

**.S. Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652**

ENVIRONMENTAL ASSESSMENT

NUMBER

DOI-BLM-CO-N040-2012-0103-EA

CASEFILE NUMBER

Federal Right-of-Way COC75655

PROJECT NAME

Proposal to Construct Natural Gas and Water Pipelines Across BLM Lands to Serve Nearby Private Well Pad (SG 44-23) Development Southwest of Parachute, Garfield County, Colorado.

PAD LOCATION

Township 7 South (T7S), Range 96 West (R96W), Section 26, W $\frac{1}{2}$ E $\frac{1}{2}$ NE $\frac{1}{4}$, Sixth Principal Meridian. Project site elevation is 5,120 feet above mean sea level (MSL).

APPLICANT

WPX Energy Rocky Mountain LLC. Contact: John Doose, Box 370, Parachute, CO 81635.

PROPOSED ACTION

WPX Energy Rocky Mountain LLC (“WPX”) proposes to construct an eight-inch diameter steel buried natural gas pipeline and a 6-inch diameter Flexpipe buried water line across 1,815 feet of public land (Figures 1 and 2). The 8-inch gas pipeline would gather the planned natural gas to be produced from the SG 44-23 pad to be built on private land north of the BLM parcel. The new gas line would be connected to the existing WPX gathering system at an existing valve near the junction of CR 300 and the SG 41-26 access road. The 6-inch water line would move the fluids generated from the SG 44-23 pad into the WPX water collection system to avoid future truck traffic associated with the producing fee wells. The two pipelines would be installed concurrently in the same trench. The proposed trench alignment would roughly parallel Garfield County Road (CR) 300, the Parachute-Una Road (Figure 2).

Additionally, WPX would install a 10-inch diameter poly surface water delivery line between the proposed SG 44-23 and the existing SG 32-26 pad across 875 feet of BLM land. The surface water line would be laid along a different alignment on BLM in order to provide a more direct connection between the two pads while taking advantage of a previously disturbed road corridor (Figure 2).

The two pipeline alignments would be installed in the vicinity of a 2009 reclaimed area that was used as the overburden stockpile for the construction of the SG 41-26 access road. Using a 35-foot wide disturbance corridor, the estimated surface disturbance associated with the pipeline trenching (1,815 feet)

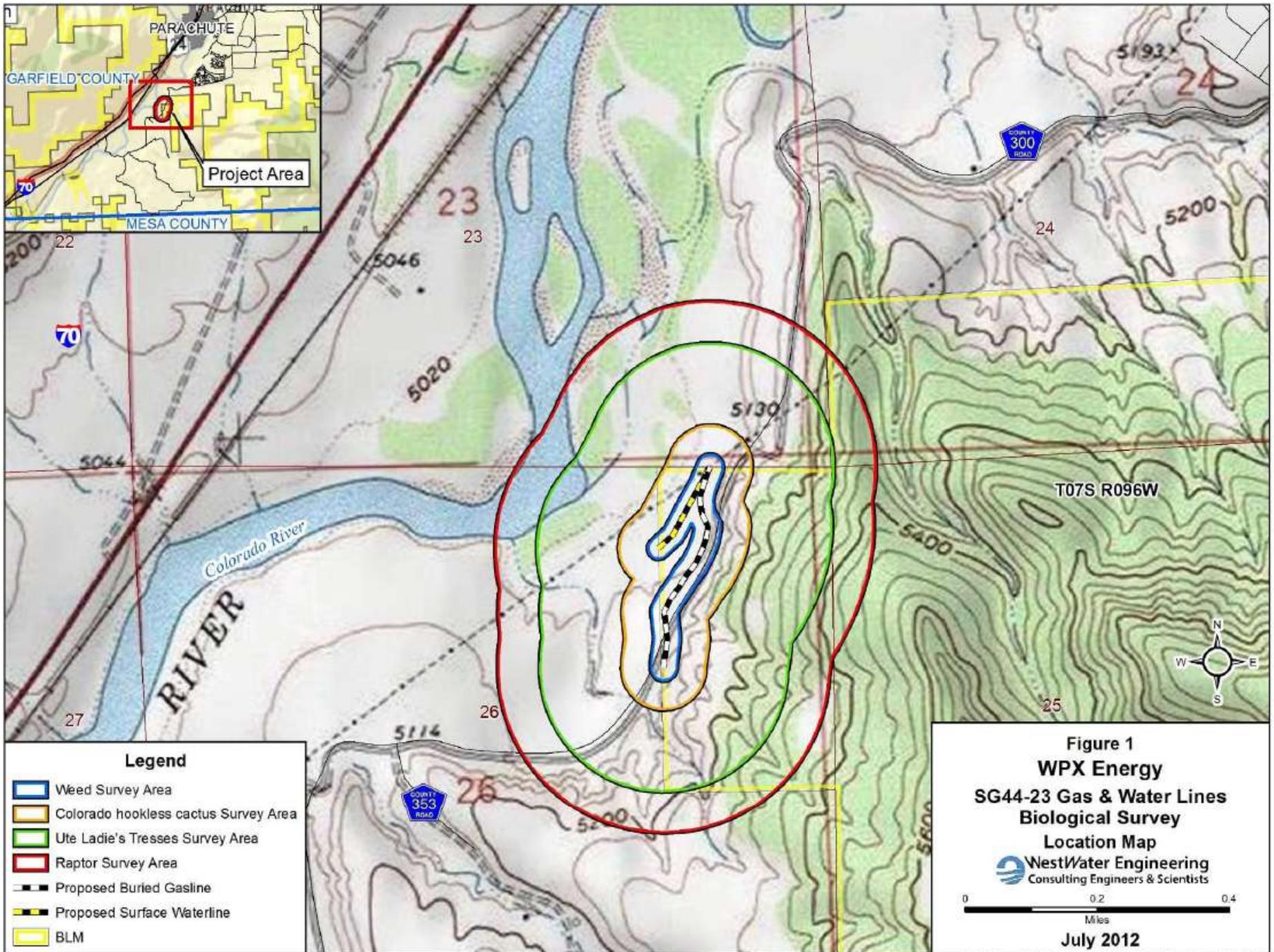


Exhibit "A"
Attached to and made part hereof that certain
SF299 dated this ___ day of August, 2012, by and between the
BLM and WPX Energy Rocky Mountain, LLC

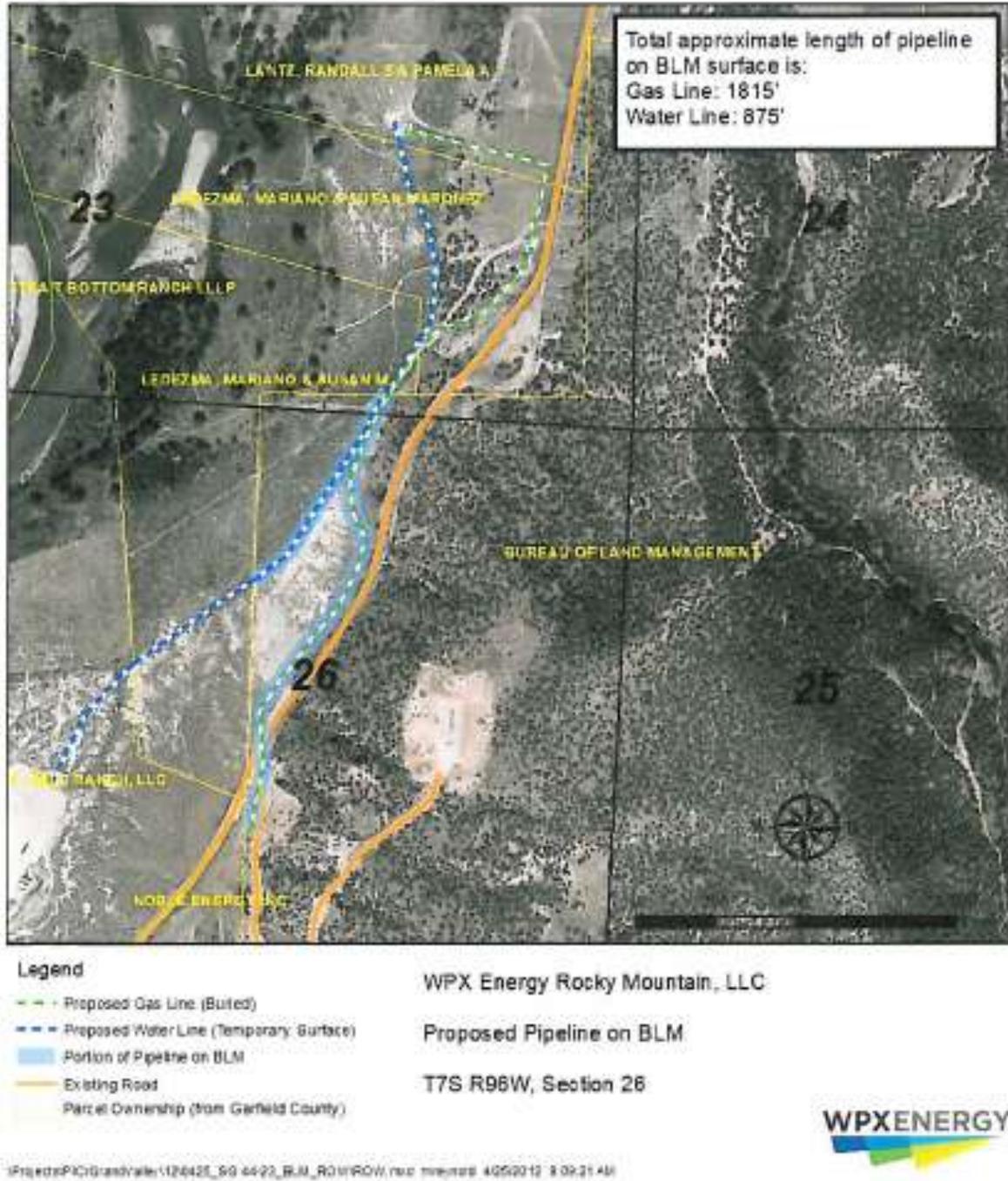


Figure 2. SG 44-23 Pipeline Alignments

would amount to 1.46 acres. The surface disturbance associated with the laying of the 10" poly water line would be negligible to walk across the alignment with a trackhoe and drag the line in place (0.30 acres). The project disturbance would total 1.76 acres on BLM land.

The pipeline construction work would follow the guidelines established in the BLM Gold Book, *Surface Operating Standards for Oil and Gas Exploration and Development* (USDI and USDA 2007).

The Proposed Action would be implemented with the issuance of a BLM right-of-way grant (COC75655) consistent with two separate Federal Right-of-Way mandates. Application for the 8-inch steel buried natural gas pipeline serving the proposed SG 44 -23 pad was made under the Mineral Leasing Act of 1920 (MLA), as amended. The MLA (Sec. 28 (a)) authorizes Federal agencies to grant ROWs for pipeline purposes for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product. The MLA (Sec. 28 (e)) further gives Federal agencies authority to allow temporary uses of Federal lands for construction, operation, and maintenance of pipelines. The 6-inch buried water line would be authorized with the BLM ROW grant pursuant to Title V of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976 (90 Stat. 2776; 43 U.S.C. 1761).

Additionally the 10-inch diameter surface poly line would be authorized with a Sundry Notice as the line would be laid temporarily on the surface for less than 12 months during the well drilling and completion work (specifically beginning in December 2012).

Appendix A lists the specific Surface Use Conditions of Approval (COAs) to be implemented as mitigation measures for this project. The operator would be responsible for continuous inspection and maintenance of the pipelines.

NO ACTION ALTERNATIVE

The No Action Alternative would deny the ROW applications for the use of Federally administered lands, and therefore construction of the pipelines would not occur on BLM land. However, WPX could install the pipelines entirely across private land, although the routes would be considerably longer and more expensive resulting in more surface disturbance and resource impacts than that associated with the Proposed Action identified in this EA.

PURPOSE AND NEED FOR THE ACTION

The purpose of the Proposed Action is to allow the installation of pipelines (buried and surface) serving a well pad on neighboring private land. The issuance of the pipeline ROW would be a discretionary action subject to terms of the current BLM land use plan. The action is needed to increase the development of oil and gas resources for commercial marketing to the public.

PLAN CONFORMANCE REVIEW

The Proposed Action and No Action Alternative are subject to and have been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: The current land use plan is the *Glenwood Springs Resource Management Plan* (RMP), approved in 1984 and revised in 1988 (BLM 1984). Relevant amendments include the *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) and the *Oil & Gas Leasing & Development Record of Decision and Resource Management Plan Amendment* (BLM 1999a).

Decision Language: The 1991 Oil and Gas Plan Amendment (BLM 1991) included the following at page 3: “697,720 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area are open to oil and gas leasing and development, subject to lease terms and (as applicable) lease stipulations” (BLM 1991, page 3). This decision was carried forward unchanged in the 1999 ROD and RMP amendment at page 15 (BLM 1999b): “In areas being actively developed, the operator must submit a Geographic Area Proposal (GAP) [currently referred to as a Master Development Plan, MDP] that describes a minimum of 2 to 3 years of activity for operator controlled leases within a reasonable geographic area.”

Discussion: The Proposed Action is in conformance with the 1991 and 1999 RMP amendments cited above because the Federal mineral estate proposed for development is open to oil and gas leasing and development

STANDARDS FOR PUBLIC LAND HEALTH

In January 1997, Colorado BLM approved the Standards for Public Land Health. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. The environmental analysis must address whether impacts resulting from the Proposed Action or alternatives being analyzed would maintain, improve, or deteriorate land health conditions relative to these resources. These analyses are conducted in relation to baseline conditions described in land health assessments (LHAs) completed by the BLM. The Proposed Action would occur in an area that was included in the Battlement Mesa LHA (BLM 2000).

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

During its internal scoping process for this Environmental Assessment (EA), pursuant to the National Environmental Policy Act (NEPA), BLM resource specialists identified the following elements of the natural and human environment as present in the project vicinity and potentially affected by the project:

| | |
|------------------------------------|-----------------------------------|
| Access and Transportation | Socioeconomics |
| Air Quality | Soils |
| Cultural Resources | Special Status Species |
| Invasive Non-Native Plants | Vegetation |
| Migratory Birds | Visual Resources |
| Native American Religious Concerns | Water Quality, Surface |
| Noise | Wildlife, Aquatic and Terrestrial |

Access and Transportation

Affected Environment

The project area is accessed from the BLM office in Silt, Colorado, by driving west on Interstate 70 (I-70) to the Parachute exit (#75) then southwest on Parachute-Una Road (County Road [CR] 300). Public access is available to the project site as it lies directly along CR 300.

Environmental Consequences

Proposed Action

The primary traffic impact associated with the pipeline project would be the mobilization of construction equipment and pipe deliveries. The increase in truck traffic would be minor as the project is directly accessed by a paved county road (CR 300). Twelve workers would be used to construct the pipelines over a period not to exceed thirty days. No more than seven pieces of excavation equipment would be forecast to complete the pipeline installation.

Degradation of field development roads may occur due to heavy equipment travel and fugitive dust and noise would be created. Mitigation measures (Appendix A) would be required as Conditions of Approval (COAs) to ensure adequate dust abatement and road maintenance occur.

No Action Alternative

Under this alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and air quality impacts than associated with the Proposed Action identified in this EA.

Air Quality

Affected Environment

State of Colorado and Federal air quality regulations are enforced by the Colorado Department of Public Health and Environment (CDPHE). Colorado Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) are health-based criteria for the maximum acceptable concentrations of air pollutants in areas of public use.

Although specific air quality monitoring has not been conducted within the project area, regional air quality monitoring has been conducted in Rifle and elsewhere in Garfield County. Air pollutants measured in the region for which ambient air quality standards exist include carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), particulate matter less than 10 microns (μ) in diameter (PM₁₀), and particulate matter less than 2.5 μ in diameter (PM_{2.5}).

