1 INTRODUCTION

On April 27, 2007, Colorado Interstate Gas Company (CIG) filed an application with the Federal Energy Regulatory Commission (Commission or FERC) in Docket Number CP07-207-000 under Section 7 of the Natural Gas Act (NGA), as amended, and Part 157 of the Commission's regulations seeking a Certificate of Public Convenience and Necessity (Certificate) to construct, own, and operate a new interstate natural gas pipeline system and ancillary facilities in Colorado.

The environmental staff of the FERC has prepared this final Environmental Impact Statement (EIS) to assess the environmental impact associated with the construction and operation of the facilities proposed by CIG in accordance with the requirements for the National Environmental Policy Act (NEPA). For the purpose of this final EIS, CIG's proposal is referred to as the High Plains Expansion Project (Project).

The proposed Project would involve the construction and operation of about 163.7 miles of 24- and 30-inch-diameter pipeline, in four separate pipeline segments. The proposed facilities would enable CIG to add 899,000 dekatherms per day (Dth/d) of natural gas transportation capacity to its system. CIG proposes beginning construction in January 2008 and completing construction by October 2008. CIG proposes placing each pipeline segment in service as it is completed. The proposed Project is described in detail in section 2.0.

The vertical line in the margin identifies text that has been modified in this final EIS and differs from the corresponding text in the draft EIS.

1.1 PROJECT PURPOSE AND NEED

The purpose of the proposed Project is to provide additional natural gas transportation service on CIG's system on Colorado's Front Range. CIG states that the need for the proposed Project stems from population growth and a rapidly growing market. CIG's existing transportation capacity is not adequate to meet the increased need for natural gas transportation service. Therefore, CIG has proposed the Project to meet this increased demand. Without the Project, CIG states that the area could experience marketplace shortages and increased costs for natural gas.

CIG conducted an open season during January and February 2007 to assess the interest from potential shippers for additional natural gas transportation service. As a result of this open season, CIG executed two precedent agreements for a total of 899,000 Dth/d of natural gas transportation service. Public Service Company of Colorado (PSC) and Coral Energy Resources, L.P. requested 874,000 Dth/d and 25,000 Dth/d of natural gas transportation service, respectively.

On September 15, 1999, the FERC issued a Policy Statement that established criteria for determining whether there is a need for a proposed project and whether the proposed project would serve the public interest. The Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the FERC balances the public benefits against the potential adverse consequences. In evaluating new pipeline construction, the FERC's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain.

1.2 PURPOSE AND SCOPE OF THIS STATEMENT

The FERC is the federal agency responsible for evaluating applications filed for authorization to construct and operate interstate natural gas pipeline facilities. As such, the FERC is the lead federal agency for the preparation of this EIS in compliance with the requirements of NEPA, the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (Title 40 Code of Federal Regulations (CFR) Parts 1500-1508), and the FERC's regulations implementing NEPA (Title 18 CFR Part 380).

Our[1] principal purposes for preparing this EIS are to:

- identify and assess the potential direct, indirect, and cumulative impacts on the natural and human environment that would result from the implementation of the proposed Project;
- describe and evaluate reasonable alternatives to the proposed Project that would avoid or substantially lessen any significant adverse effects of the proposed Project on the environment;
- identify and recommend specific mitigation measures, as necessary, to avoid or minimize significant environmental effects; and
- encourage and facilitate involvement by the public and interested agencies in the environmental review process.

The EIS describes the affected environment as it currently exists, addresses the environmental consequences of the proposed Project, and compares the proposed Project's potential impact to that of alternatives. The EIS also presents our recommended mitigation measures and conclusions.

The Commission will consider the findings of the final EIS as well as non-environmental issues in its review of CIG's application to determine whether a Certificate should be issued for the proposed Project. A Certificate will be granted only if the FERC finds that the evidence produced on financing, rates, market demand, gas supply, existing facilities and service, environmental impacts, long-term feasibility, and other issues demonstrates that a project is required by the public convenience and necessity. Environmental impact assessment and mitigation development are important factors in the overall public interest determination.

1.3 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS

As the lead federal agency for the proposed Project, the FERC is required to comply with the Endangered Species Act (ESA), the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), the Coastal Zone Management Act (CZMA), and the National Historic Preservation Act (NHPA). The proposed Project would not be within marine environments or designated coastal zones, nor would it affect anadromous[2] fish species; therefore, the requirements of the MSFCMA and CZMA are not applicable. The ESA and NHPA have been taken into account in the preparation of this document.

