

# EXECUTIVE SUMMARY

**EXECUTIVE SUMMARY**

The Entrega Pipeline Project Environmental Impact Statement (EIS) has been prepared by the staff of the Federal Energy Regulatory Commission (FERC or Commission) with the cooperation and assistance of the Bureau of Land Management (BLM). The EIS was prepared to fulfill the requirements of the National Environmental Policy Act (NEPA); the Council on Environmental Quality regulations for implementing NEPA (Title 40 of the Code of Federal Regulations, Parts 1500 -1508 [40 CFR 1500 -1508]); the FERC's implementing regulations (18 CFR 380); and the BLM's right-of-way (ROW) grant regulations (43 CFR 2800 and 2880).

Entrega Gas Pipeline, Inc. (Entrega) proposes to construct, own, and operate a new natural gas transmission system in Colorado and Wyoming. The proposed facilities would be capable of transporting 1.5 billion cubic feet per day (Bcfd) of natural gas from supply basins in the central Rocky Mountains to the Cheyenne Hub (Weld County, Colorado). From these points, other interstate transporters would be able to ship the gas to markets in the West, the Midwest, and Central United States (U.S.).

In accordance with NEPA, this document's purpose is to inform the FERC decision-makers, the public, and other permitting agencies about the potential adverse and beneficial environmental impacts associated with the proposed project and its alternatives, and to recommend practical, reasonable, and appropriate mitigation measures that would reduce adverse impacts to the extent possible. Most of the environmental impacts would occur during the construction period. We considered and/or evaluated a range of system and route alternatives, route variations, and compressor station site alternatives.

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.
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**PROPOSED ACTION**

The purpose of the Entrega Pipeline Project (EPP) is to transport natural gas from supply basins in the Central Rocky Mountains to markets in the Midwestern and Central U.S. The need for the project is dictated by an increasing gas supply (production) in the Piceance and neighboring production basins that is not being matched by a concurrent increase in pipeline capacity to transport this gas to market.

Entrega would construct and operate 328.1 miles of 36- and 42-inch-diameter interstate natural gas pipeline. The 36-inch-diameter portion would extend between a new Meeker Hub Compressor Station in Rio Blanco County, Colorado, to a new Wamsutter Compressor Station in Sweetwater County, Wyoming. Here, interconnections with two existing interstate shippers would be established. From Wamsutter, the 42-inch-diameter portion would extend eastward to the Cheyenne Hub in Weld County, Colorado, where interconnections with three interstate shippers and one local distribution company would be made (**figure ES-1**). With these interconnections, the EPP would deliver gas into the nationwide transmission network with access to large markets west of Wamsutter and east or south of the Cheyenne Hub. Overall, Entrega's new transportation system would involve 3 compressor stations, 7 metering stations, 22 mainline valves, and other associated facilities. Entrega proposes to begin construction in the late summer of 2005.

# Non-Internet Public

## FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED ENTREGA PIPELINE PROJECT

Docket Nos. CP04-413-000, et al.

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Figure ES-1

Public access for the above information is available only through the Public Reference Room, or by e-mail at [public.referenceroom@ferc.gov](mailto:public.referenceroom@ferc.gov).

**PUBLIC INVOLVEMENT**

On May 3, 2004, the FERC issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Planned Entrega Gas Pipeline Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings and Route Inspection* (NOI). This document briefly described the project components, invited written comments from the public on the proposal, and listed the date and location of four public scoping meetings to be held in communities along the route. The NOI was sent to about 1,670 entities on a mailing list that included the landowners crossed and/or adjacent to the proposed ROW; federal and state agencies; Native American tribes; non-governmental and environmental organizations; libraries; the media; and other potentially interested citizens.

We<sup>1</sup> held public scoping meetings in Cheyenne, Wyoming (June 7, 2004), Rawlins, Wyoming (June 8, 2004), Craig, Colorado (June 9, 2004), and Meeker, Colorado (June 10, 2004). During the same time period, we organized and conducted separate “agency scoping” meetings with federal and state agency representatives, and local officials to solicit input and coordinate our review of the proposed project. These meetings were held in Rawlins (June 8, 2004), Craig (June 9, 2004), and Meeker (June 10, 2004).

In addition to oral and written comments received during agency and public scoping meetings, the Commission received written comments during and after the close of the public scoping period (June 15, 2004). In total, 38 written correspondences<sup>2</sup> containing project comments were received. Each letter was evaluated and comments were divided into issue groups. When written comments were combined with oral meeting comments, 166 individual comments were received.

The draft EIS<sup>3</sup> was filed with the U.S. Environmental Protection Agency (EPA) and mailed to 862 federal, state, and local agencies, elected officials, Native American tribes, newspapers, public libraries, intervenors to the FERC’s proceeding, and other interested parties. Four public meetings were held in the project area to receive comments on the draft EIS. These meetings were conducted in Cheyenne, Wyoming (April 11, 2005); Rawlins, Wyoming (April 12, 2005); Craig, Colorado (April 13, 2005); and Meeker, Colorado (April 14, 2005). Oral comments were received from 12 local agency officials, 1 company representative, 3 representatives of private organizations, and 4 individuals. Written comments were received from 4 federal agencies, 1 state agency, 6 local agencies, 1 company, 1 organization, 2 individuals, and the project applicant. The final EIS<sup>4</sup> was mailed to approximately 808 federal, state, and local agencies; elected officials, Native American tribes; newspapers; public libraries; intervenors to the FERC’s proceeding; and other interested parties who provided scoping comments, commented on the draft EIS, or wrote to the FERC asking to receive a copy of the document.

