultations and participated in interagency meetings to identify issues that should be addressed in this EIS. These activities included participation in interagency meetings on November 15, 2005, and March 20, 2006, to discuss the proposed Project and its associated environmental review process with other key federal and state agencies. These agencies included the COE; FWS; the Louisiana Department of Wildlife and Fisheries (LDWF); and the Louisiana Department of Environmental Quality.

This Draft EIS was filed with the U.S. Environmental Protection Agency and mailed to affected landowners; various federal, state, and local government agencies; elected officials; environmental and public interest groups; Native American tribes; local libraries and newspapers; intervenors; and other individuals that expressed an interest in the proposed Project. A formal notice that the Draft EIS is available for review and comment has been published in the Federal Register. The public has 45 days to review and comment on the Draft EIS both in the form of written comments and at public meetings that will be held along the Project route. All comments received on the Draft EIS will be addressed in the Final EIS.

## PROJECT IMPACTS

Land requirements during construction of the proposed Project would total approximately 2,482.9 acres, including 1,963.7 acres for the pipeline construction right-of-way; 34.6 acres for the aboveground facilities; and 484.6 acres for extra work areas (extra workspaces, pipe storage and contractor yards, and access roads). Following construction, all affected areas outside the permanent pipeline right-of-way and aboveground facility sites would be restored and allowed to revert to approximately preconstruction conditions and uses. During operation of the proposed Project, the permanent pipeline right-of-way, aboveground facilities, and permanent access roads would encumber approximately 1,250.0 acres.

Three structures, two barns and one shed, would be located within the proposed pipeline construction right-of-way, but no residences would be located within 50 feet of any construction work area. CEGT would mitigate any unavoidable impacts to structures located within the construction work area per the terms of the agreements negotiated during the easement acquisition process.

Visual resources along the proposed Project route would be affected by the installation of some aboveground facilities and alteration of existing vegetative patterns associated with clearing and maintenance of the construction and permanent pipeline rights-of-way. However, the impact is not expected to be significant in most areas. We have included recommendations for CEGT to develop site-screening plans for several aboveground facilities, including the ANR M/R Station and three of the proposed mainline valve sites, to visually screen those facilities from nearby residences.

Construction and operation of the proposed Project would have minimal impact on geological resources. The primary effect of Project construction would be disturbances to the existing topography along the proposed pipeline construction right-of-way, but all areas disturbed during pipeline construction would be finish-graded and restored as closely as possible to preconstruction contours during cleanup and restoration. Additionally, no bedrock blasting is anticipated for the proposed Project. The proposed Project would be located in a region with a low risk of seismic activity, soil liquefaction, landslide susceptibility, and subsidence. Oil and natural gas extraction is common in Panola County, Texas, and DeSoto Parish, Louisiana, but construction and operation of the proposed Project is not expected to have a negative impact on exploitable oil or natural gas resources. Though the proposed Project pipeline would conflict with current and future extraction of mineral resources at a sand pit and gravel pit, compensation for any losses or limitations on future expansion of mining operations there would be addressed during easement negotiations with the affected landowners.

The proposed Project would traverse a variety of soil types and conditions, and about 50 percent of the soils that would be affected by the proposed pipeline are classified as prime farmland. Construction activities associated with the proposed Project, such as clearing, grading, trenching, and backfilling would adversely affect soil resources by resulting in erosion, compaction, and the loss of soil productivity and fertility by mixing of topsoil and subsoil horizons and changing drainage patterns. Such effects would be of particular concern in agricultural areas. CEGT would implement the mitigation measures contained in the January 2003 version of our *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) to control erosion, ensure successful revegetation, and minimize any potential adverse impacts to soil resources. Additionally, we have recommended that CEGT further limit potential impacts to soil resources by developing site-specific Spill, Prevention, Containment, and Control (SPCC) Plans and contaminated materials management plans and by gaining all required approvals and authorizations associated with prime farmland conversion.