The project area for the pipelines lies within Garfield County, which has been described as an attainment area under CAAQS and NAAQS. An attainment area is an area where ambient air pollution quantities are below (i.e., better than) NAAQS standards. Regional background values are within established standards, and all areas within the cumulative study area are designated as attainment for all criteria pollutants.

Federal air quality regulations adopted and enforced by CDPHE limit incremental emissions increases to specific levels defined by the classification of air quality in an area. The Prevention of Significant Deterioration (PSD) program is designed to limit incremental increases for specific air pollutant concentrations above a legally defined baseline level, as defined by an area's air quality classification. Incremental increases in PSD Class I areas are strictly limited, while increases allowed in Class II areas are less strict.

The project area and surrounding areas are classified as PSD Class II. The PSD Class I areas located within 100 miles of the project area are Flat Tops Wilderness (approximately 30 miles north), Maroon Bells-Snowmass Wilderness (approximately 29 miles south), West Elk Wilderness (approximately 50

miles southeast), Black Canyon of the Gunnison National Monument (approximately 50 miles south), and Eagles Nest Wilderness (approximately 65 miles east). Dinosaur National Monument (In the Colorado portion, approximately 185 miles northwest) is listed as a Federal Class II.

Environmental Consequences

Proposed Action

The CDPHE, under delegated authority from the US Environmental Protection Agency (EPA) and in conformance with Colorado's State Implementation Plan (SIP), is the agency with primary responsibility for air quality regulation and enforcement in conjunction with industrial developments and other air pollution sources in Colorado. Unlike the conceptual "reasonable but conservative" engineering designs used in NEPA analyses, any CDPHE air quality pre-construction permitting is based on site-specific, detailed engineering values, which are assessed in CDPHE's review of the permit application.

The Proposed Action includes constructing and installing 1,815 feet of buried gas pipeline and 875 feet of surface water line. Pipeline construction is expected to take less than 30 days and disturb a total of 1.76 acres of BLM land. Activities described in the Proposed Action would result in localized short-term increases in emissions during brush clearing of the ROW, topsoil windrowing, trenching, pipe delivery, pipeline welding and installation, backfilling, and reclamation. Pollutants generated during construction activities would include gas and diesel equipment combustion emissions and fugitive dust associated (PM10 and PM2.5) with construction equipment and vehicles. Once construction activities are complete, air quality impacts associated with these activities would cease.

The width of the ROW clearing will be kept to a practical minimum to avoid undue disturbance to existing vegetation. Where topsoil removal and storage is not necessary, brush clearing will be limited to removal of above ground vegetation to avoid disturbance of root systems, which will help reduce fugitive dust. In addition, BLM would require that WPX apply water or dust suppressant to access roads during the construction phases.

No Action Alternative

The No Action Alternative would deny the ROW applications for the use of Federally administered lands. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and air quality impacts than associated with the Proposed Action identified in this EA.

Cultural Resources

Affected Environment

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take in to account the effects their actions will have on cultural resources. As a general policy, an agency must consider effects to cultural resources for any undertaking that involves Federal monies, Federal permitting/authorization, or Federal lands.

Two Class III cultural resource inventories (CRVFO# 1106-7 and 1107-23) were previously conducted over the current project area and adequately covered both proposed natural gas and water pipeline routes for the SG 44-23 well pad. The cultural inventories and pre-field file search of the Colorado SHPO database and BLM Colorado River Valley Field Office cultural records identified no cultural resources eligible for the National Register of Historic Places (NRHP) within the project area. Eligible or

potentially eligible cultural sites are referred to in Section 106 of the National Historic Preservation Act as “historic properties.”

Environmental Consequences

Proposed Action

No historic properties are located in the vicinity of the project area or will be affected by the construction of the proposed natural gas and water pipelines for the nearby SG 44-23 well pad. Therefore, the BLM made a determination of “**No Historic Properties Affected.**” This determination was made in accordance with the 2001 revised regulations [36CFR 800.4(d)(1)] for Section 106 of the National Historic Preservation Act (16U.S.C 470f), the BLM/State Historic Preservation Officer (SHPO) Programmatic Agreement and Colorado Protocol]. As the BLM has determined that the Proposed Action would have no direct impacts to known “historic properties,” no formal consultation was initiated with the SHPO.

Although unlikely, indirect, long-term cumulative damage from increased access and the presence of project personnel could result in a range of impacts to undiscovered cultural resources in the vicinity of the project location. These impacts could range from accidental damage or vandalism to illegal collection and excavation.

A standard Education/Discovery COA for cultural resource protection will be attached to the EA. The importance of this COA would be stressed to the operator and its contractors, including informing them of their responsibilities to protect and report any cultural resources encountered during construction operations.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. This would lessen the potential to expose buried cultural resources on public lands as well as lessen the potential for indirect effects from illicit collection or vandalism as well as reduce the cumulative impacts on cultural resources. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and potential impacts to cultural resources than associated with the Proposed Action identified in this EA.

Invasive Non-Native Plants

Affected Environment

Much of the project area has been previously disturbed and partially reclaimed. This disturbance history has created conditions vulnerable to weed infestations. The overall project area is moderately infested with noxious weeds, including one State B List weed, jointed goatgrass (*Aegilops cylindrica*), and four State C List weeds: cheatgrass (*Anisantha tectorum*), field bindweed (*Convolvulus arvensis*), halogeton (*Halogeton glomeratus*), and redstem filaree (*Erodium cicutarium*). Cheatgrass, an annual species, is particularly dense in disturbed areas and widespread throughout the site. Field bindweed (perennial forb) and halogeton (annual forb) are widely scattered across the site, redstem filaree (annual forb) is scattered along disturbed areas in softer soils. Jointed goatgrass (annual) is present in isolated occurrences along the proposed access road to the SG 44-23 pad and near County Road 300 (WWE 2012). Other widespread non-native invasive species here include the non-native annual forbs Russian-thistle (*Salsola iberica*), kochia (*Bassia scoparia*), and clasping pepperweed (*Lepidium perfoliatum*), and two non-native grasses, bulbous bluegrass (*Poa bulbosa*), and annual wheatgrass (*Eremopyrum triticeum*

Environmental Consequences

Proposed Action

Under the Proposed Action, a total of 1.76 acres would be disturbed, of which 1.46 acres would be denuded of vegetation for the buried gas pipeline installation, and 0.3 acres would experience surface disturbance of vegetation for the surface water pipeline installation. Surface-disturbing activities provide a niche for the invasion and establishment of invasive, non-native species particularly when these species are already present in the surrounding area. Because noxious weeds and other invasive, non-native species are present in the project area, the potential for increased establishment of these undesirable plants following construction activities is high. Consequently, the standard weed control COA would be attached to APDs to require periodic monitoring and weed control practices to ensure that these weedy plants are controlled (Appendix A). Establishment of native plant species is also crucial in preventing invasive non-native plant species establishment and spread. Therefore, the standard reclamation COAs would also be attached to APDs to require seeding with an appropriate native seed mix and monitoring of reclamation seeding results (Appendix A).

No Action Alternative

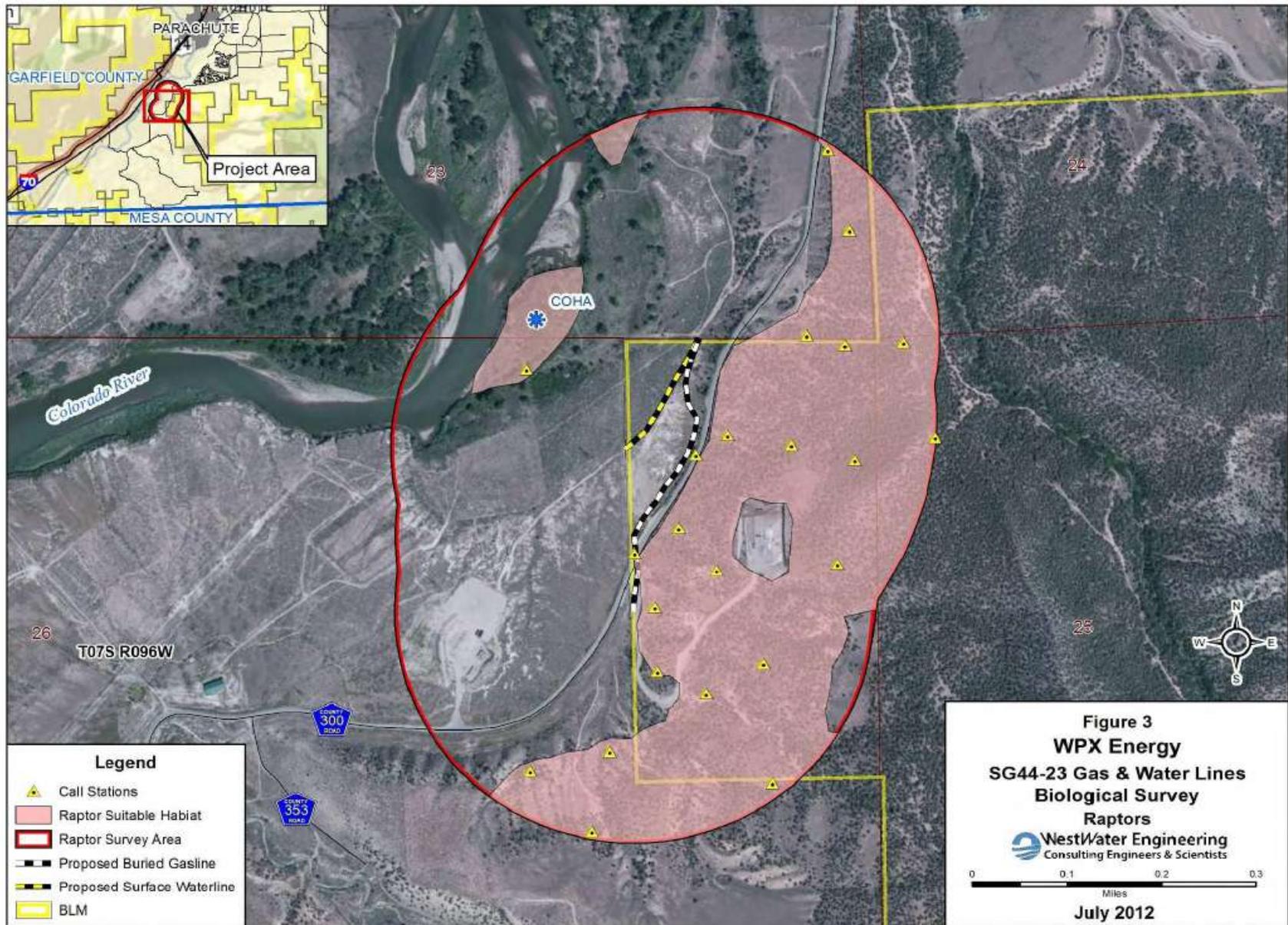
Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land, and the risk of invasive plants would remain the same as currently. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and an increased risk in invasive plant establishment on the nearby private land.

Migratory Birds

Affected Environment

The general project area consists primarily of pinyon-juniper woodlands and salt-desert shrub shrublands that provide habitat and/or potential habitat for numerous migratory birds, including species identified listed by the U.S. Fish and Wildlife Service (USFWS 2008) as Birds of Conservation Concern (BCC). Species on the BCC list that may be present include Lewis's woodpecker (*Melanerpes lewis*) in riparian cottonwoods along the Colorado River and the pinyon jay (*Gymnorhinus cyanocephalus*) and juniper titmouse (*Baeolophus griseus*) in nearby pinyon-juniper. Another BCC species, Cassin's finch (*Haemorhous cassinii*) may use cottonwood and pinyon-juniper habitats outside the nesting season. Non-BCC species associated with these habitat types include Neotropical migrants such as the broad-tailed hummingbird (*Selasphorus platycercus*), black-chinned hummingbird (*Archilochus alexandri*), western kingbird (*Tyrannus verticalis*), Say's phoebe (*Sayornis saya*), dusky flycatcher (*Empidonax oberholseri*), mountain bluebird (*Sialia sialis*), plumbeous vireo (*Vireo plumbeus*), yellow warbler (*Setophaga petechia*), black-throated gray warbler (*S. nigrescens*), chipping sparrow (*Spizella passerina*), lark sparrow (*Chondestes grammacus*), and lesser goldfinch (*Spinus psaltria*).

A raptor survey was completed in July 2012. One unoccupied raptor nest, believed to have been constructed by Cooper's hawks (*Accipiter cooperii*), was located adjacent to the Colorado approximately 0.15 mile from the planned pipeline corridor. No evidence of recent occupancy by hawks or secondarily by owls—e.g., feathers, whitewash, prey remains, owl pellets) was discovered on or near the nest during the survey (WWE 2012). Figure 3 shows this nest in relation to the project area and raptor survey boundaries. The symbols identifying “call stations” indicate locations where recorded owl were played to determine if owls are nesting in the area, as indicated by vocalizations being given in response.



Environmental Consequences

Proposed Action

The Proposed Action would result in a loss of nesting, roosting, perching, and foraging habitat for migratory birds on disturbed areas and reduce habitat effectiveness adjacent to areas where disturbance-related effects could be expected. The project would remove approximately 1.76 acres of pinyon-juniper woodlands and salt-desert shrub vegetation that would result in reduced habitat patch size. These changes to the habitat could negatively affect bird species that require large expanses of intact habitat. Habitat fragmentation could result in increased competition, increased exposure to predators, and a higher likelihood of nest parasitism. It is also possible that individual nests could be destroyed if the proposed pipelines are constructed during the nesting season.

In addition to the physical loss of habitat and habitat fragmentation, it is possible that during construction activities, individual birds could be displaced to adjacent habitats due to noise and human presence. Effects of displacement could include increased risk of predation or failure to reproduce if adjacent habitat is at carrying capacity. Furthermore, impacts to birds at the species or local population level could include a change in abundance and composition as a result of cumulative habitat fragmentation from energy development in the larger area. Impacts to migratory bird species that nest in pinyon-juniper and sagebrush habitats can be minimized by avoiding surface-disturbing activities during the nesting season. take place outside the nesting season.

All migratory bird species are protected by the Migratory Bird Treaty Act (MBTA), which makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. In addition to the MBTA, Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement the provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of actions and agency plans on migratory birds. Consistent with Executive Order 13186 and BLM Colorado guidelines, CRVFO has established a COA (Appendix A) prohibiting initiation of vegetation removal or ground-disturbing activities during the period May 1 to July 1, the peak period for incubation and brood rearing among migratory birds. An exception to this COA can be granted if surveys by a qualified biologist during the nesting season of BCC species potentially present indicate no active nests within 30 meters (100 feet) of the disturbance area.

In addition, because of the presence of an inactive raptor nest in proximity to the proposed pipeline route, a COA in Appendix A would also prohibit initiation of construction activities within 0.25 mile of the nest during the period May 1 to July 1. Appendix A summarizes bases for granting an exception to this COA.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and potential impacts to Migratory Birds than associated with the Proposed Action identified in this EA.

Native American Religious Concerns

Affected Environment

The Proposed Action is located within an area identified by the Ute Tribes as part of their ancestral homeland. Two Class III cultural resource inventories (see section on Cultural Resources) were

conducted in the Proposed Action's vicinity to determine if any areas were known to be culturally sensitive to Native Americans. No sensitive areas were identified or known in the proposed project area.

Environmental Consequences

Proposed Action

At present, no Native American concerns are known within the project area and none were identified during the inventories. The Ute Tribe of the Uintah and Ouray Bands, the primary Native American tribe in this area of the CRVFO, have indicated that they do not wish to be consulted for small projects or projects where no Native American areas of concern have been identified either through survey or past consultations. Therefore, formal consultation with Native American Tribes was not undertaken for the current project. If new data are disclosed, new terms and conditions may have to be negotiated to accommodate their concerns.