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

[2] Anadromous fish are fish that migrate up rivers from the ocean to spawn in fresh waters.

Section 7 of the ESA, as amended, states that any project authorized, funded, or conducted by any federal agency (*e.g.,* the FERC) should not "…jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined… to be critical…" (16 United States Code (USC) § 1536(a)(2)(1988)). The FERC, or CIG as a non-federal party, are required to consult with the U.S. Fish and Wildlife Service (USFWS) to determine whether any federal-listed or proposed endangered or threatened species or their designated critical habitat occur in the vicinity of the proposed Project.

If it is determined that federal-listed species or critical habitats may be present in the area of the proposed Project, the FERC is required to prepare a Biological Assessment (BA) to identify species that may be affected by the Project, identify the nature and extent of the impact, and to recommend measures that would avoid the habitat and/or species, or would reduce potential impacts to acceptable levels. If, however, the FERC determines that no federal-listed or proposed endangered or threatened species or their designated critical habitat would be adversely affected by the proposed Project, the FERC can request concurrence from the USFWS through an informal consultation process. See section 4.6 of this final EIS for the status of this review.

Section 106 of the NHPA requires the FERC to take into account the effects of its undertakings on properties listed on or eligible for listing on the National Register of Historic Places (NRHP), including prehistoric or historic sites, districts, buildings, structures, objects, or properties of traditional religious or cultural importance, and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking. In accordance with the ACHP procedures, the FERC, as the lead agency, is required to consult with cooperating agencies and the appropriate State Historic Preservation Office (SHPO) regarding the NRHP eligibility of cultural resources and the potential effects of the proposed undertaking on those NRHP-listed or -eligible cultural resources. The FERC has requested that CIG, as a non-federal party, assist in meeting the FERC's obligations under Section 106 by preparing the necessary information and analyses as required by the ACHP regulations in Title 36 CFR Part 800. See section 4.8 of this final EIS for the status of this review.

The FERC has exclusive authority for siting interstate natural gas pipeline projects. However, other agencies also have responsibilities for other federal authorizations, such as permits required under the Clean Water Act (CWA), the Rivers and Harbors Act, and the Clean Air Act (CAA). An applicant must satisfy all federal statutory requirements for the project to proceed. Each of these statutes has been taken into account in the preparation of this document.

The FERC states in its Orders that applicants should cooperate with state and local agencies with regard to non-federal permits and approvals. However, any state or local permits issued with respect to jurisdictional facilities must be consistent with the conditions of any Certificate the FERC may issue. Although the FERC encourages cooperation between interstate natural gas pipeline companies and state and local authorities, this does not mean that state and local agencies, through application of state and local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by the FERC. Any non-federal permits or approvals with requirements that conflict with the FERC's Certificate, or that do not permit CIG to meet its obligations under the FERC's Order, would be preempted by the Certificate; however, the Commission may require CIG to comply with conflicting requirements of a state or local permit or approval if the agencies agree on how to proceed. Permits or approvals required by state or local regulatory authorities that are not in conflict with the Certificate are not subject to federal preemption.

The major permits, approvals, and consultations required for the proposed Project are identified in table 1.3-1. CIG would be responsible for obtaining all permits and approvals required to construct and operate the proposed Project, regardless of whether they appear in this table.