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<sup>1</sup> We, “us,” and “our” refer to the environmental staff of the Commission’s Office of Energy Projects. Unless specifically identified otherwise, the recommendations and conclusions presented in the EIS are those of the FERC staff.

<sup>2</sup> Written correspondences included letters, Return Mailers (attached to our NOI), and electronic mail. The Commission also received one Congressional correspondence.

<sup>3</sup> Includes the stand-alone Executive Summary, which was sent to some recipients rather than the full draft EIS.

<sup>4</sup> Like the draft EIS, the final EIS was distributed to recipients either as a stand-alone Executive Summary or as a full EIS.

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### AREAS OF CONCERN RAISED BY COMMENTORS

Issues raised during scoping and during the comment period on the draft EIS included project purpose and need; scope of the analysis; alternatives; permits and regulations; construction procedures; land use issues; effects on soils, water, vegetation, wildlife, threatened and endangered species, cultural resources, and air quality; weed management; socioeconomic effects; noise impacts; public safety; cumulative impacts; and compensation and easement agreements. These concerns and others have been addressed in this EIS.

### PROJECT IMPACTS

Table ES-1 summarizes impacts associated with the EPP.

**Table ES-1**  
**Summary of Environmental Impacts Associated with the Construction of the Entrega Project**

Resource Area/Impact	Facilities
Total Project length (miles)	328.1
Total acres of land temporarily disturbed	5,371
<b>GEOLOGY</b>	
Potential active faults crossed	0
Miles of landslide potential <sup>1</sup>	89
Miles of Condition 1 geologic units crossed	123
<b>SOILS</b>	
Miles of prime farmland crossed	0
Miles of soil with significant inherent limitations for restoration <sup>2</sup>	290
<b>WATER SUPPLY</b>	
Number of major near-surface aquifer systems underlying the EPP	2
Number of designated sole source aquifers underlying the EPP	1
Number of springs located within 150 feet	2
Number of private water supply wells within 150 feet	12
Number of public water supply wells or wellhead projection areas within 400 feet	0
Number of surface water intakes within 3 miles downstream of waterbody crossings	2
<b>WATER QUALITY</b>	
Number of perennial stream crossings	43
Number of intermittent stream crossings <sup>3</sup>	352
Number of major river crossings <sup>4</sup>	4
Acres of wetland/riparian habitat disturbed during construction <sup>5</sup>	46
<b>LAND USE</b>	
Miles of federal land crossed	105
Miles of state/local land crossed	42
Acres of agricultural land temporarily disturbed	185
Number of residential structures located within 50 feet of construction ROW	1
Number of Special Interest Areas crossed <sup>6</sup>	13
<b>VEGETATION AND WILDLIFE</b>	
Acres of grasslands and shrublands affected by construction	4,746
Acres of riparian woodland affected by construction	224
Miles of big game habitat crossed	104
Number of sage grouse leks within 2 miles	38
Number of federally listed or proposed threatened or endangered plant species potentially affected due to ROW construction	4

Table ES-1 (Continued)

Resource Area/Impact	Facilities
Number of federally listed or proposed threatened or endangered plant species potentially affected due to downstream effects of water withdrawals	1
Number of BLM sensitive plant species potentially affected by ROW construction	6
Number of federally listed or proposed threatened or endangered wildlife species potentially affected due to ROW construction	4
Number of federally listed or proposed threatened or endangered wildlife species potentially affected due to downstream effects of water withdrawals	5
Number of BLM sensitive wildlife species potentially affected by ROW construction	17
<b>FISHERIES</b>	
Number of warmwater fisheries crossed	8
Number of coldwater fisheries crossed	24
Number of federally listed or proposed threatened or endangered fish species potentially affected due to ROW construction	1
Number of federally listed or proposed threatened or endangered fish species potentially affected due to downstream effects of water withdrawals	5
Number of BLM sensitive fish species potentially affected by ROW construction	4
<b>CULTURAL RESOURCES</b>	
Number of known sites within Area of Potential Effect (APE)	220
Number of recommended or eligible sites in Colorado/Wyoming	40/45
<b>SOCIOECONOMICS</b>	
Peak workforce size	1,470
Number of temporary new jobs created	1,940
Number of permanent new jobs created	6 - 8
Initial aggregate valuation for Colorado/Wyoming	\$55.9 M/\$47.0 M
Long-term aggregate valuation for Colorado/Wyoming	\$22.4 M/\$18.8M
<b>AIR QUALITY</b>	
Number of new compressor stations	3
Number of compressor stations requiring Prevention of Significant Deterioration (PSD) review	0
Number of Title V Major Sources	1
<b>NOISE QUALITY</b>	
Number of compressor stations meeting 55 dBA at property line	1
<b>TRANSPORTATION</b>	
Number of access roads <sup>7</sup>	225
Number of road and railroad crossings <sup>8</sup>	62
<b>PUBLIC SAFETY</b>	
Number of potential High Consequence Areas (HCAs) <sup>9</sup>	2
<b>VISUAL RESOURCES</b>	
Miles of Class I or Class II visual impacts <sup>10</sup>	0

<sup>1</sup> Landslide potential exists if slope is >15%.