Although the Proposed Action would have no direct impacts, increased access and personnel in the vicinity of the proposed project could indirectly impact unknown Native American resources ranging from illegal collection to vandalism.

The National Historic Preservation Act (NHPA) requires that if newly discovered cultural resources are identified during project implementation, work in that area must stop and the agency Authorized Officer notified immediately (36 CFR 800.13). The Native American Graves Protection and Repatriation Act (NAGPRA), requires that if inadvertent discovery of Native American Remains or Objects occurs, activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice made to the agency Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)). Further actions also require compliance under the provisions of NHPA and the Archaeological Resource Protection Act. WPX Energy Rocky Mountain LLC will notify its staff and contractors of the requirement under the NHPA, that work must cease if cultural resources are found during project operations. A standard Education/Discovery COA for the protection of Native American values would be attached to the Federal Right-of-Way authorizations (Appendix A). The importance of these COAs would be stressed to the operator and its contractors, including informing them of their responsibilities to protect and report any cultural resources encountered. The proponent and contractors would be made aware of requirements under the NAGPRA.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. This would lessen the potential to expose buried cultural resources as well as lessen the potential for indirect effects from illicit collection or vandalism as well as reduce the cumulative impacts on cultural resources on public land. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and potential impacts to cultural resources than associated with the Proposed Action identified in this EA.

Noise

Affected Environment

The Proposed Action would lie within a rural setting approximately 2 miles southwest of Parachute and Battlement Mesa. Noise levels in the project area are presently created by traffic on Interstate 70, oil and gas development, and traffic on CR 300.

Noise is generally described as unwanted sound, weighted and noise intensity (or loudness) is measured as sound pressure in decibels (dBAs). The decibel scale is logarithmic, not linear, because the range of sound that can be detected by the human ear is so great that it is convenient to compress the scale to encompass all the sounds that need to be measured. Each 20-unit increase in the decibel scale increases the sound loudness by a factor of 10.

Sound levels have been calculated for areas that exhibit typical land uses and population densities. In rural recreational areas, ambient sound levels are expected to be approximately 30 to 40 dBA (EPA 1974, Harris 1991). As a basis for comparison, the noise level during normal conversation of two people five feet apart is 60 dBA.

Environmental Consequences

Proposed Action

The Proposed Action would result in less than 30 days of elevated construction and traffic noise. The greatest increase would be along access roads, operation of equipment at material staging areas, and the pipeline alignment during trenching, pipe placement, backfilling/recontouring, and seedbed preparation.

Oil and gas activities are subject to noise abatement procedures as defined in the COGCC Rules and Regulations (Aesthetic & Noise Control Regulations). Operations involving installation or maintenance of pipelines or gas facilities are subject to the maximum permissible noise levels for industrial zones, set at 70 dBA from 7:00 a.m. to 7:00 p.m. and 65 dBA from 7:00 p.m. to 7:00 a.m. The permissible noise levels are as measured at a distance of 350 feet from the source. Periodically, noise levels may increase by up to 10 dBA above levels for no more than 15 minutes in a 1-hour period.

Table 1 presents typical noise levels for construction equipment, based on the Inverse Square Law of Noise Propagation (Harris 1991), typical noise levels for construction equipment. The majority of these typical construction-related noise sources would exceed the COGCC maximum permissible sustained noise level of 80 dBA for an industrial zone at a distance of 50 feet. Based on the data summarized in Table 1, approximately 60 to 69 dBA at 500 feet and 54 to 63 dBA at 1,000 feet would be created by the project. These levels approximate active commercial areas (EPA 1974). Increased noise levels would be in addition to noise levels already above background due to current oil and gas developments in the area.

| Table 1. Noise Levels at Typical Construction Sites and along Access Roads | | | |
|---|--------------------------|-----------------|-------------------|
| <i>Equipment</i> | <i>Noise Level (dBA)</i> | | |
| | <i>50 feet</i> | <i>500 feet</i> | <i>1,000 feet</i> |
| Air Compressor, Concrete Pump | 82 | 62 | 56 |
| Backhoe | 85 | 65 | 59 |
| Bulldozer | 89 | 69 | 63 |
| Crane | 88 | 68 | 62 |
| Front End Loader | 83 | 63 | 57 |
| Heavy Truck | 88 | 68 | 62 |
| Motor Grader | 88 | 68 | 62 |
| Road Scraper | 87 | 67 | 61 |
| Tractor, Vibrator/Roller | 80 | 60 | 54 |
| Sources: BLM (1999a), La Plata County (2002) | | | |

Although the project would have a total duration of 30 days, the work would gradually shift along the length of the two pipeline corridors. Main access roads used for travel to/from the construction areas would receive the most protracted increases in noise levels. One residence is located within 0.5 mile of the proposed pipeline alignment. If noise were to exceed the COGCC requirements during the construction of the pipeline, additional sound mitigation may be necessary to reduce the noise impacts at 350 feet to the residential standard of 55 dBA during the 7 a.m. to 7 p.m.

Construction noise impacts would cease after the pipeline is in place and the reclamation is completed. Operations and maintenance traffic would be limited to smaller vehicles that would tend to monitoring and inspections of the operational pipeline.

No Action Alternative

The No Action Alternative would deny the ROW applications for the use of Federally administered lands. However, WPX could install the longer pipelines entirely across private land, resulting in more noise impacts than that associated with the Proposed Action identified in this EA.

Socioeconomics

Affected Environment

The project area is located entirely within Garfield County, Colorado, with a total county land area of 2,958 square miles (Garfield County 2011). The county seat is Glenwood Springs; other towns include Carbondale, New Castle, Silt, Rifle, Battlement Mesa, and Parachute. Interstate 70 transects the county east-west. A network of county and private roads services the project area.

The population of the county grew by an average of approximately 3% per year from 2000 to 2009 but decreased by 1.7% from 2009 to 2010 due to the national economic downturn, resulting in a net increase of 27% from 44,257 to 56,139 residents (USDOC 2012). Population growth in Garfield County is expected to nearly double to 101,646 in 2030 (CDOLA 2011). The county population in July 2009 was approximately 70% urban and 30% rural, with a population density of approximately 19 per square mile (City Data 2010). In July 2012, the total civilian labor of 33,786 had an unemployment rate of 7.9% (CDLE 2012). In the fourth quarter of 2011, the industry groups with the highest percentage of total employment were construction (12%), retail trade (11.5%), and Health Care and Social Assistance (11.3%). Table 2 lists the top 10 industries in the county for the fourth quarter of 2011 (CDLE 2012).

| Table 2. Selected Industry Sectors for Garfield County | | |
|---|--|------------------|
| Rank | Job Sector | Employees |
| 1 | Construction (buildings and engineered projects) | 2,901 |
| 2 | Retail Trade | 2,782 |
| 3 | Health Care and Social Assistance | 2,732 |
| 4 | Education Services | 2,484 |
| 5 | Accommodation and Food Services | 2,464 |
| 6 | Mineral Extraction (including mining and oil and gas) | 2,426 |
| 7 | Public Administration | 1,717 |
| 8 | Professional, Scientific & Technical Services | 1,047 |
| 9 | Administration, Support, Waste Management, and Remediation | 874 |
| 10 | Transportation and Warehousing | 782 |

Personal income in Garfield County has also risen, growing approximately 5% per year from \$1.3 billion in 2000 to \$2.1 billion in 2010. However, personal income dropped by nearly 12% from 2008 to 2010. Annual per capita income has grown in the same period approximately 3% per year, from \$29,081 to \$37,277, but annual per capita income dropped by nearly 13% from 2008 to 2010 (USDOC 2012).

The communities of Parachute, Rifle, Silt, and New Castle are considered to have the most affordable housing, while the communities of Glenwood Springs and Carbondale have the least affordable housing. In January 2011 the cost of living index in Garfield County was 88.8 (less than the U.S. average of 100) (City Data 2010).

Activities on public land in the vicinity of the project area are primarily ranching/farming, hunting, OHV travel, and the development of oil and gas resources. Hunters contribute to the economy because many require lodging, restaurants, sporting goods, guides and outfitting services, food, fuel, and other associated supplies.

Production of natural gas in Garfield County increased dramatically during recent years, from approximately 70 billion cubic feet (BCF) in 2000 to 313 BCF in 2012 (COGCC 2012). Close to 2,000 drilling permits were approved in Garfield County between July 2011 and July 2012 (COGCC 2012). However, U.S. natural gas prices have dropped in recent years from \$9.96 per thousand cubic feet (MCF) in May 2008 to \$1.94/MCF in May 2012 (USDOE 2012), reducing natural gas development activity in Garfield County.

Property tax revenue from oil and gas development is a source of public revenue in Garfield County. In 2011, oil and gas assessed valuation in Garfield County was approximately \$2.3 billion, or about 73% of total property tax assessed value. The county's ten largest taxpayers are in the oil and gas industry (Garfield County 2012).

The Federal government makes Payments in Lieu of Taxes (PILT) to local governments to help offset losses in property taxes due to nontaxable Federal lands within their boundaries (USDI NBC 2012). The PILT distributions are based on acres for all Federal land management agencies. Approximately 60% of all Garfield County lands are Federally owned (Garfield County 2011). The amount may also be adjusted based on population and as apportioned by Congress. By formula, payments are decreased as other Federal funds, such as mineral royalty payments, increase. PILT amounts to Garfield County in the last 5 years are shown in Table 3 (USDI NBC 2012).

| Table 3. Federal PILT, Garfield County | |
|---|----------------|
| <i>Year</i> | <i>Payment</i> |
| 2012 | \$403,176 |
| 2011 | \$391,032 |
| 2010 | \$391,649 |
| 2009 | \$1,808,984 |
| 2008 | \$1,732,974 |

In addition to PILT distributions, Federal mineral royalties are collected on oil and gas production from Federal mineral leases. Oil and gas lessees pay royalties equal to 12.5% of the well head value of oil and gas produced from public lands. Half of the royalty receipts are distributed to Colorado.

The NEPA process requires a review of the environmental justice issues as established by Executive Order 12898 (February 11, 1994). The order established that each Federal agency identify any

“disproportionately high and adverse human health or environment effects of its programs, policies, and activities on minority and low-income populations.” The Hispanic/Latino community is the only minority population of note in the project vicinity. In 2010, approximately 28% of the residents of Garfield County identified themselves as Hispanic/Latino, compared to 17% in 2000 (CDOLA 2012). Statewide, the percentage of Hispanic/Latino residents grew from 17% to 21% during the same 10-year period. African-American, American Indian, Asian, and Pacific Islander residents accounted for a combined 1.6% of the Garfield County population in 2010, compared to a statewide level of 7% (CDOLA 2012).

Environmental Consequences

Proposed Action

The Proposed Action would have minor positive impacts on the local economy of Garfield County through the creation of additional job opportunities in the oil and gas industry and in supporting trades and services. In addition, Garfield County would receive additional tax and royalty revenues.

The Proposed Action could result in negative social impacts including changing the character of the area, reducing scenic quality, increasing dust levels especially during construction, and increasing traffic.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install longer pipelines entirely across private land, resulting in insignificantly increased impacts to socio-economic conditions.

Soils

Affected Environment

According to the *Soil Survey of Rifle Area, Colorado* (USDA 1985), the proposed activities would be located entirely on the Torriorthents-Rock outcrop-Camborthids soil complex. This soil complex and consists of shallow to moderately deep Torriorthents and shallow to deep Camborthids with rock outcrops. This complex is formed in sandstone and shale and is on steep to very steep mountainside and fans. Primary uses for this soil is grazing and wildlife habitat.

Environmental Consequences

The Proposed Action would result in approximately 1.76 acres of short-term vegetation loss and soil disturbance. The area generally contains adequate vegetation buffers that would minimize the potential for sediment transport. However, construction activities would cause slight increases in local soil loss, loss of soil productivity, and sediment available for transport to surface waters. Potential for such soil loss and transport would increase as a function of slope, feature (pad, road, or pipeline route) to be constructed, and proximity to drainages.

The proposed pipelines would be located on soils with moderate risk of erosion and an existing ephemeral drainage would be disturbed and reclaimed as part of the pipeline installation. Particular care would be taken during construction and reclamation to ensure that proper BMPs, including the COAs listed in Appendix A, are used to prevent erosion and slope instability due to construction activities and sediment transport.

No Action Alternative

The No Action Alternative would deny the ROW applications for the use of Federally administered lands. However, WPX could install the longer pipelines entirely across private land, resulting in more surface disturbance and soil impacts than associated with the Proposed Action identified in this EA.

Special Status Species

Federally Listed, Proposed, or Candidate Species

Affected Environment

PLANTS

According to the latest species list from the USFWS, four Federally listed, proposed, or candidate plant species may occur within or be impacted by actions occurring in Garfield County. Table 4 lists these species and summarizes information on their habitat associations, potential for occurrence in the project vicinity based on known geographic range and habitats present, and potential for adverse impacts from the Proposed Action. Species indicated in Table 4 as having a portion of their known range or suitable habitat within the project vicinity or potentially affected by the Proposed Action are described in more detail following the table.

| Table 4. Potential for Occurrence of Threatened or Endangered Plant Species | | | | |
|--|--|---|--------------------------------------|------------------------------|
| <i>Species and Status</i> | <i>Occurrence</i> | <i>Habitat Association</i> | <i>Range or Habitat in Vicinity?</i> | <i>Potentially Affected?</i> |
| Parachute penstemon (<i>Penstemon debilis</i>) -- Threatened | Sparsely vegetated, south-facing, steep, white shale talus of the Parachute Creek Member of the Green River Formation; 8,000 to 9,000 feet | Other oil shale endemic species, such as Roan Cliffs blazing-star, Cathedral Bluffs meadow- rue, dragon milkvetch, Piceance bladderpod, and oil shale fescue | No | No |
| DeBeque phacelia (<i>Phacelia submutica</i>) – Threatened | Sparsely vegetated, steep slopes in chocolate-brown, gray, or red clay on Atwell Gulch and Shire Members, Wasatch Formation; 4,700 to 6,200 feet | Desert shrubland with four wing saltbush, shadscale, greasewood, broom snakeweed, bottlebrush squirreltail and Indian ricegrass, grading upward into scattered junipers | No | No |
| Colorado hookless cactus (<i>Sclerocactus glaucus</i>) – Threatened | Rocky hills, mesa slopes, and alluvial benches in salt desert shrub communities; often with well-formed microbiotic crusts; can occur in dense cheatgrass 4,500 to 6000 feet | Desert shrubland with shadscale, galleta grass, black sagebrush, Indian ricegrass grading upward into big sagebrush and sagebrush/pinyon-juniper | Yes | No |
| Ute ladies'-tresses orchid (<i>Spiranthes diluvialis</i>) – Threatened | Subirrigated alluvial soils along streams and in open meadows in floodplains; 4,500 to 7,200 feet | Box-elders, cottonwoods, willows, scouring rushes, and riparian grasses, sedges, and forbs | Yes | No |

Colorado Hookless Cactus (*Sclerocactus glaucus*). Federally listed as threatened. Colorado hookless cactus occurs on rocky hills, mesa slopes, and alluvial benches in salt desert shrub communities, at elevations ranging from 4,500 to 6,000 feet. Common co-occurring plant species include shadscale (*Atriplex confertifolia*), black sagebrush (*Artemisia nova*), galleta grass (*Pleuraphis jamesii*), and Indian ricegrass (*Achnatherum hymenoides*), grading upward into big sagebrush (*Artemisia tridentata* ssp. *tridentata*), Utah juniper (*Juniperus osteosperma*), and pinyon pine (*Pinus edulis*). It is often associated with well-formed microbiotic crusts, but can also occur in dense cheatgrass (*Anisantha tectorum*). Colorado hookless cactus is known within the CRVFO area along the Colorado tributaries, including BLM lands west of Parachute, Colorado. Potential habitat for this species in the project vicinity was surveyed on May 21-24, 2012, and no plants were found (WWE 2012).