Table 1.3-1 – Major Permits, Approvals, and Consultations

Agency	Permit/Approval/Consultation	Agency Action
FEDERAL		
Advisory Council on Historic Preservation	Consultation on the proposed Project and its effect on historic properties under Section 106, NHPA	Comment on the undertaking and its effects on historic properties
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity under Section 7, NGA	Determine whether the construction and operation of the natural gas pipeline and associated facilities are in the public interest, and consider issuance of a Certificate
	Coordinate all federal authorizations under section 313, U.S. Environmental Protection Agency and Section 15 of the NGA	Establish a schedule for agency review of federal authorizations and maintain a record of all federal decisions and actions
U.S. Army Corps of Engineers	Authorization to discharge dredged or fill material into waters of the United States under Section 404 of the CWA	Consider issuance of permit under Nationwide Permit Program for the placement of dredge or fill material into all waters of the United States, including wetlands
U.S. Fish and Wildlife Service	Consultation regarding compliance with Section 7 ESA, the Migratory Bird Treaty Act, and the Fish and Wildlife Coordination Act	Consider lead agency finding of impact on federal-listed or proposed species or their critical habitats, and provide Biological Opinion if the action is likely to adversely affect federal-listed or proposed species or their critical habitats
STATE		
Colorado Department of Natural Resources, Division of Water Resources	Dewatering well permit and/or water use permits	Consider issuance of a permit for dewatering wells if needed for construction. Surface diversions from the South Platte River or groundwater wells may require a water right decree or a change of the decreed use.
Colorado Department of Natural Resources, Division of Wildlife	State-listed threatened and endangered species consultations	Comment on the undertaking and its effects on state-listed threatened and endangered species
Colorado Department of Public Health and Environment	Section 401, CWA, Water Quality Certification	Consider issuance of a certificate for waterbody and wetland crossings
	Section 402, CWA, National Pollutant Discharge Elimination System (NPDES) Stormwater Permit	Consider issuance of a permit for discharge of stormwater from the construction work area
	Section 402, CWA, NPDES hydrostatic test water discharge permit	Consider issuance of a permit for discharge of hydrostatic test water
Colorado Department of Transportation	State highway crossing permits	Consider issuance of state road crossing permits

Table 1.3-1 (cont.) – Major Permits, Approvals, and Consultations

Agency	Permit/Approval/Consultation	Agency Action
Colorado Historical Society, Office of Archaeology and Historic Preservation	Consultation on the proposed Project and its effect on historic properties under Section 106, NHPA	Comment on the undertaking and its effects on historic properties
South Platte Water Related Activities Program, Inc.	Water appropriation for horizontal directional drilling, dust control, trench compaction and hydrostatic testing	Consider authorization of temporary water use from the South Platte River for Project activities
State of Colorado	Right-of-way grant	Consider authorization to occupy state-owned land
LOCAL		
Adams County	Special use permit	Consider issuance of special use permit
	Road crossing permit	Consider issuance of road crossing permit
Burlington Northern Santa Fe Railway	Railroad crossing permit	Consider issuance of railroad crossing permit
Morgan County	Road crossing permit	Consider issuance of road crossing permit
Union Pacific Railroad	Railroad crossing permit	Consider issuance of railroad crossing permit
Weld County	Special use permit	Consider issuance of special use permit
	Road crossing permit	Consider issuance of road crossing permit

1.4 PUBLIC REVIEW AND COMMENT

On September 26, 2006, CIG filed a request with the FERC to implement the FERC's Pre-filing Process for the proposed Project. On October 6, 2006, the FERC granted CIG's request and established Pre-filing Docket No. PF06-36-000 for the disposition of documents related to the proposed Project, including documents filed by CIG; issued by the FERC or FERC staff; and filed by interested stakeholders.

The intent of the Pre-filing Process is to initiate scoping early in the planning process and to encourage citizens, governmental entities, and other interested parties to identify and resolve issues prior to an application being filed formally with the FERC. As part of the Pre-filing Process, CIG conducted public outreach, which involved mailing notification letters to potentially interested parties (*i.e.*, affected landowners, government officials, Native American tribes, and federal and state agencies) informing them about the proposed Project, and conducting open house meetings to provide stakeholders with opportunities to learn about the proposed Project, ask questions, and express concerns. Notifications of the open houses were published in local newspapers. The open houses were held in Ault (November 28, 2006), Fort Morgan (November 29, 2006), and Brighton, Colorado (November 30, 2006). CIG had its open house meetings transcribed and filed the transcriptions with the Secretary of the Commission. They are part of the record in this proceeding. [3]

On November 17, 2006, the FERC issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed High Plains Expansion Project, Request for Comments on Environmental Issues, and Notice of Site Visit and Open House Meeting Attendance* (NOI) that explained the Pre-filing Process; generally described the proposed Project; provided a preliminary list of environmental issues; notified the public that we would attend CIG's open house meetings and would conduct site visits of the

[3] The open house transcripts and written comment letters are available for viewing on the FERC Internet website (http://www.ferc.gov). Using the "eLibrary" link, select "General Search" from the eLibrary menu, enter the selected date range and "Docket Number" (*i.e.*, PF06-36-000 and/or CP07-207-000), and follow the instructions.

proposed facilities that were open to public participation; and requested written comments from the public. The NOI was sent to 742 parties, including federal, state, and local agencies; elected officials; environmental and public interest groups; Native American tribes; landowners whose properties were along the planned route; local libraries, newspapers, and television and radio stations; and other stakeholders in the region who had indicated an interest in the proposed Project. Opportunity was provided to remain on the Project's mailing list. If parties did not indicate they wanted to remain on the mailing list, they were subsequently removed from it. Publication of the NOI opened the time period for filing written comments on the proposed Project and established a closing date for the scoping period of January 6, 2007. However, we continued to review and accept comments after the close of the scoping period. Seven comment letters were filed about the proposed Project.