<sup>2</sup> Inherent limitations include soils defined as highly erodible (wind and/or water), prime farmland, hydric, compaction prone, stony-rocky, shallow bedrock, and/or droughty.

<sup>3</sup> Includes ephemeral streams, canals, and irrigation ditches.

<sup>4</sup> Defined as river crossings greater than 100 feet.

<sup>5</sup> Construction impacts are based on a 75-foot-wide ROW centered over the pipeline. Some wetlands are not crossed by the centerline but are located within the construction ROW.

<sup>6</sup> An additional Special Interest Area (Medicine Bow National Forest) is approached, but not crossed, by the project.

<sup>7</sup> All proposed temporary access roads already exist. The only proposed permanent access roads are short roads to aboveground facilities that would be within the permanent ROW.

<sup>8</sup> Enumerated road crossings include only county roads and larger.

<sup>9</sup> HCAs are OPS-defined areas where a pipeline accident could do considerable harm to people and their property.

<sup>10</sup> Visual impacts classified using the BLM Visual Resource Management (VRM) designations.

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Construction of the proposed EPP would disturb approximately 5,371 acres of land, including the pipeline construction ROW, additional temporary workspace areas, aboveground facility sites, and pipe storage and contractor yards. Approximately 2,074 acres of the 5,371 acres used for construction would be required for operation of the project. The remaining 3,297 acres of land would be restored and allowed to revert to former use.

Approximately 44 percent of the land affected by construction and operation of the EPP would be public lands and 56 percent would be private lands. Of the total public lands, the BLM manages 72 percent, the State of Colorado manages 12 percent, the State of Wyoming manages 10 percent, and local governments manage 6 percent.

### **Geology (Minerals, Geologic Hazards, Paleontology)**

Project construction and operation would not alter existing topography because the construction ROW would be recontoured to match the adjacent terrain. The EPP would not interfere with oil and gas drilling, or any current active mining operations. Because the proposed pipeline would be located adjacent to existing pipelines where they cross shallow coal beds, construction of the EPP would not further reduce access to underlying coal. Potential for earthquake damage from ground shaking and subsidence is very low. Based on the operating experience of existing pipelines, pipeline damage could occur in Rio Blanco and Moffat Counties, Colorado from flash flood debris flows, and sinkholes near stream channels. No permanent aboveground facilities would be located within 100-year floodplains. The EPP would cross approximately 123 miles of geologic formations that contain vertebrate fossils, and noteworthy occurrences of invertebrate and plant fossils. Entrega has conducted pre-construction surveys, and would monitor pipeline construction to protect or recover important fossils.

### **Soils and Invasive Plant Species**

The majority of the EPP would cross arid to semi-arid native rangelands underlain by shallow, droughty soils that are susceptible to wind and water erosion. Other constraints include rocky soils, and alkaline soils. The EPP would not cross prime farmland soils. Entrega would restore the productivity and surface drainage across approximately 15 miles of irrigated hay lands. Entrega would preserve topsoil by limiting soil stripping to the area over the pipeline trench; implementing best available erosion control practices included in its project-specific *Erosion Control, Revegetation, and Maintenance Plan* (Entrega's Plan) and the BLM Plan of Development (POD); and applying revegetation seed mixtures appropriate for the climate and land uses. We have supplemented Entrega's proposed mitigation with additional recommendations to address the control and spread of weeds along the ROW, including pre-construction weed treatments and continuing weed control along the ROW for the life of the project.

### **Water Resources**

Entrega would not use groundwater during construction or operation. We have recommended that Entrega monitor water supply wells and systems near areas where blasting would be conducted, and restore any water supply wells/systems damaged by construction. The EPP would involve 43 perennial waterbody

crossings. We have recommended that Entrega reroute its pipeline to reduce the number of crossings of Piceance Creek. A horizontal directionally drilled (HDD) crossing would be done at two rivers (White River, Yampa River) to avoid adverse effects on a federally listed fish species. The remaining rivers and streams would be open-cut in accordance with Entrega's project-specific Wetland and Waterbody Construction and Mitigation Procedures (Entrega's Procedures) or site-specific waterbody crossing plans. In order to hydrostatically test the proposed pipeline, Entrega would use approximately 61.6 million gallons of water from six different rivers; just over half of the water would be obtained from the North Platte River under a purchase agreement with Bureau of Reclamation. The pipeline would cross about 4 miles of delineated wetlands. To minimize wetland impacts, measures from Entrega's Procedures would be implemented which we believe would provide a satisfactory level of environmental protection.