Ute Lady’s Tresses Orchid (*Spiranthes diluvialis*). Federally listed as threatened. Ute lady’s tresses occurs in subirrigated alluvial soils along streams, and in open meadows in floodplains, at elevations of 4,500 to 6,800 feet. Common associated species include box-elder (*Acer negundo*), cottonwoods (*Populus* sp.), willows (*Salix* sp.), scouring rushes (*Equisetum* sp.), and riparian grasses, sedges, and forbs. Ute lady’s tresses is known to occur on USFS, BLM, and non-Federal lands along the Roaring Fork River south of Glenwood Springs, Colorado. Surveys conducted May 21-24, 2012 identified three areas of potential habitat along the Colorado River near the project site (WWE 2012). A survey of this potential habitat was conducted on September 7, 2012, and no Ute lady’s tresses plants were found.

VERTEBRATES

Eight species of Federally listed, proposed, or candidate threatened or endangered vertebrate species occur within Garfield County or may be affected by projects within the County. These species and their distribution, habitat associations, potential for occurrence, and potential to be affected by the project are summarized in Table 5. Species listed in the table as have a portion of their known range or suitable habitats within the project vicinity or potentially affected by the Proposed Action are described more fully following the table.

| Table 5. Potential for Occurrence of Threatened or Endangered Animal Species | | | | |
|---|--|---|--------------------------------------|------------------------------|
| <i>Species and Status</i> | <i>Distribution</i> | <i>Habitat Association</i> | <i>Range or Habitat in Vicinity?</i> | <i>Potentially Affected?</i> |
| Canada lynx (<i>Lynx canadensis</i>) – Threatened | Expanses of subalpine and upper montane coniferous forests | Spruce-fir forests; also lodgepole pine and aspen | No | No |
| Yellow-billed cuckoo (<i>Coccyzus americanus</i>) – Candidate | Colorado, Dolores, Yampa, Rio Grande, and North Fork of Gunnison rivers | Large cottonwood stands along rivers | Yes | Unlikely |
| Mexican spotted owl (<i>Strix occidentalis lucida</i>) – Threatened | No historic occurrence in area; present in southwestern Colorado and southern Front Range | Rocky cliffs within closed-canopy coniferous forests | No | No |
| Razorback sucker (<i>Xyrauchen texanus</i>) – Endangered | Occur in mainstem of the Colorado River and major tributary rivers – upstream to Rifle, Colorado, in CRVFO | General: Deep, slow runs, pools, and eddies Spawning: silt to gravel substrates in shallow water and seasonally flooded overbank areas | Yes | Yes |
| Colorado pikeminnow (<i>Ptychocheilus lucius</i>) – Endangered | | | Yes | Yes |

| Table 5. Potential for Occurrence of Threatened or Endangered Animal Species | | | | |
|---|--|---|--------------------------------------|------------------------------|
| <i>Species and Status</i> | <i>Distribution</i> | <i>Habitat Association</i> | <i>Range or Habitat in Vicinity?</i> | <i>Potentially Affected?</i> |
| Humpback chub (<i>Gila cypha</i>) -- Endangered | Occur in mainstem of the Colorado River and major tributaries – upstream to Black Rocks near Utah line | Rocky runs, riffles, and rapids | No | No |
| Bonytail chub (<i>Gila elegans</i>) – Endangered | | Shallow reaches of swift, deep rivers | No | No |
| Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>) – Endangered | Native in South Platte drainage, recently documented in the CRVFO | Clear, cold mountain streams and headwaters lakes | No | No |

Western Yellow-billed Cuckoo (Western Distinct Population Segment). Candidate for Federal listing. This secretive species occurs in mature riparian forests of cottonwoods and other large deciduous trees with a well-developed understory of tall riparian shrubs. Riparian cottonwood stands along the Colorado River are marginally suitable for this species due to a relatively discontinuous tree canopy and a poorly developed tall-shrub understory. Use by this species, if it were to occur, would be expected to be infrequent and transitory such as during migrations or in incidental movement of vagrants in search of nesting or feeding habitats.

Razorback Sucker and Colorado Pikeminnow. Federally listed as endangered. These species of Federally listed big-river fishes occur within the Colorado River drainage basin near or downstream from the project area. Designated Critical Habitat for the razorback sucker and Colorado pikeminnow includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle. The nearest known habitat for the humpback chub and bonytail is within the Colorado River well downstream of the CRVFO boundary.

Greenback Cutthroat Trout. Federally listed as threatened. The greenback cutthroat trout was not identified on the USFWS list for Garfield County; however, recent surveys have identified a population in Cache Creek, located several drainages east of the project area. The greenback is the subspecies of cutthroat trout native to the Platte River drainage on the Eastern Slope of Colorado, while the Colorado River cutthroat trout (*O. c. pleuriticus*) is the subspecies native on Colorado’s western slope, including Garfield County. Although the occurrence of greenbacks in Cache Creek and potentially elsewhere in the CRVFO is apparently the result of human intervention (e.g., sanctioned or *ad hoc* transplantation of fish from the Eastern Slope), its status as threatened applies to Western Slope populations.

Environmental Consequences

Proposed Action

PLANTS

No potential habitat for either DeBeque phacelia or Parachute penstemon occurs within or near the project area. Therefore, the Proposed Action would have “**No Effect**” on these species. Potential habitat for Colorado hookless cactus is present within and adjacent to the project area. However, surveys for this species conducted in May 2012 did not find any occurrences of this species. Therefore, the Proposed Action would have “**No Effect**” on Colorado hookless cactus.

Potential habitat for Ute lady's tresses orchid is present within 200 to 300 meters of the proposed pipelines. A survey conducted in the northernmost area of potential habitat on September 7, 2012, found no plants present. This section of habitat is the only portion located within 300 meters of the buried gas pipeline site. This habitat is of marginal quality, consisting of areas with deep silt, areas of large river cobble, and areas of embankment well above late summer water level. The other areas of potential habitat are approximately 250 to 300 meters from the surface water pipeline, but because of the minimal surface disturbance from this pipeline, effects are not expected to result beyond 30 meters from the surface pipeline. Due to the marginal quality of the habitat, the lack of plants during the 2012 survey, and the distance of the other areas of potential habitat from the pipelines, the Proposed Action would have "**No Effect**" on Ute lady's tresses.

VERTEBRATES

The Canada lynx and Mexican spotted owl are not expected to occur in the project vicinity based on habitat types present and documented occurrences. Therefore, the Proposed Action would have "**No Effect**" on these species. Although the western distinct population of the yellow-billed cuckoo is potentially present due to the presence of riparian cottonwoods along the Colorado River in proximity to the proposed pipeline alignment, the short duration of proposed construction, the separation from suitable habitat by a minimum of 0.15 mile of unsuitable habitat, and the low likelihood of occurrence also support a determination of "**No Effect**" for this species.

The endangered Colorado River fishes could potentially be affected by the consumptive use of water taken from the Colorado River basin to support activities associated with the Proposed Action. Depletions in flows in the Colorado River and major tributaries are a major source of impacts to these fishes due to changes in the flow regime that reduce the availability and suitability of spawning sites and habitats needed for survival and growth of the larvae. Principal sources of depletion in the Colorado River basin include withdrawals for agricultural or industrial uses, withdrawals for municipal water supplies, and evaporative losses from reservoirs. On average, approximately 0.7 acre-feet of Colorado River water is consumed during activities related to each oil and gas well.

In 2008, the BLM prepared a Programmatic Biological Assessment (PBA) addressing water-depleting activities associated with BLM's fluid minerals program in the Colorado River Basin in Colorado. In response to this PBA, the USFWS issued a Programmatic Biological Opinion (PBO) (ES/GJ-6-CO-08-F-0006) on December 19, 2008. The PBO concurred with BLM's effects determination of "**May Affect, Likely to Adversely Affect**" the Colorado pikeminnow, humpback chub, bonytail chub, or razorback sucker as a result of depletions associated with oil and gas projects. To offset the impacts, the BLM has set up a Recovery Agreement, which includes a one-time fee per well. The estimated depletions from the Proposed Action will be added to the CRVFO tracking log and submitted to the USFWS per the PBA/PBO at the end of the year to account for depletions associated with BLM's fluid mineral program. The calculated mitigation fees are used by the USFWS for mitigation projects and contribute to the recovery of these endangered species through restoration of habitat, propagation, and genetics management, instream flow identification and protection, program management, non-native fish management, research and monitoring, and public education.

Other potential impacts to these species include inflow of sediments from areas of surface disturbance and inflow of chemical pollutants related to oil and gas activities on the well pads, associated with ancillary surface facilities, or resulting from an accident involving a haul truck in proximity to a stream. Stormwater controls required for the protection of surface water quality would also provide protection of aquatic organisms (see COAs in Appendix A). Even if sediment inflow were to occur, including incidental aerial deposition of fugitive dust from roadways and construction areas, these fishes are adapted to the naturally high sediment loads that characterize the Colorado River and its tributaries.

Inflow of chemical pollutants could impact the endangered big-river fishes if concentrations were sufficient to cause acute effects. The potential for adverse impacts would be limited to the Colorado pikeminnow and razorback sucker, the two species known to occur within the CRVFO area. Spills or other releases of chemical pollutants as a result of oil and gas activities are infrequent in the CRVFO area due to the various design requirements imposed by BLM and the State of Colorado. In the event of a spill or accidental release, the operator is required to implement its Spill Prevention, Control, and Countermeasures (SPCC) plan, including such cleanup and mitigation measures as required by BLM or the State. In addition, stormwater controls (Appendix A) would reduce the risk of transport of sediments and chemical substances to the Colorado River. For these reasons, and because any spills making their way into the Colorado River would be rapidly diluted to levels below that are not deleterious, or even detectable, the potential for adverse impacts from chemical releases is not considered significant, and in this regard the Proposed Action would have “**No Effect**” on the endangered big-river fishes.

No Action Alternative

The No Action Alternative would deny the ROW applications for the use of Federally administered lands. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance. Additional impacts to any Federally listed, proposed, or candidate plant or animal species would not be expected, however, since a vast portion of the nearby private land was included in the biological surveys (Figure 1).

BLM Sensitive Plant and Animal Species

Affected Environment

BLM sensitive plant and animal species with habitat and/or occurrence records in Garfield County are listed in Tables 6 and 7, respectively.

| Table 6. Potential for Occurrence of BLM Sensitive Plant Species | | | | |
|---|---|--|--------------------------------------|------------------------------|
| <i>Species and Status</i> | <i>Occurrence</i> | <i>Habitat Association</i> | <i>Range or Habitat in Vicinity?</i> | <i>Potentially Affected?</i> |
| DeBeque milkvetch <i>(Astragalus debequaeus)</i> | Varicolored, fine-textured, seleniferous or saline soils of Wasatch Formation- Atwell Gulch Member; 5,100 to 6,400 feet | Pinyon-juniper woodlands and desert shrub. | Yes | No |
| Naturita milkvetch <i>(Astragalus naturitensis)</i> | Sandstone mesas, ledges, crevices and slopes in pinyon/juniper woodlands; 5,000 to 7,000 feet | Pinyon-juniper woodlands | No | No |
| Piceance bladderpod <i>(Lesquerella parviflora)</i> | Shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas; 6,200 to 8,600 feet | Pinyon-juniper woodlands, shrublands; often with other oil shale endemic species | No | No |
| Roan cliffs blazing-star <i>(Mentzelia rhizomata)</i> | Steep, eroding talus slopes of shale, Green River Formation; 5,800-9,000 feet | Pinyon-juniper woodlands, shrublands; often with other oil shale endemic species | No | No |

| <i>Species and Status</i> | <i>Occurrence</i> | <i>Habitat Association</i> | <i>Range or Habitat in Vicinity?</i> | <i>Potentially Affected?</i> |
|---|--|---|--------------------------------------|------------------------------|
| Harrington's beardtongue (<i>Penstemon harringtonii</i>) | Flats to hillsides with rocky loam and rocky clay loam soils derived from coarse calcareous parent materials or basalt; 6,200-9,200 feet | Sagebrush shrublands, typically with scattered pinyon-juniper | No | No |
| Cathedral Bluffs meadow-rue (<i>Thalictrum heliophilum</i>) | Endemic on sparsely vegetated, steep shale talus slopes of the Green River Formation; 6,300-8,800 feet | Pinyon-juniper woodlands and shrublands; often with other oil shale endemics, sometimes with rabbitbrush or snowberry | No | No |

| <i>Common Name</i> | <i>Habitat</i> | <i>Potential for Occurrence</i> |
|---|---|---|
| Fringed myotis (<i>Myotis thysanodes</i>) and Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) | Breed and roost in caves, trees, mines, and buildings; hunt over pinyon-juniper, montane conifers, and semi-desert shrubs. | Unlikely; habitat marginal |
| Northern goshawk (<i>Accipiter gentilis</i>) | Predominantly uses spruce/fir forests but also use Douglas-fir, various pines, and aspens. | No suitable habitat |
| Bald eagle (<i>Haliaeetus leucocephalus</i>) | Nests and roosts in mature cottonwood forests along rivers, large streams, and lakes. | Possible; nests and roosts along Colorado River |
| Peregrine falcon (<i>Falcon peregrinus</i>) | Nests on cliffs, usually near a river, large lake, or ocean. Hunts for waterfowl on water or upland fowl across grasslands and steppe. | Possible (foraging) |
| Brewer's sparrow (<i>Spizella breweri</i>) | Nests in large stands of sagebrush, primarily Wyoming sagebrush on level or undulating terrain. | No suitable habitat |
| Midget faded rattlesnake (<i>Crotalus viridis concolor</i>) | Cold desert dominated by sagebrush and with an abundance of rock outcrops and exposed canyon walls, typically farther west than the project area. | Outside geographic range |
| Great Basin spadefoot (<i>Spea intermontana</i>) | Habitat includes pinyon-juniper woodlands and semi-desert shrublands, typically farther west than the project area. | Unlikely; habitat marginal |
| Northern leopard frog (<i>Lithobates pipiens</i>) | Wet meadows and the shallows of marshes, ponds, lakes, streams, and irrigation ditches. | Possible |
| Flannelmouth sucker (<i>Catostomus latipinnis</i>) and roundtail chub (<i>Gila robusta</i>) | Restricted to rivers and major tributaries. | Present in Colorado River |
| Bluehead sucker (<i>Catostomus discobolus</i>) | Found in smaller streams with a rock substrate and mid to fast flowing waters. | No suitable habitat |
| Colorado River cutthroat trout (<i>Oncorhynchus clarki pleuriticus</i>) | Headwaters streams and ponds with cool, clear waters and no non-native cutthroat subspecies | No suitable habitat |

Environmental Consequences

Proposed Action

Plants – The results of plant surveys conducted in March and May 2012 indicate no BLM sensitive plant species or suitable habitat for these species in the project area (WWE 2012). Therefore, the project is not expected to have adverse impacts on any of these species.

Fringed Myotis and Townsend's Big-eared Bat – No caves or other suitable roosting sites occur in the project area. Loss of large trees, potentially also used for roosting, would be negligible. No new loss of habitat above which the bats could search for aerial prey would occur, and the area they might avoid during nighttime drilling and completion activities would represent a small portion of their total feeding range, if present.