Construction and operation of the proposed Project would be conducted in accordance with the January 2003 version of our *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures), including the relatively minor modifications approved in this EIS. The proposed Project

would avoid impacts to sole-source aquifers, wellhead protection areas, drinking water wells, and springs. Other potential impacts to groundwater resources would be avoided or minimized by implementing the requirements in our Procedures, site-specific SPCC Plans, and our recommendation that CEGT offer testing and if applicable, mitigation, for private or domestic water wells impaired by construction.

The proposed Project would cross 102 perennial streams, 131 intermittent streams, and 7 ponds. As proposed, most minor and intermediate waterbody crossings and two crossings of ponds classified as major waterbodies would be accomplished using open-cut methods. Potential effects to major and sensitive waterbodies would be largely avoided through implementation of horizontal directional drill (HDD) installation techniques, which would be used to accomplish pipeline installation across 18 waterbodies. Waterbodies that would be crossed using HDD include each of the eight major and/or navigable streams crossed by the proposed Project route; two designated Louisiana Natural and Scenic Rivers (Black Lake Bayou and Saline Bayou); one Nationwide Rivers Inventory (NRI)-listed stream (the Sabine River); the river most likely to contain habitat for federally-listed species (the Red River); and three of the four impaired waterbodies that occur along the proposed Project route. All waterbody crossings would be accomplished in accordance with our Procedures and the terms of any applicable federal or state permits that may be granted.

No surface water intakes are located within three miles downstream of the proposed Project waterbody crossings, and there are no records of contaminated sediments in any of the waterbodies that would be crossed by the proposed Project. Accidental spills during construction and operations would be prevented or adequately minimized through implementation of our Procedures, CEGT's general SPCC Plans, and our recommendation for development of site-specific SPCC Plans. Additionally, CEGT's Directional Drill Contingency Plan (DDCP) describes the procedures that would be implemented to monitor for, contain, and clean up any inadvertent releases of drilling fluids during HDD operations.

CEGT has proposed to use surface waters for hydrostatic testing of the proposed pipeline, though municipal water supplies may be used as test water sources for some prefabricated assemblies at aboveground facility sites. CEGT would also avoid or adequately minimize potential effects to waterbodies resulting from hydrostatic testing by implementing our Procedures, limiting contact of test waters to new pipe, and avoiding the use of potentially toxic test water additives. Additionally, hydrostatic test waters would be sampled and treated, if needed, prior to discharge.

The waterbodies that would be traversed by the proposed Project provide habitat for a variety of aquatic species, including warmwater fishes and mussels. Potential impacts to fisheries and aquatic habitats would include sedimentation and turbidity, loss of cover, introduction of pollutants into the aquatic environment, potential blockage of fish migrations and interruptions of spawning, and entrainment or loss of stream flow during hydrostatic testing. As described above, all waterbody crossings would be accomplished in accordance with our Procedures and the terms of any applicable federal or state permits that may be granted. Direct impacts would be avoided by the use of HDD installation at many waterbody crossings, and aquatic habitat impacts at other crossing locations would be largely temporary, as crossings would be completed in less than 48 hours in most instances. Additionally, intake screening to limit entrainment of fishes and maintenance of adequate stream flow rates to protect aquatic life during hydrostatic test water withdrawals would further ensure that any Project-related impacts to aquatic habitats would be minor and temporary.