### **Vegetation**

The EPP would disturb approximately 1,554 acres of grassland, 3,192 acres of shrublands, 212 acres of agricultural land (includes irrigated hayfields), and 224 acres of woodlands with the remaining acres consisting of open areas (areas displaying no vegetation characteristics such as bare rock or open water). Entrega would implement its project-specific Construction, Mitigation, and Reclamation Plan to stabilize and re-seed disturbed areas to restore wildlife and livestock grazing uses. Entrega would be required to implement site-specific measures to avoid or reduce the loss of larger trees in riparian woodland areas at stream and river crossings. We have recommended that Entrega commit to additional protective measures while crossing riparian woodlands and restoring these areas. Additionally, we have recommended that Entrega reroute the pipeline or directionally drill the Medicine Bow River to reduce impacts to riparian woodlands. Revegetation success along the ROW would be monitored for several years by the FERC and BLM staffs. Because of limited rainfall and high evaporation rates, native vegetation community recovery would be long-term, ranging from a minimum of 5 to 7 years in grasslands, 20 to 30 years in shrublands, and more than 50 years in woodland communities.

### **Fish and Wildlife**

Entrega would construct across 32 different waterbodies in Colorado and Wyoming that support fish species, including 8 that support warmwater species and 24 that support coldwater species. Entrega would avoid bank and channel disturbance to the White and Yampa Rivers by using the HDD crossing method. The remaining streams and rivers would be open-cut (trenched) in accordance with Entrega's Procedures or site-specific crossing plans. Entrega would avoid construction of crossings during state agency coldwater and warmwater fisheries spawning periods. Open-cut crossings would cause short-term (usually 3 days or less) suspended sediment increases in stream and river channels.

Entrega proposes to withdraw hydrostatic test water from six perennial water sources (White River, Yampa River, Little Snake River, North Platte River, Rock Creek, and the Little Laramie River). Hydrostatic test water discharges could result in a change in water temperature and dissolved oxygen levels, increased downstream flows, and contribute to streambank and substrate scour. In order to minimize impacts to aquatic resources, Entrega would use energy dissipating devices and/or filter bags to prevent erosion, streambed scour, suspension of sediments, and excessive streamflow during test water discharge. Entrega

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would discharge test water directly into surface waters unless otherwise authorized or required by its NPDES permits.

The EPP would disturb wildlife habitat, displace individual animals, and contribute to habitat fragmentation by expanding existing pipeline corridors. The proposed route would cross approximately 29 miles of critical elk, mule deer, and pronghorn winter habitat in Colorado; and 33, 51, and 8 miles of mule deer, pronghorn, and elk crucial winter habitat in Wyoming, respectively. In addition, the pipeline would cross three State Wildlife Areas (SWAs) in Colorado, and two Wildlife Habitat Management Areas (WHMAs) in Wyoming. Entrega would avoid construction within designated big game wintering areas during seasonal closure periods, and would install ditch plugs with ramps that would allow animals to cross over open ditch sections and escape from the ditch. Disturbed winter habitat areas would be re-seeded with mixtures approved by state wildlife agencies and the BLM. Our recommendations for big game ranges and ditch plug spacing would further reduce impacts on wildlife.

Entrega's proposed construction schedule would overlap the breeding season for many migratory birds. Entrega would conduct pre-construction raptor nesting surveys and would abide by appropriate buffer zones and seasonal construction restrictions to prevent or minimize impacts on nesting raptors. For other migratory bird species (particularly ground nesting birds), nests (eggs and young) could be lost because of surface disturbance. We believe that these losses would not result in long-term or significant population level impacts.

### **Special Status Species**

We are requesting that the U.S. Fish and Wildlife Service (FWS) consider this EIS as the Biological Assessment for the proposed project. Our recommended protection measures and effects determinations are discussed below.

Five federally listed plant species (Colorado butterfly plant, Dudley Bluffs bladderpod, blowout penstemon, Dudley Bluffs twinpod, and Ute ladies'-tresses) could potentially occur within the pipeline construction ROW. Entrega would conduct pre-construction surveys to determine the potential presence of these species prior to construction. If listed plant populations are found, we have recommended that Entrega notify the FWS and FERC to determine the most appropriate methods for avoiding or minimizing the loss of individual plants. Based on Entrega-committed and our recommended protection measures, we have determined that the EPP may affect, but is not likely to adversely affect these plant species.

The proposed facilities would require construction across four major perennial rivers (the White, Yampa, Little Snake, and North Platte). Of these, Entrega has proposed to directionally drill the White and Yampa Rivers to avoid potential impacts to four federally listed fish species. The Colorado pikeminnow and its designated critical habitat are present at the proposed White and Yampa River pipeline crossings. Based on Entrega's HDD crossing plan and a seasonal construction timing window, we have determined that the EPP may affect, but is not likely to adversely affect this fish species or its critical habitat.

Populations of three other fish species (bonytail chub, humpback chub, razorback sucker) were determined to be greater than 30 miles downstream in both rivers, and therefore it is unlikely they would be affected by

river crossing activities. We have concluded that the EPP may affect, but is not likely to adversely affect these species or their critical habitat.