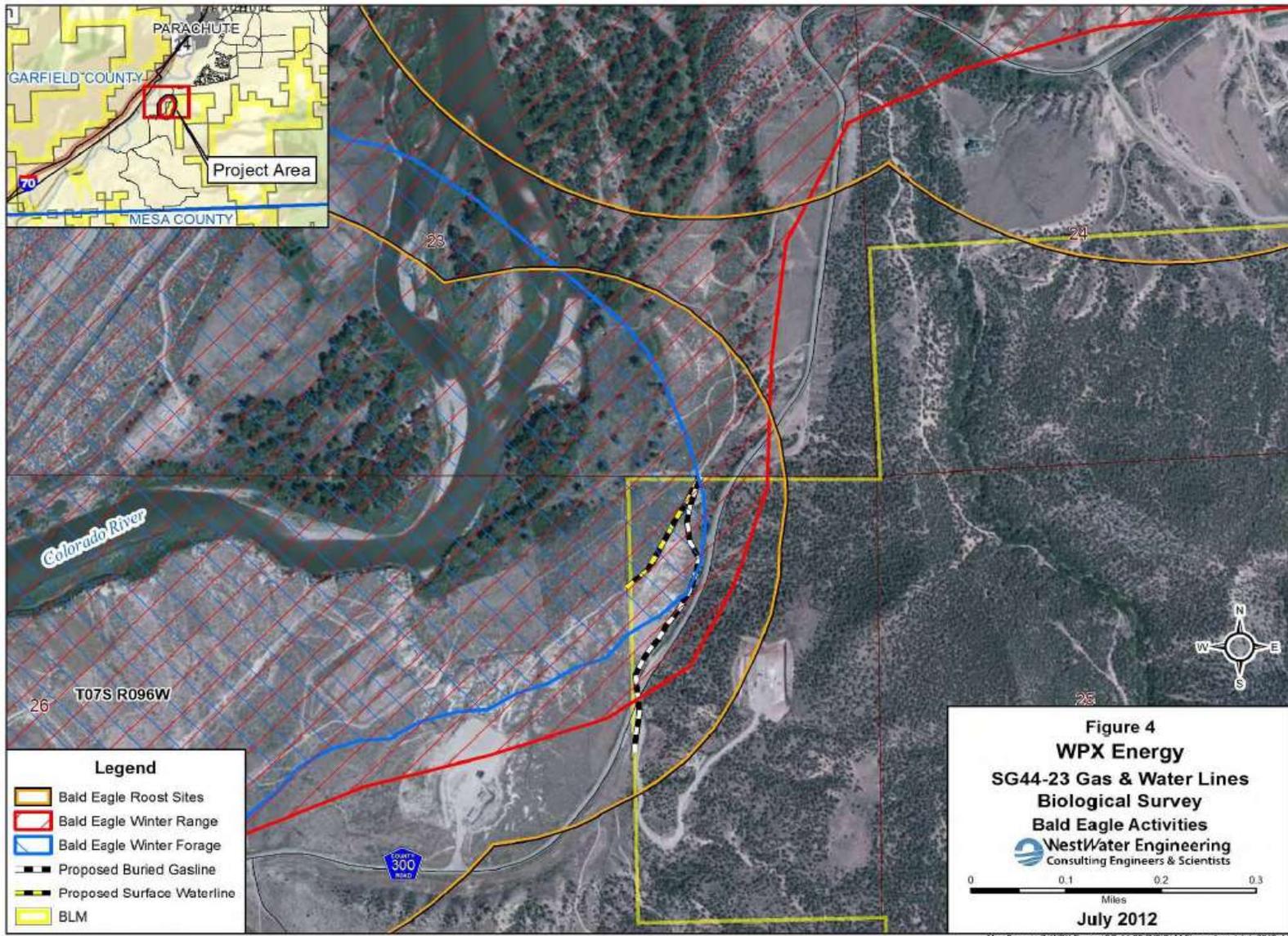
Bald Eagle – Formerly listed as endangered, then downlisted to threatened, and eventually removed from the list of threatened or endangered species, the bald eagle remains protected by the Bald and Golden Eagle Protection Act (BGEPA) as well as the MBTA. Bald eagles nest and roost along the Colorado and use the riparian and adjacent open habitats while foraging. Bald eagles hunt primarily for fish and waterfowl but secondarily for rabbits, ground squirrels, or other upland prey, especially in winter. The area of the Colorado adjacent to the proposed pipeline alignment is mapped as being within the edge of an area of winter roosting and feeding habitats for the bald eagle (Figure 4).

Peregrine Falcon – Also formerly listed as endangered, then downlisted to threatened, and eventually removed from the list of threatened or endangered species, the peregrine falcon nests along the Roan Cliffs in the general project vicinity and hunts primarily for waterfowl along the Colorado River or upland fowl and other birds on nearby sagebrush-covered plateaus. Although no peregrine nests are known in the project area, peregrines nesting in other areas may visit the project vicinity infrequently in search of prey. Because peregrines hunt across large areas, any use of the project area would be minor.

Northern Leopard Frog – The northern leopard frog is limited to perennial waters, including ponds and slow-flowing perennial streams or persistent portions of intermittent streams. It requires good water quality and abundant aquatic or shoreline vegetation. The habitat along the Colorado River floodplain includes wetlands and small areas of surface water sustained by shallow groundwater moving through the alluvium or flowing toward the river from nearby uplands. However, the construction corridor for the pipeline would not traverse any wetlands or areas of surface water suitable for this species. In addition, no leopard frogs were observed during surveys in the project area in May 2012. Consequently, no adverse impacts on the northern leopard frog are anticipated.

Great Basin Spadefoot – This relative of toads generally breeds in margins of seasonal lakes or ponds or slow-flowing reaches of seasonal streams from western Colorado westward into the Great Basin. When not tied to the water for the brief courtship season, adult spadefoots may hunt for invertebrates among low-growing semi-desert or salt-desert shrubs and sparse grasslands in surrounding areas. Potential impacts to spadefoots when present include direct mortality from vehicles or livestock and chemical pollution of breeding ponds. The project area near the eastern limits of this species, and no suitable seasonal surface waters would be crossed by the pipeline. Therefore, no adverse impacts are expected.

Flannelmouth Sucker and Roundtail Chub – Similar to the endangered Colorado River fishes described previously, these species are vulnerable to alterations in flow regimes in the Colorado River that affect the availability and suitability of spawning sites and habitats needed for development of the larvae. The amount of consumptive water use associated with the Proposed Action would not be expected to cause



discernible impacts to flows in the Colorado River. Also similar to the endangered big-river fishes, these BLM sensitive species are adapted to naturally high sediment loads and therefore would not be affected by increased sediment transport to the Colorado River. The COAs for the protection of water quality (Appendix A) would minimize the potential for impacts from inflow of sediments or toxicants. Prompt implementation of the SPCC plan following any spill or other release of hydrocarbons, saline waters, or other contaminants would further reduce the risk of significant adverse impacts to these species and other aquatic life in affected waters.

Based on information presented above, one BLM sensitive animal species, the midget faded rattlesnake, has more than a negligible risk of adverse impact. Direct mortality of this species could result from pad excavation or vehicle traffic on roads. However, any such loss would be expected to affect a small number of individuals and not significantly affect the viability of the local or species population.

No Action Alternative

The No Action Alternative would deny the ROW applications for the use of Federally administered lands. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance. Additional impacts to any BLM sensitive plant and animal species would not be expected, however, since a vast portion of the nearby private land was included in the biological surveys (Figure 1).

Vegetation

Affected Environment

The vegetation in and adjacent to the project area consists of salt-desert scrub vegetation on gently sloping terrain near the Colorado River at approximately 5,120 feet in elevation. Common native plant species include the following: Shrubs – greasewood (*Sarcobatus vermiculatus*), fourwing saltbush (*Atriplex canescens*), shadscale (*Atriplex confertifolia*), and broom snakeweed (*Gutierrezia sarothrae*); Forbs – gumweed (*Grindelia fastigiata*), blue flax (*Linum lewisii*), cushion phlox (*Phlox hoodii*), longleaf phlox (*Phlox longifolia*), and peppergrass (*Lepidium montanum*); Succulents: prickly pear cactus (*Opuntia* sp.); and Grasses – Indian ricegrass (*Achnatherum hymenoides*), bottlebrush squirreltail (*Elymus elymoides*), slender wheatgrass (*Elymus trachycaulus*), Sandberg's bluegrass (*Poa secunda*), and galleta (*Pleuraphis jamesii*). A portion of the project area was previously disturbed and reclaimed. Recreational activity has impacted other portions of the site. Because of past disturbances, noxious weeds and non-native invasive plant species are also widespread and abundant.

Environmental Consequences

Proposed Action

Under the Proposed Action, approximately 1.76 acres of salt-desert scrub vegetation would be removed for pipeline installation on BLM lands. This disturbance would increase the site's vulnerability to invasion and establishment of noxious weeds and other nonnative invasive plant species. Implementation of the COAs for revegetation would result in seeding with native grass species, which would assist in the reestablishment of the native plant community. Implementation of the weed management COAs would greatly reduce the risk of weed establishment within and adjacent to the disturbed area.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install

longer pipelines entirely across private land, resulting in more surface disturbance and vegetation impacts than associated with the Proposed Action identified in this EA.

Visual Resources

Affected Environment

The Proposed Action would take place on public lands administered by the BLM and private lands located along the Colorado River Valley bottom. The lands administered by the BLM are classified as Visual Resource Management (VRM) Class II and III, as identified in the 1984 Glenwood Springs Resource Management Plan (RMP). The objectives for VRM Classes II and III, as defined in the BLM's Manual H-8410-1 – Visual Resource Inventory (BLM 1986), are described below.

- **The objective of VRM Class II** is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- **The objective of VRM Class III** is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The project area is located along a bowl-like structure created by the flood plain of the southern edge of the Colorado River valley bottom and the northwestern toe of High Mesa. The area is characteristic of rural agricultural land and oil and gas development. Vegetation within the immediate project area consists of sagebrush flats with riparian vegetation lining the northern extent and patches of juniper along the southern extent. Rocky tan exposed soils are found throughout the project area.

The proposed 8-inch buried natural gas pipeline and 6-inch diameter buried water line would cross 1,815 feet of public land, and the proposed 10-inch temporary surface water pipeline would cross 875 feet of public land (Figure 5). The two buried pipeline alignments would be installed in the vicinity of a 2009 reclaimed area that was used as the overburden stockpile for the construction of the nearby SG 41-26 well pad access road.

The visual resource analysis area includes the Interstate 70 travel corridor and County Road 300. These viewsheds are important, as they are viewed by people who live, work, commute and recreate in the area. The Proposed Action would be located in the viewer's foreground/middle ground, within 5 miles from Interstate 70 and County Road 300. BLM guidance states that lands with high visual sensitivity are those within five miles of a primary travel corridor and of moderate to very high visual exposure, where details of vegetation and landform are readily discernible and changes in visual contrast can be easily noticed by the casual observer.

The visual impact analysis for this project is based on the views from two Key Observation Points (KOPs) representing one linear viewer location (CR 300) representing the viewing angle and direction with the highest frequency of viewers. No KOPs were selected for the Interstate 70 travel corridor because of the nature of the adjacent topography and vegetation that provides screening into the project area.

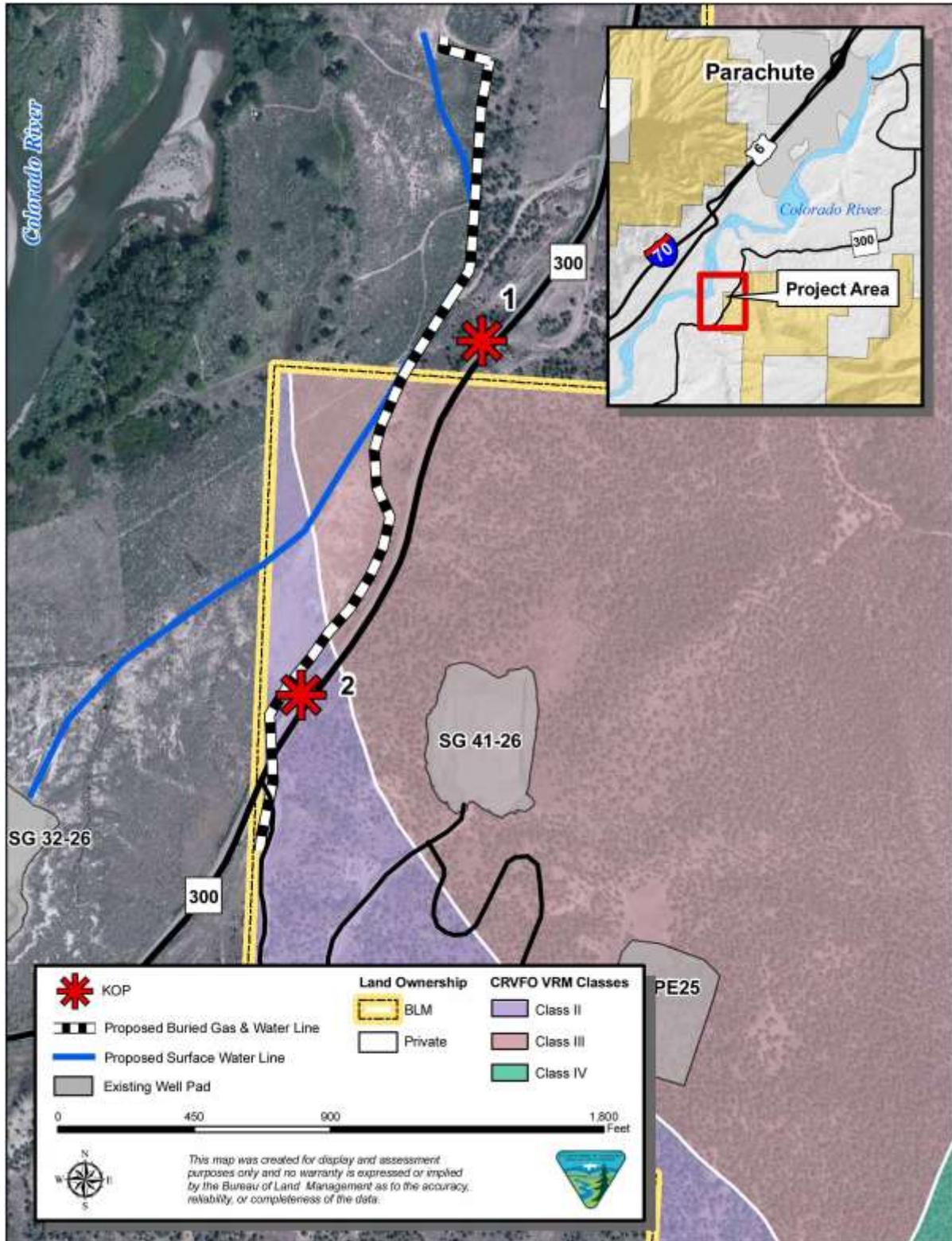
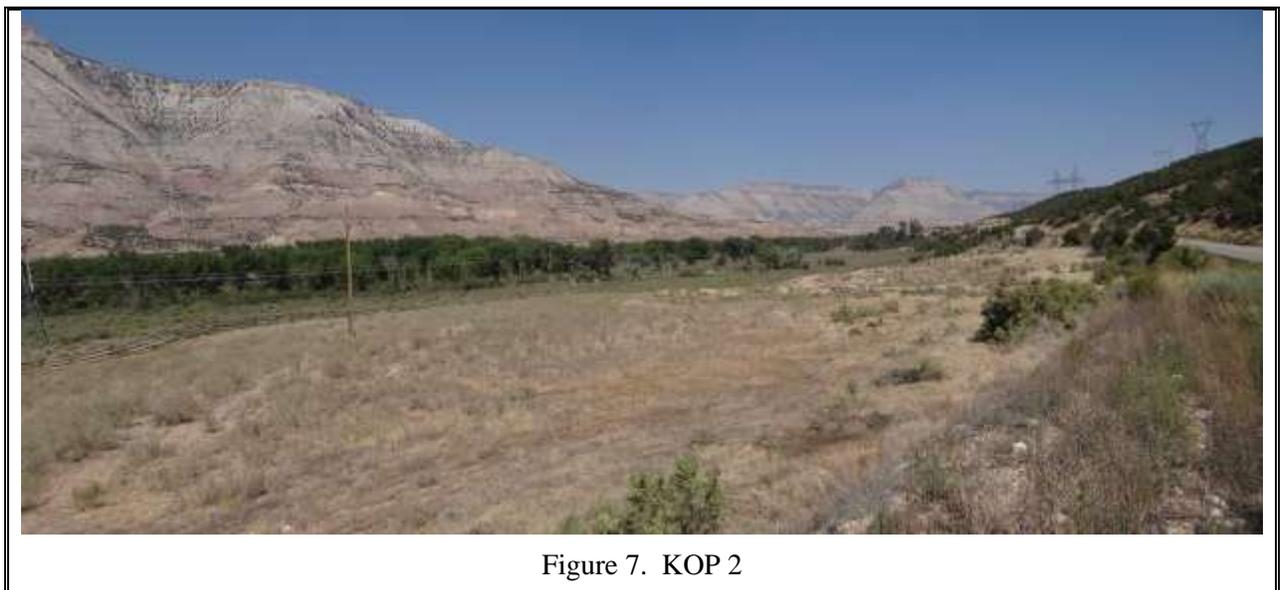


Figure 5. Proposed Action Relationship to CRVFO Visual Resource Management (VRM) Designations.