Construction of the proposed Project pipeline would affect 150 wetland areas resulting in a total of approximately 118.2 acres of wetland disturbance, including approximately 80.7 acres of forested wetlands and approximately 37.5 acres of scrub-shrub or emergent wetlands. No wetlands would be affected by the proposed aboveground facilities. During operations, approximately 46.5 acres of wetlands, including approximately 31.9 acres of currently forested wetlands, would be maintained as

herbaceous vegetative communities within the maintained portion of the permanent pipeline right-of-way. Special-status wetlands potentially affected by the proposed Project include lands in the Natural Resource Conservation Service (NRCS)-administered Wetland Reserve Program (WRP) and a Texas Parks and Wildlife Department (TPWD)-designated natural plant community. Impacts to emergent and scrub-shrub wetlands would be minor overall as regeneration to preconstruction condition would occur rapidly in these areas, and maintenance of the permanent pipeline right-of-way would not result in a permanent conversion of emergent wetlands. Impacts to forested wetlands would be either permanent or long-term due to the slow regeneration time of forested areas.

CEGT would minimize unavoidable wetland impacts by completing all wetland crossings in accordance with our Procedures, with several approved variances, and by complying with the terms and conditions of any authorizations issued by the COE, including the provisions of any required wetland compensatory mitigation. We have also included multiple recommendations, such as development of a Project-specific forested wetland restoration plan, identification of additional measures to further avoid and minimize forested wetland impacts (e.g., implementation of additional or extended HDDs), and further consultations with NRCS regarding impacts to WRP lands, that would sufficiently minimize overall impacts to wetland resources. Additionally, CEGT would compensate for all unavoidable wetland impacts through purchase of wetland mitigation bank credits in the area of the proposed Project.

In addition to the wetland vegetation resources described above, construction and operation of the proposed Project would affect four primary types of upland, vegetative communities: upland forest, pine plantation, agricultural land, and open lands. Approximately 65 percent of the upland vegetation resources affected during construction would consist of pine plantation and upland forest, with agricultural and open lands making up the remainder. Several extensive forested tracts and areas containing exotic and/or invasive plant species would also be crossed by the proposed pipeline route, as well as vegetative communities of special concern, including NRCS-administered Conservation Reserve Program (CRP) lands and a forested portion of the Ouachita Wildlife Management Area.

The wetlands and upland vegetation communities crossed by the proposed Project route support habitats that provide cover and forage for a variety of wildlife species including birds, mammals, reptiles, and amphibians. Physical disturbance, displacement, and clearing of herbaceous upland and wetland habitats within the construction right-of-way and other work areas would affect wildlife at or near the time of construction, but such effects would be largely temporary and many habitats would generally recover quickly following construction. Forested habitats would be affected most substantially, with a long-term conversion of wooded areas to successional stages in the temporary construction right-of-way and a permanent conversion to scrub-shrub or herbaceous levels within the permanent pipeline right-of-way.

CEGT would restore all disturbed vegetated areas in accordance with our Plan and Procedures, and the specific recommendations of local agencies and soil conservation services. Impacts to forested areas, including large forested tracts, would be minimized by routing the proposed Project along existing rights-of-way and through other previously disturbed areas, such as agricultural and open lands, where possible. Additionally, many of the large forested tracts crossed by the proposed Project are subject to some disturbance associated with timber management programs. Given these measures, and our recommendations for CEGT to consult with appropriate agencies regarding impacts to vegetation communities of special concern and develop plans to control the spread of invasive plant species in areas affected by construction, effects to upland vegetation and wildlife habitats would be effectively minimized.

Based on consultation with the FWS, TPWD, and LDWF and review of existing records, six federally listed endangered, threatened, or candidate species were identified that would potentially occur

in the vicinity of the proposed Project. Based on our review of these species and the survey reports prepared by CEGT, we have determined that these species and their preferred habitats either do not occur along the proposed Project route or their potential habitats would be avoided through special construction procedures. With implementation of CEGT's proposed construction and mitigation plans and our recommendations, we believe that construction and operation of the proposed Project would not be likely to adversely affect any federally listed endangered or threatened species. The FWS has concurred with these determinations of effect.

In addition to federally listed species, other special status species, including migratory bird species, colonial nesting waterbirds, and an additional 25 species listed as either endangered, threatened, imperiled, or rare by the states of Texas and Louisiana, were also identified through consultations with TPWD, LDWF, and FWS. We have recommended that CEGT conduct additional consultations with these agencies, complete any required additional surveys, and implement agency recommended mitigation measures, if required, to ensure that potential Project-related effects to all special status species are adequately avoided or minimized.