Entrega proposes to withdraw hydrostatic test water from the North Platte River, Little Laramie River and Rock Creek located within the Platte River Basin. The FWS has expressed concern about the potential downstream impacts on seven federally listed species (bald eagle, whooping crane, piping plover, Eskimo curlew, interior least tern, pallid sturgeon, and western prairie-fringed orchid) resulting from water depletions. We are requesting that the FWS determine whether the proposed water withdrawals and the return of the water to the same water sources would represent a depletion. If this temporary use is considered a depletion, we request that the FWS consider the EIS our initiation of formal consultation under Section 7 of the Endangered Species Act (ESA).

Entrega also proposes to withdraw hydrostatic test water from the Yampa River, White River, and Little Snake River within the Colorado River drainage. Hydrostatic test water withdrawals would be subject to seasonal restrictions, and potentially would be subject to payment of Colorado River threatened and endangered fish recovery fees. We are requesting that the FWS determine whether the proposed water withdrawals from these rivers and the return of this water to the same water sources would represent a depletion. If this temporary use is considered a depletion, we request that the FWS consider the EIS our initiation of formal consultation under Section 7 of the ESA. We also have recommended that Entrega coordinate with the FWS on the timing of water withdrawal from these rivers to avoid or minimize potential impacts to Colorado River endangered fish species.

One federally listed amphibian (Wyoming toad), one bird (bald eagle), and two mammals (black-footed ferret, Preble's meadow jumping mouse) potentially occur in the project area. Based on known occurrence patterns, and Entrega-committed and our recommended habitat and population protection measures, we have determined that the EPP may affect, but is not likely to adversely affect the bald eagle, black-footed ferret, and Preble's meadow jumping mouse. We have determined that the EPP would not affect the Wyoming toad.

The EPP would cross within 2 miles of 38 historic sage grouse leks (strutting grounds). To prevent disruption of breeding activities, pre-construction surveys would be completed to determine active lek sites. Entrega would avoid construction between March 1 and June 30 where the pipeline would be located within 2 miles of an active lek site. In addition, we recommend that Entrega minimize habitat impacts to lek sites by reducing the width of the ROW to 75 feet within 0.25 mile of a lek. Entrega would not construct aboveground facilities within 0.25 mile of a lek. Appropriate seed mixtures would be applied to recover sage grouse habitat.

The EPP could potentially affect BLM sensitive species, including 6 plants, 6 mammals, 8 birds, 2 amphibians, 1 reptile, and 4 fish. Based on Entrega-committed protection measures and our analysis, we have concluded that while there may be effects on individuals, construction and operation of the EPP would not cause a trend toward federal listing or loss of species viability.

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### **Land Use, Recreation, and Visual Resources**

The primary land use crossed by the EPP would be rangeland that is used for livestock grazing. The proposed construction work area (i.e., the construction ROW and temporary additional workspaces) would not be located within 50 feet of any occupied residences. A total of 5,371 acres would be disturbed during construction, and 2,074 acres would be dedicated to pipeline utility uses for the project life. Of this area, 83 acres would underlie aboveground facilities (compressor stations, metering stations, and associated powerlines). The remainder of the land commitment would be for the operational pipeline ROW. The EPP would conform to existing federal land use plans, and would acquire required permits and approvals to construct across state lands. The proposed pipeline would cross approximately 1 mile of a planned development near Laramie, Wyoming. The pipeline would be located within an existing utility corridor where it crosses this proposed development.

The EPP would not cross or affect any developed recreation areas. In Colorado, the project would cross three Colorado Division of Wildlife (CDOW) management areas. In Wyoming, the proposed pipeline would cross six BLM special management areas and two Wyoming Game and Fish Department (WGFD) WHMAs. Pipeline construction could overlap with summer use of these special management areas, and may extend into the fall big game hunting seasons. Entrega would coordinate with the agency owners of these areas to minimize conflicts with recreational user access to these areas. We have recommended that Entrega develop and implement a plan to avoid conflicts with recreational boater use at the North Platte River crossing site.

The EPP would generally be located in remote rural areas of Wyoming and Colorado, and would be located in or immediately adjacent to existing pipeline utility corridors over nearly its entire route. The EPP would be consistent with BLM Class III and IV Visual Resource Management (VRM) criteria. Entrega has agreed to additional mitigation measures (including construction ROW width reduction) to decrease the visibility of the pipeline ROW to the public in two sensitive areas (the North Platte River crossing at milepost [MP] 192.8, and the SeaWest Windfarm at MP 236.2). Proposed aboveground facilities (compressor stations, metering and pigging facilities) would be located near other existing aboveground facilities. An exception is the Bighole Compressor Station, which would be located in a remote rural location next to a Moffat County, Colorado road on private land. Aboveground facilities would be painted with a color(s) that would conform to the applicable BLM VRM standards.

### **Cultural Resources**

Cultural resource inventories have been conducted along the proposed route. The surveys identified 73 cultural resource sites in Colorado, and 147 sites in Wyoming within the surveyed area. Of these sites, 40 sites in Colorado and 45 sites in Wyoming have been recommended or have been officially determined eligible for listing on the National Register of Historic Places (NRHP). Entrega is currently conducting surveys to determine reroute options to avoid known or potentially NRHP-eligible sites. Additional investigations are recommended at a number of cultural resource sites to determine their NRHP eligibility. One access road in Colorado remains to be surveyed.