KOP 1 (Figure 6) is located along CR 300 between the base of High Mesa and the Colorado River. This location represents the viewing angle and direction with the highest frequency of viewers. KOP 1 represents a typical view a viewer would have while traveling west along CR 300. The viewer would be looking directly at the very western extent of the Proposed Action. The remainder of the Proposed Action would be obscured by juniper, giving the viewer only glimpses into the project area through the trees.



KOP 2 (Figure 7) is located along CR 300 between the base of High Mesa and the Colorado River. This location represents the viewing angle and direction with the highest frequency of viewers and where the Proposed Action would be the most visible to viewers. KOP 2 represents a typical view a viewer would have while traveling east along CR 300. The viewer would be looking directly at the Proposed Action from this location. From this point, the gains elevation as it continues east. Views into the project area become obscured by junipers. The dense band of cottonwoods along the Colorado River would screen views while traveling along Interstate 70. Note the bowl-like setting of the project area.

Environmental Consequences

Proposed Action

The planning process involved a site visit to review the location of the Proposed Action. The proposed buried gas line and buried waterline would roughly parallel County Road 300 and would be installed concurrently using a 35-foot-wide disturbance corridor. The proposed temporary surface line would utilize a previously disturbed road corridor. Total surface disturbance for the Proposed Action would total 1.76 acres on BLM land.

Short-term visual impacts due to pipeline installation would occur within the project area. The existing landscape would be changed by the introduction of contrasting elements within the landscape in the form of new lines, colors, forms, and textures. The new pipelines would increase the presence of heavy equipment (e.g., dozers, graders, etc.), and vehicular traffic with an associated increase in dust. Long-term visual impacts would be minimal because most of the project would be located within existing disturbance. In addition, the Proposed Action would have limited visibility from major transportation corridors because it sits within a bowl-like structure that is screened by riparian vegetation directly to the north and steeper topography and junipers directly to the south. The topography within the project location is relatively flat which would limit the amount of cut and fill required for construction and visual impacts. To meet VRM Class II and Class III objectives the standard Best Management Practices (BMPs) related to reclamation and facility paint colors would mitigate the visual impacts created by the installation of the pipelines (Appendix A).

No Action Alternative

Under the No Action Alternative the ROW applications for the use of Federally administered lands would be denied, and therefore construction of the pipelines would not occur on BLM land. However, WPX could install the pipelines entirely across private land, although the routes would be considerably longer and more expensive resulting in more surface disturbance and visual impacts than that associated with the with the Proposed Action identified in this EA.

Water Quality, Surface

Surface Water

Affected Environment

The project lies approximately 3 miles southwest of Parachute and 1.5 miles west of Battlement Mesa, Colorado on the Colorado River Valley floor. The Proposed Action is located on the alluvial fan adjacent to the Colorado River. The ephemeral drainage, Dry Creek, drains to the Colorado River and borders the project area but due to topography will not receive runoff from the project.

The Proposed Action would occur within the Colorado River below Rifle Creek USGS 6th-code hydrologic unit, which empties directly into the Colorado River north of the project. According to the *Stream Classifications and Water Quality Standards* (CDPHE, Water Quality Control Commission [WQCC] Regulation No. 37) (CDPHE 2007), unnamed ephemeral drainages that drain the project sections in the Smith Gulch and the Colorado River are within segment 19, which includes tributaries to the Colorado River from immediately below its confluence with Parachute Creek to its confluence with Roan Creek. Following is a brief description of segment 19.

- Segment 19 – This segment has been classified aquatic life warm 1, recreation E, and agriculture. Aquatic life warm 1 indicates that this water course is capable of sustaining a wide variety of warm water biota due to habitat, flows, or correctable water quality conditions. Recreation class E refers to waters that are used for primary contact recreation. In addition, this segment is suitable or intended to become suitable for agricultural purposes that include irrigation and livestock use.

No specific portions of streams within the project area along segment 19 are on the State of Colorado’s *303(d) List of Impaired Waters and Monitoring and Evaluation List* (CDPHE, WQCC Regulation No. 93) (CDPHE 2010). *Colorado’s Monitoring and Evaluation List* identifies water bodies where there is reason to suspect water quality problems, but uncertainty also exists regarding one or more factors (CDPHE 2010).

The USGS has collected surface water flow and quality data from the Colorado River below the project area near Rulison in 1977 and 1978 (Table 8).

| <i>Parameter</i> | <i>Colorado River below Rulison CO, USGS Site #09092570 01/18/1978</i> | <i>Colorado River below Rulison CO, USGS Site #09092570 4/8/1977</i> |
|--------------------------------------|--|--|
| Instantaneous discharge (cfs) | 1,500 | 1,560 |
| Temperature, water (°C) | 2.5 | 11 |
| Field pH (standard units) | 7.9 | 8.1 |
| Specific conductance (µS/cm/cm at | 1,320 | 1,200 |
| Total Dissolved Solids (mg/L) | 756 | 733 |
| Hardness as CaCO ₃ (mg/L) | 280 | 250 |
| Chloride (mg/L) | 230 | 230 |
| Selenium (µg/L) | 2 | 1 |
| Dissolved oxygen (mg/L) | 11.2 | 10 |

Note: NA = data not available. Source: USGS 2007.

No sediment measuring stations are present on the Colorado River or its tributaries near the pad location. The closest downstream station on the Colorado River is near DeBeque, Colorado. A summary of USGS data collected at this station indicates a mean sediment load of 1,817 tons per day during the period of 1974 to 1976. The maximum and minimum for this location during the same period was 41,300 and 8 tons/day respectively (USGS 2007).

Proposed Action

The Proposed Action would result in approximately 1.76 acres of total short term surface disturbance in the pipeline corridor. Reclamation plans would be implemented and monitored following the proposed

construction activities. Potential impacts to surface waters could occur from surface-disturbing activities, traffic, and waste management. Surface-disturbing activities associated with the pipeline can cause loss of vegetation cover, increased soil compaction, temporarily increased availability of sediments for runoff events, increased volume and velocity of runoff, and increase sedimentation to surface waters.

The proposed pipeline route has the potential indirectly impact the Colorado River but will directly impact the river or other ephemeral drainages in the project area. Other substances associated with construction-related activities, including petroleum-based hydrocarbons, could also be carried by runoff into surface waters. Initially, impacts would be minimized by proper stormwater management and timely installation of BMPs, including control of erosion, stockpiling of topsoils, and timely rehabilitation of disturbed surfaces. Inspection and monitoring of construction activities to identify possible spill events and ensure required clean-up would also reduce these potential impacts.

Pipelines associated with the transport of liquids would be pressure-tested to detect leakage prior to use. Implementation of the standard and site-specific COAs for mitigating impacts to surface waters (Appendix A) would minimize risks of adverse impacts associated with construction and ongoing

No Action Alternative

Under the No Action Alternative the ROW applications for the use of Federally administered lands would be denied, and therefore construction of the pipelines would not occur on BLM land. However, WPX could install the pipelines entirely across private land, although the routes would be considerably longer and more expensive resulting in more surface disturbance and more water quality impacts than that associated with the with the Proposed Action identified in this EA.

Wildlife, Aquatic

Affected Environment

The project area includes a number of special status fish species, including Federally listed threatened and endangered species and BLM sensitive species (see section on Special Status Species). In addition to the special status fishes are a variety of native and non-native fish species and other aquatic organisms that occur within the project area and do not qualify as special status species. This includes the brook trout (*Salvelinus fontinalis*), which is found in Wallace Creek along with the Colorado River cutthroat trout that were discussed in the Special Status Species section.

In addition to fishes, larval forms of amphibians present in the area—including the tiger salamander (*Ambystoma tigrinum*), Woodhouse's toad (*Bufo woodhousii*), and western chorus frog (*Pseudacris triseriata*)—are aquatic and breathe through gills. In some locales, tiger salamanders achieve adult reproductive status while retaining their gills; these neotenic forms remain fully aquatic throughout their lives. Because they are tied to surface water for breeding, amphibians are vulnerable to the same types of physical and environmental stressors as are fish, including chemical contaminants.

Aquatic macroinvertebrates living in perennial streams during a portion of their lifecycles include larvae of stoneflies, mayflies, and some caddisflies in fast-flowing reaches with rocky or detrital substrates. In slow-flowing portions creeks with fine substrate, aquatic macroinvertebrates include the larvae of midges, mosquitoes, and other caddisflies in addition to adult forms of aquatic beetles and true bugs. These species are able to tolerate relatively warm, turbid, and poorly oxygenated waters, and their more abbreviated larval stages allow them to reproduce in intermittent streams and in seasonally inundated overbank areas.

Environmental Consequences

Proposed Action

Wallace Creek, a perennial stream and tributary of the Colorado River, is located approximately 1.5 miles west of the project area. Fish surveys in the upper reaches of Wallace Creek conducted by CPW and BLM have documented a small population of Colorado River cutthroat trout, a native trout listed as sensitive by the BLM and discussed in the section on Special Status Species. The brook trout, a non-native sportfish widely stocked throughout the region, also occupies the creek. This trout of eastern North America has been widely introduced in mountainous areas of Colorado because of its tolerance for slightly warmer waters than the cutthroat trout and its ability to reproduce successfully in streams with small flows.

Aquatic macroinvertebrates living in perennial streams such as Wallace Creek during a portion of their lifecycles include larvae of stoneflies, mayflies, and some caddisflies in fast-flowing reaches with rocky or detrital substrates. Both the aquatic larvae and winged adults of these insects are the primary prey for trout in Wallace Creek. Terrestrial invertebrates that land or fall onto the water surface or are carried into the stream in runoff from adjacent uplands provide a secondary prey base. Slow-flowing portions of Wallace Creek with fine substrates, aquatic macroinvertebrates are likely to support the larvae of midges, mosquitoes, and some caddisflies. These species are able to tolerate relatively warm, turbid, and poorly oxygenated waters, and their more abbreviated larval stages allow them to reproduce in intermittent streams and in seasonally inundated overbank areas.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and thereby slightly increasing potential impacts to Aquatic Wildlife than associated with the Proposed Action identified in this EA.

Wildlife, Terrestrial

Affected Environment

Terrestrial wildlife habitats and the baseline conditions that affect habitat availability and quality are presented in the Vegetation section of this EA. The project vicinity provides habitats for various species of big game, small game, and nongame mammals and birds that are found in low- to mid-elevation habitats of west-central Colorado.

Large Mammals

The site is located within winter range and severe winter range for both mule deer (*Odocoileus hemionus*) and Rocky Mountain elk (*Cervus elaphus nelsoni*) as mapped by CPW (2011), as well as a winter concentration area for elk. Winter range is that part of the overall range of a species where 90% of the individuals are located during the average five winters out of ten from the first heavy snowfall to spring green-up, or during a site-specific period of winter as defined for each data analysis unit (DAU) (CPW 2011). Severe winter range is that part of the range of a species where 90% of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten (CPW 2006). Elk winter concentration areas are that part of the winter range of a species where densities are at least 200% greater than the surrounding winter range density during the

same period used to define winter range in the average five winters out of ten. Field surveys indicate that the project area is occupied winter range for elk and that mule deer occupy on a year-round basis.

Large carnivores present in the project vicinity include the mountain lion (*Puma concolor*) and black bear (*Ursus americanus*). CPW (2009) has mapped all of the analysis area as black bear (*Ursus americanus*) overall range. Mountain lions move seasonally to generally follow migrations of their preferred prey, mule deer. Two medium-sized carnivores, the coyote (*Canis latrans*) and bobcat (*Lynx rufus*), are also present throughout the region in open habitats and broken or wooded terrain, respectively, where they hunt for small mammals, reptiles, and ground-dwelling birds. Smaller carnivores in habitats similar to those near the project site include the red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*) and striped skunk (*Mephitis mephitis*).

Small mammals present within the planning area include rodents such as the rock squirrel (*Spermophilus variegatus*), least chipmunk (*Neotamias minimus*), and packrat (bushy-tailed woodrat) (*Neotoma cinerea*), as well as the desert cottontail (*Sylvilagus nuttallii*). Rodents and, to a lesser extent rabbits, are the primary prey base for a variety of avian and mammalian predators.

Resident Raptors and Other Birds

As mentioned in the section on Migratory Birds, raptors potentially nesting in the large pinyon and juniper trees throughout the project vicinity include two small resident hawks (Cooper's hawk [*Accipiter cooperii*] and sharp-shinned hawk [*A. striatus*]) and, where taller conifers are present for nesting or perching, two larger resident raptors (red-tailed hawk [*Buteo jamaicensis*] and great horned owl [*Bubo virginiana*]). A migratory buteo (Swainson's hawk [*B. swainsoni*]) is potentially present during the nesting season. Other raptors potentially using the project area for nesting or foraging include the resident long-eared owl (*Asio otus*) and two small, migratory species, the flammulated owl (*Otus flammeolus*) and northern pygmy-owl (*Glaucidium gnoma*). The northern harrier, a ground-nesting hawk, is unlikely to breed in proximity to the site but could use unwooded areas of the Colorado River floodplain while foraging for prey.

Other residents or short-distance migrants in the project vicinity include the northern flicker (*Colaptes auratus*), common raven (*Corvus corax*), black-billed magpie (*Pica hudsonia*), American robin (*Turdus migratorius*), blue-gray gnatcatcher (*Poliophtila caerulea*), and house finch (*Haemorhous mexicanus*). See the sections on Migratory Birds and Special Status Species for discussions of other birds in the area.

The wild turkey (*Meleagris gallopavo*) is native to North America and is the largest upland gamebird. Wild turkeys are omnivorous, foraging on the ground or climbing shrubs and small trees to feed. They prefer eating hard mast such as acorns, nuts, and various trees, including pinyon pine as well as various seeds, berries such as juniper and bearberry, roots and insects. Wild turkeys often feed in cow pastures and are also known to eat a wide variety of grasses. Wild turkeys have been observed in the vicinity of the Proposed Action.

A large wading bird, the great blue heron (*Ardea herodias*) is common along the Colorado River in the CRVFO area, where it hunts for fish and amphibians in the shallows and nests in large cottonwoods. No heron nests were identified in the project vicinity, and herons may travel long distances from nest trees while foraging.

Reptiles and Amphibians

Species most likely to occur include two species of lizard—the western fence lizard (*Sceloporus undulatus*) and plateau striped whiptail (*Cnemidophorus velox*)—along the Colorado River floodplain, in

addition to non-venomous snakes such as the western terrestrial garter snake (*Thamnophis elegans*), racer (*Coluber constrictor*), smooth green snake (*Opheodrys vernalis*), and milk snake (*Lampropeltis triangulum*). A larger species, the gopher snake (bullsnake) (*Pituophis catenifer*) is potentially present in xeric shrublands or grassy areas farther from the river. The Colorado River floodplain is also potentially suitable for the Great Basin spadefoot and northern leopard frog (see the section on Special Status Species) and two additional amphibians, Woodhouse's toad (*Bufo woodhousii*) and the western chorus frog (*Pseudacris triseriata*). Within the CRVFO and vicinity, Woodhouse's toad occurs primarily along ephemeral washes that do not support fish and contain pools of water for a period of at least a few weeks every spring. The chorus frog occurs primarily in cattail and bulrush wetlands and along the vegetated margins of seasonal or perennial ponds and slow-flowing streams.