Construction of the proposed Project would not have a significant adverse impact on local populations, housing, employment, community services, or local commerce. Construction of the proposed Project would temporarily increase demand for public services such as medical, police, and fire protection, but increased tax revenues to local governments would offset these effects. The proposed Project would have positive impacts on local spending, employment, and tax income during construction and operation, but such contributions would likely be minimal. There is no evidence that the proposed Project would have a disproportionate share of adverse environmental or socioeconomic impacts on any racial, ethnic, or socioeconomic group.

CEGT has conducted cultural resource surveys at the proposed compressor station sites, associated aboveground ancillary facilities, and access roads and along the majority of the proposed pipeline route and extra workspace areas. CEGT identified 25 archaeological sites and three historic cemeteries along the proposed Project route. Of these, six sites are considered potentially eligible for listing in the National Register of Historic Places (NRHP), and six of eight previously recorded sites would not be relocated. Each of the potentially eligible archaeological sites and historic cemeteries would be completely avoided by the proposed pipeline route or would not be impacted by construction. CEGT also contacted nine Native American groups regarding the proposed Project, and although some requested additional consultation or information, none have expressed opposition to the proposed Project.

Air quality impacts associated with construction of the proposed Project would generally be temporary and localized, and these emissions are not expected to cause or contribute to a violation of applicable air quality standards. The proposed Panola and Vernon Compressor Stations would emit air pollutants as a result of combustion of natural gas to drive the compressor units, and in association with the periodic operation of auxiliary generators. However, the air emissions associated with operation of the compressor stations would meet Federal or state ambient air quality standards.

Impacts to noise quality associated with construction of the proposed Project would generally be temporary, minor, and limited to daylight hours, except at HDD sites, where drilling and related construction equipment would likely operate on a continuous basis. We have recommended that CEGT file a residential HDD noise analysis, mitigation, and compliance plan to ensure that noise sensitive areas (NSAs) are not exposed to excessive noise during nighttime HDD operations. The proposed compressor stations would also generate noise on a continuous basis during operations. However, the predicted noise levels attributable to operations of the new compressor stations would not result in significant effects on the NSAs nearest to those facilities.

The proposed Project would be designed, constructed, operated, and maintained to meet or exceed all U.S. Department of Transportation safety standards for natural gas pipelines under 49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*. Following construction, CEGT would also initiate a pipeline integrity management plan to ensure public safety during operation. The proposed Project would result in only a slight increase in risk to the nearby public.

We identified three types of past, present, and reasonably foreseeable future projects that would potentially result in a cumulative impact when considered with the proposed Project. These include other natural gas transmission pipelines in the area, nonjurisdictional facilities associated with the proposed Project, and transportation projects in the vicinity of the proposed pipeline route. The potential impacts associated with these projects that are most likely to be cumulatively significant are related to wetlands and waterbodies, vegetation and wildlife (including federally and state-listed endangered and threatened species), land use, air quality, and noise. We believe that impacts associated with the proposed Project would be relatively minor overall, and we have included recommendations in this EIS to further reduce the environmental impacts associated with the Project. Similarly, each of the projects considered in our analysis has been or would be designed to avoid or minimize impacts to sensitive environmental resources. Additionally, it is anticipated that any significant unavoidable impacts to sensitive resources resulting from these projects would be mitigated. Consequently, only a small cumulative effect is anticipated when the impacts of the proposed Project are added to past, present, or reasonably foreseeable future projects in the area.

## **ALTERNATIVES CONSIDERED**

We evaluated the no action or postponed action alternatives, which would involve not building or deferring construction of the proposed Project facilities. While the no action or postponed action alternative would eliminate the short- and long-term environmental impacts identified in this EIS, the objectives of the proposed Project would not be met, and CEGT would not be able to provide a new source of natural gas to markets that can be accessed through the proposed pipeline interconnects.