The process of fully complying with Section 106 of the National Historic Preservation Act has not yet been completed for the EPP. Surveys and evaluative testing have not been completed and reroutes to avoid eligible sites have not been finalized. Once evaluations are complete and it has been determined which sites can or cannot be avoided, the FERC, in consultation with the BLM and the State Historic Preservation Offices (SHPO), would make final determinations of NRHP eligibility and project effects. If historic properties would be adversely affected, a treatment plan to mitigate any adverse effects would be prepared in consultation with the appropriate parties. Once a treatment plan is approved, Entrega would implement the specified treatment measures before notice to proceed with project construction is authorized in any given area. Implementation of treatment would occur only after certification of the proposed project. The FERC would ensure that treatment is carried out.

### **Socioeconomics and Transportation**

Entrega proposes to employ between 1,000 and 1,100 workers in two workforces (spreads) to construct the Meeker Hub-to-Wamsutter pipeline segment in the summer and fall of 2005. The Wamsutter-to-Cheyenne Hub pipeline segment would be constructed in two spreads during the summer and fall of 2006, with a peak workforce of approximately 1,470 workers that includes construction of the 3 compressor stations scheduled for late 2006 and early 2007. The dispersed construction would reduce the number of workers requiring temporary housing in the vicinity of pipeline work areas. We anticipate that temporary housing would be very limited in Rio Blanco and Garfield Counties, Colorado, based on the quantity of temporary housing and ongoing energy development activities.

We anticipate increased short-term demand for public services, particularly for emergency medical response. Long-term demands for public services would not occur because of the small operational workforce. Local communities would receive short-term benefits from worker goods and services expenditures, and long-term benefits from property taxes. The aggregate assessed valuation for pipeline and aboveground facilities was estimated to be \$102.9 million, of which 46 percent of the value would be in Wyoming, and 54 percent in Colorado. Total annual property tax on this aggregate valuation was estimated to be \$6.0 million. These tax revenues would typically be used by local and state governments for infrastructure improvements such as roads, schools, and health facilities, and to meet other needs of the community.

Entrega would acquire land for its pipeline through easement agreements with private landowners. Potential impacts on land values from construction of a new pipeline are highly site-specific. Permanent structures could not be built over the pipeline, but existing land uses, such as livestock grazing, could continue as before. Our analysis concludes that there would be no disproportionate economic or public safety effects on minority or low-income communities because of EPP construction and operation.

Entrega would limit delays and damage to state and federal highways by boring beneath them. Smaller roads would be trenched, which would cause short-term delays. Construction of the EPP would utilize a variety of secondary roads. Use of these roads would be subject to weight restrictions. The roads acceptable for use, traffic management procedures, and the procedures for repairing BLM, county, and state roads are included in Entrega's Traffic and Transportation Management Plan.

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### **Air Quality and Noise**

Construction of the pipeline and aboveground facilities would generate short-term fugitive dust during clearing and grading activities, and along roadways. Entrega has committed to control fugitive dust using water and/or approved chemical dust suppressants. Entrega would install natural gas-fired compressors at three new compressor stations (two in Colorado, one in Wyoming). Entrega would acquire operating permits from Colorado and Wyoming from air quality permitting agencies, which may impose permit conditions to ensure that compressor station operations would meet air quality standards.

The three compressor stations would be located in rural locations. The nearest noise-sensitive area (NSA) to the Bighole and Wamsutter Compressor Stations would be over 1.5 miles away, while the Meeker Hub Compressor Station would be located about 2,000 feet from the nearest NSA. Entrega would be required to meet the FERC 55 decibels on the A-weighted scale (dBA) standard and conduct noise measurements when operations begin to verify compliance. In order to minimize potential impacts to surrounding wildlife, Entrega has committed to limit noise levels attributable to compressor station operation to a day-night (average sound) level ( $L_{dn}$ ) of 55 dBA at the property line of the Bighole Compressor Station.

### **Reliability and Safety**

Entrega would comply with U.S. Department of Transportation pipeline materials and construction standards for natural gas pipelines. Where located in a utility corridor with other pipelines, the Entrega pipeline would be typically offset a minimum of 40 feet from adjacent pipelines, which greatly reduces the risk of pipeline damage from any repair activities on adjacent pipelines. After construction, Entrega must initiate a pipeline integrity management plan. As part of its plan, Entrega must identify high consequence areas (HCAs), which are typically residential areas, or areas where people congregate. Two potential HCAs were identified: the Rio Blanco Lake SWA on the White River (MP 15.5), and the Wyoming State Penitentiary at Rawlins (MP 179.0). The portions of the pipeline located in HCAs would be inspected every seven years. The rate of public fatalities for the nationwide mix of transmission and gathering lines in service is 0.01 per year per 1,000 miles of pipeline. Using this rate, an EPP accident might cause a public fatality every 305+ years.