Environmental Consequences

Proposed Action

Direct impacts to terrestrial wildlife from the Proposed Action may include mortality, disturbance, nest abandonment/nesting attempt failure, or site avoidance/displacement from otherwise suitable habitats. These effects could result from the 1.76 acres of habitat loss or modification, increased noise from vehicles and operation of equipment, increased human presence, and collisions between wildlife and vehicles. Impacts would be more substantial during critical seasons, such as winter (deer and elk) or the spring/summer breeding season (raptors, songbirds, amphibians). Deer and elk are often restricted to smaller areas during the winter months and may expend high amounts of energy to move through snow, locate food, and maintain body temperature. Disturbance during the winter can displace wildlife, depleting much-needed energy reserves and may lead to decreased over winter survival.

The greatest impact on wildlife, especially big game and raptors, would be the disturbance caused by increased human activity, equipment operation, vehicle traffic, harassment by any dogs brought to the site by contractors, and noise related to drilling and completion activities. Most species of wildlife are relatively secretive and distance themselves from these types of disturbance or move to different areas screened by vegetation screening or topographic features. This avoidance, referred to as displacement, results in underuse of habitat near the disturbance. Avoidance of forage and cover resources adjacent to disturbance reduces habitat utility and the capacity of the affected acreage to support wildlife populations.

Risks to small mammals, reptiles, and amphibians consist primarily of mortality from vehicles and equipment operations or from exposure to spilled chemical pollutants. The SPCC plan is intended to reduce the risk of acute toxicity of contaminants. The limited disturbance area makes it unlikely that any of these species would be adversely affected, and any such impacts would be expected to be primarily at the level of individuals and not the population or species.

No Action Alternative

Under the No Action Alternative, the Federal ROW grant authorizing the installation of the pipelines would be denied. No new surface disturbance would occur on BLM land. However, WPX could install longer pipelines entirely across private land, resulting in more surface disturbance and thereby slightly increasing potential impacts to Terrestrial Wildlife than associated with the Proposed Action identified in this EA.

SUMMARY OF CUMULATIVE IMPACTS

Historically, habitat loss or modification in the CRVFO areas was characteristic of agricultural, ranching lands, rural residential, with localized industrial impacts associated with the railroad and Interstate 70

corridors and the small communities. More recently, the growth of residential and commercial uses, utility corridors, oil and gas developments, and other rural industrial uses (e.g., gravel mining along the Colorado River) has accelerated the accumulation of impacts in the area. Cumulative impacts have included (1) direct habitat loss, habitat fragmentation, and decreased habitat effectiveness; (2) increased potential for runoff, erosion, and sedimentation; (3) expansion of noxious weeds and other invasive species; (4) increased fugitive dust from construction of oil and gas pads, roads, and pipelines and associated truck travel; (5) increased noise, especially along access and haul roads; (6) increased potential for spills and other releases of chemical pollutants; and (7) decreased scenic quality.

Although none of the cumulative impacts was described in the 1999 FSEIS (BLM 1999a) as significant, and while new technologies and regulatory requirements have reduced the impacts of some land uses, it is clear that past, present, and reasonably foreseeable future actions have had and would continue to have adverse effects on various elements of the human environment. Anticipated impacts for existing and future actions range from negligible to locally major, and primarily negative, for specific resources.

The primary bases for this assessment are twofold: First, the rate of development, particularly oil and gas development, has generally been increasing in the area, resulting in an accelerated accumulation of individually nominal effects. Second, residential and commercial expansion, as well as most of the oil and gas development, has occurred on private lands where mitigation measures designed to protect and conserve resources may not be in effect to the same extent as on BLM lands. Recent COGCC regulations have closed considerably the gap between the potential environmental impacts associated with development of private versus Federal fluid mineral resources.

It is clear that the Proposed Action would contribute to the collective adverse impact for some resources. Although the contribution would be minor, the Proposed Action would contribute incrementally to the collective impact to air quality, vegetation, migratory birds, terrestrial wildlife, and other resources.

PERSONS AND AGENCIES CONSULTED

WPX Energy: April Mestas, John Doose, Bryan Hotard, Kris Meil, Richard Jenkins, Kevin Moore

INTERDISCIPLINARY REVIEW

BLM staff from the CRVFO who participated in the preparation of this EA, including review of survey results submitted by the operator’s consultants, evaluation of impacts likely to occur from implementation of the Proposed Action, and identification of appropriate COAs to be attached and enforced by BLM, are listed in Table 9.

| Table 9. BLM Interdisciplinary Team Authors and Reviewers | | |
|--|---|--|
| <i>Name</i> | <i>Title</i> | <i>Areas of Participation</i> |
| John Brogan | Archaeologist | Cultural Resources, Native American Religious Concerns |
| Jim Byers | Natural Resource Specialist | EA Project Lead, Access & Transportation |
| Allen Crockett, Ph.D. | Supervisory Natural Resource Specialist | Technical Review, NEPA Review |
| Shauna Kocman, Ph.D. | Petroleum Engineer | Air Quality, Noise, Soils, Surface Water |
| Julie McGrew | Natural Resource Specialist | Socioeconomics, Visual Resources |
| Judy Perkins, Ph.D. | Botanist | Invasive Non-native Species, Special Status Plants, Vegetation |

| Table 9. BLM Interdisciplinary Team Authors and Reviewers | | |
|--|--------------------|---|
| <i>Name</i> | <i>Title</i> | <i>Areas of Participation</i> |
| Sylvia Ringer | Wildlife Biologist | Migratory Birds, Special Status Species Animals, Aquatic and Terrestrial Wildlife |
| D.J. Beaupeurt | Realty Specialist | Rights-of-Way |

REFERENCES CITED

Bureau of Land Management (BLM). 1984. Glenwood Springs Resource Management Plan. Glenwood Springs Field Office, Colorado.

_____. 1986. BLM Manual Handbook 8410-1-Visual Resource Inventory.

_____. 1991. Record of Decision, Oil and Gas Plan Amendment. Glenwood Springs Field Office, Colorado.

_____. 1999a. Oil & Gas Leasing & Development – Final Supplemental Environmental Impact Statement. Glenwood Spring Field Office, Colorado.

_____. 1999b. Oil & Gas Leasing & Development – Record of Decision and Resource Management Plan Amendment. Glenwood Spring Field Office, Colorado.

_____. 2000. Battlement Mesa Land Health Assessment.

City Data. 2010. Garfield County, Colorado. http://www.city-data.com/county/Garfield_County-CO.html.

Colorado Department of Labor and Employment (CDLE). 2012. Colorado LMI Gateway. Summary area Profile for Garfield County, Colorado. <http://www.colmigateway.com/vosnet/lmi/area/areasummary.aspx?session=areadetail&geo=080400004>.

Colorado Department of Local Affairs (CDOLA). 2011. Population forecasts – years 2000 to 2040. Table III –B-1. Preliminary population forecasts for Colorado regions and counties, 2000-2040. <http://www.colorado.gov/cs/Satellite?c=Page&childpagename=DOLA-Main%2FCBONLayout&cid=1251593346867&pagename=CBONWrapper>.

Colorado Department of Local Affairs (CDOLA). 2012. 2010 Census data for Colorado. <http://dola.colorado.gov/dlg/demog/2010censusdata.html>.

Colorado Department of Public Health and Environment (CDPHE). 2007. Water Quality Control Commission (WQCC), Regulation No. 37 Classifications and numeric standards for Lower Colorado River basin and tables. Amended February 8, 2010; effective June 3, 2010. Available online.

_____. 2010. Water Quality Control Commission (WQCC), Regulation No. 93, 2006 Section 303(d) List Water-Quality-Limited Segments Requiring TMDLs.

Colorado Parks and Wildlife (CPW). . 2009. Black bear, elk and mule deer habitat GIS data.

_____. 2011. National Diversity Information Source (CPW-NDIS). Elk and mule deer habitat GIS data.

Colorado Oil and Gas Commission (COGCC). 2012. Colorado Oil and Gas Information System (COGIS) Production. <http://cogcc.state.co.us/>.

Garfield County. 2011. About Garfield County. <http://www.garfield-county.com/about-garfield-county/index.aspx>.

_____. 2012. 2012 Adopted Budget, Garfield County, Colorado. http://www.garfield-county.com/finance/documents/2012_Adopted_Budget_Book.pdf.

Harris, C.M. 1991. Handbook of acoustical measurements and noise control, McGraw-Hill, Inc., New York.

La Plata County, Colorado. 2002. Final La Plata County Impact Report. October.

Ruggiero, L.F., K.B. Aubrey, S.W. Buskirk, G.M. Koehler, C.J. Krebs, K.S. McKelvey, and J.M. Squires (Eds). 1999. The scientific basic for lynx conservation in the contiguous United States. Gen. Tech. Rpt. RMRS-GTR-30. USDA Forest Service, Rocky Mountain Research Station, Ogden, UT.

U.S. Department of Agriculture (USDA). 1985. Soil survey of Rifle area, Colorado: parts of Garfield and Mesa Counties. Soil Conservation Service [Natural Resources Conservation Service].

U.S. Department of Commerce (USDOC). 2012. Regional Economic Information System, Bureau of Economic Analysis (BEA). Table CA 1-3 Personal Income Summary. <http://www.bea.gov/iTable/iTable.cfm?ReqID=70&step=1>.

U.S. Department of Energy (USDOE). 2012. U.S. Energy Information Administration U.S. Natural Gas Wellhead Price. <http://www.eia.gov/dnav/ng/hist/n9190us3m.htm>.

U.S Department of the Interior (USDI). 2012. Payments in Lieu of Taxes (PILT) County Payments and Acres. USDI National Business Center. http://www.doi.gov/pilt/county-payments.cfm?term=county&state_code=CO&fiscal_yr=2012.

U.S. Department of the Interior and U.S. Department of Agriculture (USDI and USDA). 2007. Surface operating standards and guidelines for oil and gas exploration and development. The Gold Book. Fourth edition.

U.S. Environmental Protection Agency (EPA). 1974. Information on noise levels identified as requisite to protect public health and welfare with an adequate margin of safety. EPA-550/9-74-004, Arlington, VA.

U.S. Geological Survey (USGS). 2007. Water resources of the United States, NWISWeb. Water quality samples for the nation, Colorado River near DeBeque. Available online.

WestWater Engineering (WWE) 2012. Biological Survey Report – WPX Energy, SG 44-23 Surface Waterline and Buried Gasline Project.

Left blank for two-sided copying.

APPENDIX A

Surface Use Terms and Conditions for BLM Right-of-Way Grants

Left blank for two-sided copying.

TERMS AND CONDITIONS OF THE RIGHT-OF-WAY GRANT

WPX ENERGY ROCKY MOUNTAIN LLC COC75655

8-inch Diameter Buried Gas Pipeline and COC75655-01

6-inch Buried Produced Water Pipeline

These Terms and Conditions are applicable to all activities within WPX'S SG 44-23 pipelines (COC75655, natural gas pipeline; COC75655-01, produced water pipeline), unless otherwise specified. Wording and numbering of these Terms and Conditions may differ from those included in the Environmental Assessment (EA) (BLM-DOI-CONO40-2012-0103). In cases of discrepancies, the following COAs supersede earlier versions.

COMMON CARRIER: Common carrier provisions shall be applied, per 43CFR2885.11(b) construct, operate, and maintain the natural gas pipeline as a common carrier. This means that the pipeline owners and operators must accept, convey, transport, or purchase without discrimination all oil or gas delivered to the pipeline without regard to where the oil and gas was produced (*i.e.*, whether on Federal or non-Federal lands).

1. Administrative Notification. The operator shall notify the BLM representative at least 48 hours prior to initiation of construction. If requested by the BLM representative, the operator shall schedule a pre-construction meeting, including key operator and contractor personnel, to ensure that any unresolved issues are fully addressed prior to initiation of surface-disturbing activities or placement of production facilities. Project staking including trench centerlines and offset limits along the disturbance corridor shall be completed to the satisfaction of the AO prior to commencing any surface disturbing activities.
2. Copies of Grant(s) Onsite. Copies of the ROW grant/TUP with the stipulations shall be kept on site during construction and maintenance activities. All construction personnel shall review the grant and stipulations before working on the ROW/TUP.
3. Pipeline Construction and Maintenance. The pipeline shall be installed to industry and BLM "Gold Book" standards. (Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development: The Gold Book. Fourth Edition—Revised 2007; (P-417 BLM/WO/ST-06/021+3071/REV 07.) The pipeline(s) shall be buried to a minimum depth of 48 inches from the top of the pipe to the surface. Overall construction width shall not exceed 35 feet.

The centerline of the ROW and the exterior limits shall be clearly flagged prior to any construction activity. The disturbance limits of the pipelines shall be staked and /or flagged prior to any commencement of operations. No equipment or vehicle use shall be allowed outside the staked disturbance corridor of the pipeline ROW unless authorized by BLM personnel.

4. Saturated Soils Conditions. When saturated soil conditions exist on or along the proposed ROW prior to removal of vegetation or stripping of topsoil in an area, construction in that areas shall be halted until soil material dries out or is frozen sufficiently for construction to proceed without undue damage and erosion to soils.
5. Utilities Locations. All existing pipelines, surface valves, and other utilities shall be field located, clearly marked, and the appropriate Utility Notification Center (www.unc.org) shall be notified before

any construction/surface work occurs. All publicly owned underground facilities shall be marked according to the APWA color code.

6. Pipeline Warning Signs. Pipeline warning signs shall be installed within 5 days of completion of construction and prior to use of the pipeline for transportation of product. Pipeline warning shall be installed at all road crossings and shall be visible from sign to sign along the ROW. For safety purposes each sign shall be permanently marked with the operator's name and shall clearly identify the owner (emergency contact) and purpose (product) of the pipeline.
7. Sanitary Site Conditions. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment. Disposal of all liquid and solid wastes produced during construction or operation of the pipeline shall be in an approved manner so as to not adversely affect the air, soil, water, vegetation, or wildlife.
8. Other Required Approvals and Permits. This authorization is contingent upon receipt of and compliance with all appropriate Federal, state, county and local, permits. The operator shall be responsible for obtaining all necessary environmental clearances and permits from all agencies (U.S. Army Corps of Engineers, Colorado Parks and Wildlife, U.S. Fish and Wildlife Service, Colorado Department of Transportation, Colorado Department of Public Health and Environment, Garfield County Road and Bridge, and City of Rifle) before commencing any work under this permit. Without all clearances and permits, this permit shall be not in effect. Operator shall assume all responsibility and liability related to potential environmental hazards encountered in connection with work under this permit.
9. Compliance with Federal Regulations. This grant amendment is issued subject to the holder's compliance with all applicable regulations contained in Title 43 Code of Federal Regulations parts 2800 and 2880.
10. Reporting of Undesirable Events. WPX agrees to comply with, and be bound by, the terms and conditions of 43 CFR 2880 Mineral Leasing Act, Part 2885.11, concerning the reporting of undesirable events. (Reference: Colorado NTL-3A, issued pursuant to the authority prescribed in Title 30 CFR 221.5, 221.7, and 221.36.)
11. Compliance with Laws. The operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the operator shall comply with the Toxic Substances Control Act of 1976 (TSCA), as amended (15 U.S.C. 2601 *et seq.*) with regard to any toxic substances that are used, generated by, or stored on the ROW or on facilities authorized under this ROW grant (40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release of spill of any toxic substances shall be furnished to the BLM concurrently with the filing of the reports to the involved Federal agency or State government.
12. Indemnification. The operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601 *et seq.* or the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901, *et seq.*) on

the ROW (unless the release or threatened release is wholly unrelated to the operator's activity in the ROW). This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.