We evaluated system alternatives to examine whether other existing or proposed natural gas pipeline systems would meet the proposed Project objectives while offering an environmental advantage over the proposed Project. While two existing pipeline systems are located in the general vicinity of the proposed Project, none of these would meet the capacity volumes of the proposed Carthage to Perryville Project without substantial system upgrades, such as new or increased compression and new pipeline looping. Similarly, it is anticipated that construction and operational impacts associated with new pipeline system alternatives would be similar to that of the proposed Project. Consequently, no system alternatives are considered to provide environmental benefits superior to the proposed Project. We also examined the feasibility of replacing the two proposed pipeline projects currently under our review in northern Louisiana with a single pipeline system that would transport the combined volumes of both projects. However, we do not consider the single pipeline system to represent a reasonable alternative, and we eliminated it from further consideration.

We also evaluated three major route alternatives to the proposed Project route. However, none of these would offer significant environmental advantages over the proposed Project route, and we eliminated them from further consideration. Lastly, we considered route variations to resolve or reduce construction impacts to localized, specific resources. CEGT identified a total of 22 miscellaneous minor route variations to the initially planned route that have been incorporated into the proposed Project route, as filed with the FERC. We have evaluated each of these minor route variations and considered their associated environmental consequences as part of our environmental analysis of the proposed Project. Additionally, we identified and evaluated five route variations in response to public comments received

during the pre-filing and scoping periods for the proposed Project. Of these, none were considered to offer significant environmental advantages to the proposed Project route, except for one, which we recommended to avoid impacts to a perennial stream.

We also evaluated the proposed locations of the Project aboveground facilities to determine whether environmental impacts would be reduced or mitigated by use of alternative facility sites. We did not identify any alternative sites for the proposed meter/regulator or mainline valve facilities that would offer a significant environmental advantage to the proposed sites. Though no significant environmental consequences were identified in association with either of the proposed compressor station sites, we did evaluate two alternative sites for the Panola Compressor Station in response to a public comment received during the scoping period. Neither of the sites evaluated was considered to be environmentally preferable to the proposed site, and they were eliminated from further consideration.

## **MAJOR CONCLUSIONS**

We have determined that construction and operation of the proposed Carthage to Perryville Project would result in limited adverse environmental impacts based on information provided by CEGT and data developed from information requests; field investigations; literature research; alternatives analysis; comments from federal, state, and local agencies; and input from public groups and individual citizens. These limited impacts would be most significant during the construction period.

As part of our review, we developed specific mitigation measures that we believe would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of the proposed Project. We believe that environmental impacts would be minimized if the proposed Project is constructed and operated in accordance with applicable laws and regulations, CEGT's proposed mitigation, and our additional mitigation measures. The primary reasons for our conclusion are:

- the proposed pipeline route would collocate with or parallel existing rights-of-way for approximately 41 miles, or about 24 percent of the proposed route;
- CEGT would use HDD to accomplish pipeline installation across most of the major and sensitive waterbodies traversed by the proposed Project route, including all of the major and/or navigable stream crossings, two designated Louisiana Natural and Scenic Rivers, one NRI-listed stream, and the river most likely to contain habitat for federally-listed species;
- CEGT would develop a Project-specific forested wetland restoration plan and compensate for all unavoidable wetland impacts through purchase of wetland mitigation bank credits in the area of the proposed Project;
- CEGT would implement our Plan and Procedures, including the relatively minor modifications approved in this EIS, to mitigate impacts to natural resources during construction and operation of the Project;
- all applicable federal, state, and local permits and authorizations would be obtained by CEGT prior to initiating activities requiring such permits and authorizations; and
- an environmental inspection and monitoring program would ensure compliance with all mitigation measures that become conditions of any FERC authorization.