### **Cumulative Impacts**

We identified existing and foreseeable projects that overlap, or could overlap with the EPP in time and space throughout the length of the pipeline. The major existing projects are one or more existing pipelines that the EPP would parallel over nearly the entire length of the pipeline. The major foreseeable projects are:

- EnCana's Meeker Pipeline and Gas Plant Project, located in Rio Blanco and Garfield Counties, Colorado; and
- Wyoming Interstate Company, Ltd.'s (WIC) Piceance Basin Expansion Project (PBEP), a 24-inch-diameter natural gas pipeline that would be constructed in the same pipeline corridor as the EPP over a distance of about 94 miles. The following are the primary cumulative impacts identified:

1. Construction of the EPP would expand the width of existing pipeline corridors, particularly where the Entrega and WIC pipelines would be routed adjacent to one another or within the same existing pipeline corridor. There would be a corresponding expansion of wildlife habitat discontinuities in shrubland and woodlands, which may inhibit or limit wildlife movements, and increase predation rates on certain species, such as sage grouse.
2. Construction of the proposed pipeline would coincide with construction of up to four EnCana pipelines over a 2.5-mile-long segment along Piceance Creek, which would result in short-term cumulative surface disturbance impacts to stream channels, wetlands, and irrigated pasturelands.
3. The pipeline construction workforces for the EPP and PBEP could overlap between the Yampa River and Wamsutter during the summer and fall construction seasons of 2005, which could cause cumulative increases in short-term demand for temporary housing, and local congestion on secondary roads that would be used by both projects.

### **ALTERNATIVES CONSIDERED**

We have considered the No Action or Postponed Action Alternative, which would deny or defer the proposed project. While these alternatives would eliminate the environmental impacts identified in this EIS, they also would deny U.S. markets access to the 1.5 Bcfd of natural gas which the EPP would transport.

We evaluated possible system alternatives including the use of other existing pipeline systems or the use of the WIC's proposed PBEP. Existing interstate natural gas pipelines that traverse the Piceance Basin are currently fully subscribed. No other existing pipeline system could be expanded without causing surface disturbance comparable to that resulting from construction of the EPP. Use of the PBEP as proposed would not meet Entrega's purpose and need because the pipeline would terminate at Wamsutter rather than continuing on to the Cheyenne Hub.

We also considered the option of combining the Entrega and WIC pipelines into a single pipeline. While attractive in concept, given the increased drilling activity over the past few years and the projections of increased gas production in the Uinta-Piceance Basin, construction of two pipelines would provide more flexibility for future expansion when compared to one pipeline.

Transportation of the volumes of gas associated with both projects would approach Entrega's maximum allowable operating pressure (MAOP). Additional gas could only be transported by adding more horsepower at intermediate compressor stations (midway between Meeker Hub and Bighole and between Bighole and Wamsutter). As the system approaches its MAOP, this scenario becomes uneconomic and a pipeline loop would be proposed. However, if both the Entrega and Piceance Basin Expansion Pipelines were constructed, both could be economically expanded when future production becomes available. We also note that the "one-pipe" alternative would present a number of other challenges and that melding the various factors and requirements (receipt points and pressures, delivery points and pressures, scheduling terms and conditions etc.) of each individual system into a common system would be extremely difficult.

## **EXECUTIVE SUMMARY**

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We evaluated the differences in environmental impacts if the PBEP route were substituted for the initial 33.2 miles of Entrega's pipeline (PBEP Route Alternative). This alternative would require construction of a 7-mile-long linking pipeline between Piceance Creek and the Greasewood Hub. Entrega's proposed pipeline would then follow the PBEP route to Entrega MP 33.2. We determined that pipeline construction along the PBEP route as compared to Entrega's proposed route would result in more overall surface disturbance because of the greater length of the PBEP, more disturbance in shrublands and woodlands that recover slowly, and more disturbance to big game and sage grouse winter ranges. However, following the PBEP route would not require any crossings of Piceance Creek and associated irrigated pastures and wetlands. We conclude that, with the recommended route realignments to reduce the number of crossings of Piceance Creek, Entrega's proposed route would be the preferred route.

As an extension of the PBEP route alternative analysis, we examined two alternatives for collocating the proposed Entrega and WIC projects in the same 150-foot-wide construction ROW between the origin of each project and Entrega MP 33.2 (Collocation Alternative – Danforth Hills South). One alternative would collocate both projects along the EPP route; the second alternative would collocate both projects along the PBEP route. Both alternatives would require construction of a 7-mile-long linking pipeline between the proposed Greasewood and existing Meeker Hub. We determined that collocation would reduce overall surface disturbance relative to constructing the two projects separately along the respective proposed routes. As described for the PBEP route alternative, we found that resource effects differed when the two collocation alternatives were compared. Following the EPP route along the Piceance Creek valley would result in multiple crossings of Piceance Creek, and a larger disturbance in irrigated pasture and haylands, which are expected to recover quickly. Constructing along the PBEP route would avoid impacts on Piceance Creek and the associated floodplain, but would remove much larger areas of shrublands and woodlands, which recover slowly. Use of the PBEP route also would affect a larger area of winter big game and sage grouse ranges. The two separate routes that Entrega and WIC have proposed between MPs -0.5 and 33.2 are a direct result of each project having a different starting point. Each applicant proposed a route that largely circumvents Colorow Mountain. Based on terrain, safety, and ROW constraints, the simultaneous construction of these projects within a 150-wide ROW is not possible. Increasing the ROW width (not an option in all areas due to topography) would increase the impact on the resources used in our comparison, and reduce any advantages of the Danforth Hills South Collocation Alternative. We conclude that, with the recommended route realignments to reduce the number of crossings of Piceance Creek, Entrega's proposed route would be the preferred route.