On May 7, 2007, the FERC issued a Notice of Application for the proposed Project. The notice announced that CIG's application had been filed with the Commission on April 27, 2007, informed 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 of May 29, 2007.

We prepared a draft EIS for the proposed Project and issued a Notice of Availability (NOA) on August 10, 2007. The draft EIS was also filed with the USEPA, and a formal was notice issued in the Federal Register (FR) on August 17, 2007, indicating that the draft EIS was available and had been mailed to individuals and organizations on the distribution list prepared for the Project (see appendix A of the draft EIS). The FR notice established a 45-day comment period that ended on October 1, 2007. The NOA described procedures for filing comments on the draft EIS and how information about the Project could be found on the FERC's internet website.

During the draft EIS comment period, we conducted a public comment meeting in Greeley, Colorado, on August 28, 2007. The meeting provided interested parties with an opportunity to present oral comments on our analysis of the environmental impacts of the proposed Project as described in the draft EIS. Three people commented at this meeting. In addition, we received written comments on the draft EIS from four federal agencies, the USFWS, the U.S. Department of Interior (DOI), the U.S. Environmental Protection Agency (USEPA), and the National Oceanic and Atmospheric Administration (NOAA); two Colorado state agencies, the Office of the State Engineer, Division of Water Resources and the Colorado Department of Natural Resources, Division of Wildlife; one local agency, the Town of Hudson; and four individuals (in six comment letters). The transcript from the draft EIS comment meeting and all written comments on the draft EIS are part of the public record for the Project. Our responses to these comments are provided in appendix Q of the final EIS. Table 1.4-1 summarizes the comments filed about the proposed Project and identifies where they are addressed in this final EIS. Changes made to the text of the final EIS are in response to these comments and to include updated information that was made available after publication of the draft EIS.

The final EIS was mailed to the agencies, individuals, and organizations on the mailing list provided in appendix A, and filed with the USEPA for issuance of a formal public notice of availability in the FR. In accordance with the CEQ's regulations implementing NEPA, no agency decision on a proposed action may be made until 30 days after the USEPA publishes a notice of availability of a final EIS. However, the CEQ regulations provide an exception to this rule when an agency decision is subject to a formal internal process that allows other agencies or the public to make their views known. In such cases, the agency decision may be made at the same time as the notice of the final EIS is published, allowing both periods to run concurrently. Should the FERC issue CIG authorization for the proposed Project, it would be subject to a 30-day rehearing period. Therefore, the Commission could issue its decision concurrently with the USEPA's notice of availability.

Table 1.4-1 – Environmental Issues and Concerns Identified During Public Comment Periods