We also examined a collocation alternative north of the Yampa River, where we evaluated the extent to which long-term disturbance of sage grouse habitat could be reduced by collocating the two projects in the same 150-foot-wide ROW (Collocation Alternative – Danforth Hills North). We estimated that 254 less acres of sage grouse habitat would be disturbed if the two projects were collocated across 31 miles of sage grouse breeding and brooding habitat north of the Yampa River. There are a number of construction constraints in this area. We determined that Entrega's proposed route would be the preferred route.

Four minor route variations (Pine Tree Gulch Variation, Park Meadows Variation, Cheyenne Hub and Piceance Creek Variations) from Entrega's originally-proposed route were reviewed. Use of the Pine Tree Gulch Variation would avoid livestock water developments and productive grazing land along a stream

drainage, which were issues raised by the affected landowner. Entrega has adopted this variation as its proposed route.

We determined that the Park Meadows Variation was not environmentally advantageous because the variation is longer (more surface disturbance), would be more difficult to revegetate, and, by deviating from the existing pipeline/utility corridor would create future land use constraints on an adjacent landowner.

Based on a landowner request, Entrega developed two Cheyenne Hub Variations (A and B). Variation A would terminate the EPP on the south side of the existing Cheyenne Compressor Station rather than the north side, as proposed. Variation B would parallel the proposed route and terminate on the north side of the existing compressor station, but at a slightly more southerly location compared to the proposed route. The primary considerations involve land ownership (private versus public); expansion of utility uses north of the Hub; new surface disturbance versus use of the existing pipeline corridor; and construction issues (the number of existing utilities that would be crossed by delivery laterals associated with the EPP). Since the draft EIS, Entrega has adopted Variation A as its new proposed route.

Following our examination of the first 14 miles of Entrega's route along the Piceance drainage, we recommended realignments, which would reduce the number of Piceance Creek crossings from 11 to 6.

The possibility of relocating the Bighole Compressor Station was evaluated; however, no alternative site offered a clear environmental advantage over the proposed site. Consequently, no alternative site is recommended.

### **SIGNIFICANT UNAVOIDABLE IMPACTS**

The project would result in limited adverse environmental impact. Effects on all environmental resources were evaluated to determine any significant impact that would remain so after application of the mitigation proposed by Entrega. We then considered practical, appropriate, and reasonable measures which would further reduce potential project-related impacts. As a result, we developed additional mitigation which we are recommending be included as specific conditions to any Certificate issued by the Commission. Our analysis indicates that with the application of Entrega's mitigation and implementation of our recommendations below, the proposal would result in no significant impact that is unavoidable. Further, we believe that all environmental impacts would be reduced to less than significant levels if the proposed and recommended mitigation is fully implemented.

### **CONCLUSIONS**

The conclusions and recommendations presented in this section are those of the FERC environmental staff. While our conclusions and recommendations were developed with input from the BLM as a cooperating agency, the BLM will present its own conclusions and recommendations in its ROD for the EPP.

Review of the information provided by Entrega and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, state, and local agencies, and individual members of the public indicate that the proposed project would result in limited

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adverse environmental impact during construction and operation. We conclude that if the project were constructed and operated in accordance with applicable laws and regulations, Entrega's proposed mitigation, and additional mitigation recommendations, it would be an environmentally acceptable action. Although many factors were considered in this determination, the principal reasons are:

- 94 percent of the proposed pipeline would be located within 300 feet of existing pipeline, utility, and road ROWs. Where Entrega's proposed pipeline would parallel existing pipelines, it would generally be installed at a 40-foot offset from the nearest pipeline centerline;
- the project would be consistent with or in conformance with federal resource management plans;
- Entrega would implement a number of resource- or activity-specific plans, procedures, and agreements to protect natural resources, avoid or limit environmental impact, and promote restoration of all disturbed areas during construction and operation of the project;
- the use of the HDD method would avoid disturbances to the beds and banks of the White and Yampa Rivers;
- the appropriate consultations with the FWS, the SHPOs, the BLM, other affected land management agencies, and any appropriate compliance actions resulting from these consultations, would be completed before Entrega would be allowed to begin construction in any given area; and
- an environmental inspection program would be implemented to ensure compliance with all mitigation measures, Certificate conditions, and requirements contained in the POD.

In addition, we have developed specific mitigation measures (including a compliance monitoring program) to further reduce the environmental impact that would otherwise result from construction of the project. The additional studies or field investigations which we recommend typically result in site-specific mitigation and further reduction of impact; therefore, we are recommending that these mitigation measures be attached as conditions to any Certificate issued by the Commission.