Issue/Concern	EIS Section Addressing Issue/Concern
GENERAL	
Design and location of the pipeline, project schedule, land requirements, construction techniques	2.1, 2.2, 2.3, 2.4
Easement rights and restrictions, compensation for land use and damage to property, eminent domain, trespass	4.7.2
Inspection of contractors work	2.3.1, 2.5, 4.11.1
Future pipelines and other utilities	2.7, 4.12
Required permits and approvals	1.3
GEOLOGY	
Impacts on active gravel mines and future mining operations in the vicinity of the proposed pipeline	4.1.2
Potential for geological hazards to affect the integrity of the pipeline, particularly abandoned underground mines	4.1.3
SOILS	
Potential for severe erosion in areas of unconsolidated soils or steep terrain	4.2.3
Potential for reduced soil fertility due to topsoil and subsoil mixing, especially in areas of shallow shale	4.2.3
WATER RESOURCES	
Effects of the proposed Project on groundwater	4.3.1
Effects of the proposed Project on wetlands and waterbodies	4.3.2, 4.3.3
Impacts on irrigation and drainage as a result of cutting through irrigation pipes and canals and drain tiles, including long-term operation of canals and ditches	4.2.3, 4.3.2, 4.7.1
Potential for trench soil to settle below original grade and obstruct flood and pivot irrigation	2.3.1, 4.2.3
Potential for open-cut construction to affect water quality, waterbodies, and canals	4.3.2
Analysis of various waterbody crossing methods and the potential impacts associated with each	4.3.2
Impacts on water resources from hydrostatic test water appropriation and discharge, including water rights	4.3.2
FISH, WILDLIFE, AND VEGETATION	
Effects of the proposed Project on fish and wildlife and their habitat, including migratory birds	4.5
Effects of the proposed Project on natural grass pasture and short grass prairie	4.4.1
Potential for unsuccessful or slow revegetation, particularly because of the poor soils and arid conditions	4.4.1
Potential for invasion or spread of undesirable vegetation and noxious weeds	4.4.1, 4.4.4
THREATENED AND ENDANGERED SPECIES	
Potential for impacts on federal-listed or proposed threatened or endangered species or their critical habitat	4.6.1
Effects of hydrostatic test water appropriation from the South Platte River	4.6.1
CULTURAL RESOURCES	
Effects on known and undiscovered cultural resources	4.8.3
Native American and tribal concerns	4.8.2
LAND USE, RECREATION AND SPECIAL INTEREST AREAS, AND VISUAL RESOURCES	
Impacts on farming as a result of reduced soil fertility, disrupting irrigation, and damaging drainage	4.2.3, 4.4.1, 4.7.1
Impacts on grazing and livestock as a result of cutting fences and having an open trench in pasture land	4.7.1
Impacts on existing residences, including proximity of facilities to existing structures	4.7.3
Permanent land use changes due to pipeline easements and restrictions	4.7.2
Impacts on future land use and development, particularly the siting of houses and buildings	3.6.1, 3.6.2, 4.7.3

Table 1.4-1 (cont.) – Environmental Issues and Concerns Identified During Public Comment Periods

Issue/Concern	EIS Section Addressing Issue/Concern
Impacts on property values and marketability	4.9.5
SOCIOECONOMICS	
Potential effects of construction workforce demands on public services and temporary housing	4.9.2, 4.9.3
Potential benefits to local communities	1.1, 4.9.6
AIR QUALITY AND NOISE	
Effects of the proposed Project on air quality and noise during and after construction	4.10
RELIABILITY AND SAFETY	
Hazards associated with living near a natural gas pipeline and the potential for natural gas leaks and explosions	4.11
Potential hazards to natural gas pipelines, including wildfires	4.11.2
Landowner liability for pipeline incidents on their property	4.7.2
Locating the pipeline	4.11.1
Safe setbacks for living or working near a pipeline	4.11.1
Pipeline and facility security	4.11.4
ALTERNATIVES	
No-action alternative, system alternatives, and route alternatives	3.1, 3.4, 3.5
Ability to adjust the pipeline location and depth on a landowner's property to minimize effects on the property	3.6.1
Potential alternative for the 250A line about 7 or 8 miles east of its proposed location (Burroughs Alternative)	3.5.2
CUMULATIVE IMPACT	
Impacts of the proposed Project when combined with other actions in the same region	4.12
Potential for cumulative impacts on land use from siting numerous utilities within the same corridor	4.12.5

1.5 NONJURISDICTIONAL FACILITIES

Under Section 7 of the NGA, the FERC is required to consider, as part of its decision to certificate interstate natural gas facilities, all factors bearing on the public convenience and necessity. The facilities for the proposed Project that would be under the FERC's jurisdiction include about 163.7 miles of new pipeline facilities, 10 new metering facilities, 12 new pig[5] launchers/receivers, and 19 new mainline valves (MLVs). These facilities are described in detail in section 2.1.

Occasionally, proposed projects have associated facilities that do not come under the jurisdiction of the FERC. These "nonjurisdictional" facilities may be integral to the need for the proposed project (*e.g.*, a new or expanded power plant at the end of a pipeline that is not under the jurisdiction of the FERC) or they may be merely associated as a minor, non-integral component of the jurisdictional facilities that would be constructed and operated as a result of the proposed facilities.

There would be no nonjurisdictional facilities associated with the proposed Project.

[5] A pig is an internal tool that can be used to clean and dry a pipeline and/or to inspect it for corrosion or damage.