13. Paint Color. All above ground structures not subject to safety requirements shall be painted **Shadow Gray** by the operator in order to meet the Visual Resource Management (VRM) requirements for the area.
14. As-Built Survey. An "as-built" center line survey of the right-of-way crossing Federal land, provided by a Certified Land Surveyor licensed to work in the State of Colorado, shall be provided to the BLM within 2 months of completion of the project.
15. Open Trenches. All open trenches shall be maintained in a safe condition to ensure no side-wall collapsing occurs and that all personnel, livestock, and wildlife are safe from falling into an open trench or being trapped or injured within the trenches.

Some protective systems may include (*Reference: OSHA 29 CFR 1926.650*):

- Shoring by installing supports to prevent soil movement for trenches that do not exceed 20 feet in depth.
- Shielding to protect workers by using trench boxes or other types of supports to prevent soil cave-ins.
- Always provide a way to exit a trench, such as a ladder or ramp, no more than 25 feet of lateral travel for personnel, livestock, or wildlife in the trench.
- Keep spoils at least 2 feet back from the edge of a trench.
- Make sure that trenches are inspected by competent personnel prior to entry and after any hazard-increasing event such as a rainstorm, etc.

Trenches adjacent to access roads and/or public or private dwellings shall be covered and/or warning barriers erected upon completion of daily construction or at any time personnel are not present on the construction site.

16. Welding of Pipeline. A minimum of 10% of all welds shall be x-rayed. Visual inspections shall be performed on 100% of all pipeline welds. Any pipeline occurring within the Rifle Municipal Watershed Area and/or within 100 feet of any perennial or intermittent stream crossing, shall have all welds x-rayed. Area All bored areas shall have 100% x-rays of all pipeline welds. (Ref. 49 CFR 192.225 Welding procedures) All welders shall be appropriately certified. (Ref. 49 CFR 192.227 Qualification of welders). (NOTE: 49 CFR Subpart F—Joining of Materials Other than by Welding (192.281 includes plastic pipe).)
17. Fire Suppression. Welding or other use of an acetylene or other torch with open flame shall be operated in an area barren or cleared of all flammable materials at least 10 feet on all sides of equipment. Internal combustion engines must be equipped with approved spark arrestors which meet either (a) the USDA Forest Service Standard 5100-1a or (b) Society of Automotive Engineers (SAE) recommended practices J335(b) and J350(a).
18. Pipeline Testing. The entire pipeline shall be tested in compliance with DOT regulations (49 CFR Part 192) and/or COGCC regulations, whichever are applicable. Incremental segments of the pipeline shall be filled to the desired maximum pressure and held for the duration of the test (8 hours minimum). (Ref. 49 CFR 192.503.c).

Notification to all nearby residents as well as the appropriate County Dispatch Center shall be made no less than 24 hours prior to the pressure test and blow down. All necessary and reasonable precautions shall be taken to ensure the safety of the employees and the general public, the lands, domestic animals and wildlife, etc. This may include, but not be limited to, restriction of access to the pipe being tested, temporary warning signs installed in appropriate locations, effective communication.

19. Notification of Other ROW Holders. The holder shall notify all existing ROW holders in the project area prior to beginning any surface disturbance or construction activities. It is the holder's responsibility to coordinate with all other ROW holders and resolve any conflicts.
20. Restrictions on Onsite Materials Storage. The operator shall not store hazardous materials, chemicals, fuels, lubricating oils, or perform concrete coating activities within 200 feet of any water body or dry drainage. Equipment or vehicles that are crossing or working within 200 feet of water bodies shall not be refueled unless the Environmental Inspector gives a specific exception. If any hazardous material must be temporarily stored or transferred within 200 feet of a water body (i.e., stationary pumps), it must be placed within a secondary containment structure that is capable of containing 110 percent of the volume of the stored material.
21. Traffic Control. Appropriate precautions for traffic control on public lands shall be in place and conform to the guidelines of the "Manual on Uniform Traffic Control Devices (MUTCD): Temporary Traffic Control Elements". A copy of the traffic control plan, if requested by the Authorized Officer, shall remain on site at all times during construction activities.
22. Survey Monuments. The holder shall protect all survey monuments found within the right-of-way. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the authorized officer and the respective installing authority, if known. Where General Land Office or Bureau of Land Management right-of-way monuments or references are obliterated during operations, the holder shall secure the services of a registered land surveyor or a Bureau Cadastral Surveyor to restore the disturbed Monument(s) and References using survey procedures found in the Manual of Surveying Instruction of the Survey of the Public Lands in the United States, latest edition. The holder shall record survey into the appropriate county and send a copy to the authorized officer. If the Bureau Cadastral Surveyors or other Federal surveys are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost. Reference 43 CFR 9185.4-1(a).
23. Dust Abatement. The operator shall implement dust abatement measures as needed to prevent fugitive dust from vehicular traffic, equipment operations, or wind events. The BLM may direct the operator to change the level and type of treatment (watering or application of various dust agents, surfactants, and road surfacing material) if dust abatement measures are observed to be insufficient to prevent fugitive dust. Posted speed limits on county and private roads shall be strictly followed during all phases of the pipeline project to reduce vehicle speeds and thereby reduce dust along the access roads.
24. Reclamation. The goals, objectives, timelines, measures, and monitoring methods for final reclamation of oil and gas disturbances are described in Appendix I (Surface Reclamation) of the 1998 Draft Supplemental EIS (DSEIS). Specific measures to follow during interim and temporary (pre-interim) reclamation are described below.

- a. Reclamation Plans. In areas that have low reclamation potential or are especially challenging to restore, reclamation plans will be required prior to ROW Grant approval. The plan shall contain the following components: detailed reclamation plans, which include contours and indicate irregular rather than smooth contours as appropriate for visual and ecological benefit; seeding; soil test results and/or a soil profile description; amendments to be used; soil treatment techniques such as roughening, pocking, and terracing; erosion control techniques such as hydromulch, blankets/matting, and wattles; and visual mitigations, if in a sensitive Visual Resource Management (VRM) area.
- b. Deadline for Reclamation Earthwork and Seeding. Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring, unless BLM approves otherwise based on weather. If pipeline construction occurs discontinuously or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an unreclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season, individual reclamation requirements for sensitive areas including sensitive plant species or ecological sites, and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.

The deadlines for seeding described above are subject to extension upon approval of the BLM based on season, timing limitations (TLs), or other constraints on a case-by-case basis. If the BLM approves an extension for seeding, the operator may be required to stabilize the reclaimed surfaces using hydromulch, erosion matting, or other method until seeding is implemented.

- c. Topsoil Stripping, Storage, and Replacement. All topsoil shall be stripped following removal of vegetation during construction of pipelines, access roads, or other surface facilities. In areas of thin soil, a minimum of the upper 6 inches of surficial material shall be stripped. The BLM may specify a stripping depth during the onsite visit or based on subsequent information regarding soil thickness and suitability. The stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation.
- d. Seedbed Preparation. For cut-and-fill slopes, initial seedbed preparation shall consist of backfilling and recontouring to achieve the configuration specified in the reclamation plan. For compacted areas, initial seedbed preparation shall include ripping to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping shall be conducted in two passes at perpendicular directions. Following final contouring, the backfilled or ripped surfaces shall be covered evenly with topsoil.

Final seedbed preparation shall consist of scarifying (raking or harrowing) the spread topsoil prior to seeding. If more than one season has elapsed between final seedbed preparation and seeding, and if the area is to be broadcast-seeded or hydroseeded, this step shall be repeated no more than 1 day prior to seeding to break up any crust that has formed.

If directed by the BLM, the operator shall implement measures following seedbed preparation (when broadcast-seeding or hydroseeding is to be used) to create small depressions to enhance capture of moisture and establishment of seeded species. Depressions shall be no deeper than 1 to 2 inches and shall not result in piles or mounds of displaced soil. Excavated depressions shall not be used unless approved by the BLM for the purpose of erosion control on slopes. Where

excavated depressions are approved by the BLM, the excavated soil shall be placed only on the downslope side of the depression.

If directed by the BLM, the operator shall conduct soil testing prior to reseeding to identify if and what type of soil amendments may be required to enhance revegetation success. At a minimum, the soil tests shall include texture, pH, organic matter, sodium adsorption ratio (SAR), cation exchange capacity (CEC), alkalinity/salinity, and basic nutrients (nitrogen, phosphorus, potassium [NPK]). Depending on the outcome of the soil testing, the BLM may require the operator to submit a plan for soil amendment. Any requests to use soil amendments not directed by the BLM shall be submitted to the CRVFO for approval.

Seedbed preparation is not required for topsoil storage piles or other areas of temporary seeding.

- e. Seed Mixes. A seed mix consistent with BLM standards in terms of species and seeding rate for the specific habitat type shall be used on all BLM lands affected by the project (see Attachment 1 of the letter provided to operators dated April 6, 2012). Note that temporary seeding no longer allows the use of sterile hybrid non-native species.

For private surfaces, the menu-based seed mixes are recommended, but the surface landowner has ultimate authority over the seed mix to be used in reclamation. The seed shall contain no prohibited or restricted noxious weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of “other crop” seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended. Seed tags or other official documentation shall be submitted to BLM at least 14 days before the date of proposed seeding for acceptance. Seed that does not meet the above criteria shall not be applied to public lands.

- f. Seeding Procedures. Seeding shall be conducted no more than 24 hours following completion of final seedbed preparation.

Where practicable, seed shall be installed by drill-seeding to a depth of 0.25 to 0.5 inch. Where drill-seeding is impracticable, seed may be installed by broadcast-seeding at twice the drill-seeding rate, followed by raking or harrowing to provide 0.25 to 0.5 inch of soil cover or by hydroseeding and hydromulching. Hydroseeding and hydromulching shall be conducted in two separate applications to ensure adequate contact of seeds with the soil.

If interim revegetation is unsuccessful, the operator shall implement subsequent reseeding until interim reclamation standards are met.

- g. Mulch. Mulch shall be applied within 24 hours following completion of seeding. Mulch may consist of either hydromulch or of certified weed-free straw or certified weed-free native grass hay crimped into the soil.

NOTE: Mulch is not required in areas where erosion potential mandates use of a biodegradable erosion-control blanket (straw matting).

- h. Erosion Control. Cut-and-fill slopes shall be protected against erosion with the use of water bars, lateral furrows, or other measures approved by the BLM. Cut-and-fill slopes along drainages or in areas with high erosion potential shall also be protected from erosion using hydromulch designed specifically for erosion control or biodegradable blankets/matting, bales, or wattles of weed-free straw or weed-free native grass hay. A well-anchored fabric silt fence shall also be

placed at the toe of cut-and-fill slopes along drainages or to protect other sensitive areas from deposition of soils eroded off the slopes. Additional BMPs shall be employed as necessary to reduce soil erosion and offsite transport of sediments.

- i. Monitoring. The operator shall conduct annual monitoring surveys of all sites categorized as “operator reclamation in progress” and shall submit an annual monitoring report of these sites to the BLM by **December 31** of each year. The monitoring program shall use the four Reclamation Categories defined in Appendix I of the 1998 DSEIS to assess progress toward reclamation objectives. The annual report shall document whether attainment of reclamation objectives appears likely. If one or more objectives appear unlikely to be achieved, the report shall identify appropriate corrective actions. Upon review and approval of the report by the BLM, the operator shall be responsible for implementing the corrective actions or other measures specified by the BLM.
25. Weed Control. The operator shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the Glenwood Springs Field Office *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*, dated March 2007. A Pesticide Use Proposal (PUP) must be approved by the BLM prior to the use of herbicides. Annual weed monitoring reports and Pesticide Application Records (PARs) shall be submitted to BLM by **December 1**.
26. Big Game Winter Range. In conformance with the current land use plan that governs ROW actions, all activities related to pipeline construction on the Federal portion of the pipeline route are prohibited from **December 1 to April 30**.
27. Bald and Golden Eagles. It shall be the responsibility of the operator to comply with the Bald and Golden Eagle Protection Act (Eagle Act) with respect to “take” of either eagle species. Under the Eagle Act, “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest and disturb. “Disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior. Avoidance of eagle nest sites, particularly during the nesting season, is the primary and preferred method to avoid a take. Any oil or gas construction, drilling, or completion activities planned within 0.5 mile of a bald or golden eagle nest, or other associated activities greater than 0.5 miles from a nest that may disturb eagles, should be coordinated with the BLM project lead and BLM wildlife biologist and the USFWS representative to the BLM Field Office (970-876-9051).
28. Raptor Nesting. Raptor nest surveys in the project vicinity resulted in the location of a raptor nest structure in proximity to the proposed pipeline. To protect nesting raptors, a 60-day TL shall be applied to initiation of construction activities within 0.25 mile of the nest during the nesting period of **May 1 to July 1**. An exception to this TL may be granted for any year in which a subsequent survey determines one of the following: (a) the nest is in a severely dilapidated condition or has been destroyed due to natural causes, (b) the nest is not occupied during the normal nesting period for that species, (c) the nest was occupied but subsequently failed due to natural causes, or (d) the nest was occupied, but the nestlings have fledged and dispersed from the nest. If project-related activities are initiated within the specified buffer distance of any active nest, even if outside the 60-day TL period, the operator remains responsible for compliance with the Migratory Bird Treaty Act (MBTA) with respect to a “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (see COA 29).

29. Birds of Conservation Concern. Pursuant to BLM Instruction Memorandum 2008-050, all surface-disturbing activities are prohibited within potential habitat for nesting BCC species from **May 1 to July 1** to reduce impacts to Birds of Conservation Concern (BCC). An exception to this TL will be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate that no BCC species are nesting within 30 meters (100 feet) of the area to be disturbed. Nesting shall be deemed to be occurring if a territorial (singing) male is present within the distance specified above. Nesting surveys shall include an aural survey for diagnostic vocalizations in conjunction with a visual survey for adults and nests. Surveys shall be conducted by a qualified breeding bird surveyor between sunrise and 10:00 AM under favorable conditions for detecting and identifying a BCC species. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated prior to May 1 and continue into the 60-day period at the same location.
30. Migratory Birds. It shall be the responsibility of the operator to comply with the Migratory Bird Treaty Act (MBTA) with respect to “take” of migratory bird species, which includes injury and direct mortality resulting from human actions not intended to have such result. All mortality or injury to birds shall be reported immediately to the BLM project lead and to the USFWS representative to the BLM Field Office at 970-243-2778 x28 and visit <http://www.fws.gov/mountain-prairie/contaminants/oilpits.htm>.
31. Range Management. Range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided during development of natural gas resources to the maximum extent possible. If range improvements are damaged during exploration and development, the operator will be responsible for repairing or replacing the damaged range improvements. If a new or improved access road bisects an existing livestock fence, steel frame gate(s) or a cattle guard with associated bypass gate shall be installed across the roadway to control grazing livestock.
32. Fossil Resources. All persons associated with operations under this authorization shall be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with operations under this authorization any of the above resources are encountered the operator shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM of the findings. The discovery must be protected until notified to proceed by the BLM.
- Where feasible, the operator shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM of any finds. The BLM will, as soon as feasible, have a BLM-permitted paleontologist check out the find and record and collect it if warranted. If ground-disturbing activities cannot be immediately suspended, the operator shall work around or set the discovery aside in a safe place to be accessed by the BLM-permitted paleontologist.
33. Cultural Education/Discovery. All persons in the area who are associated with this project shall be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons will be subject to prosecution. Pursuant to 43 CFR 10.4(g), the BLM shall be notified by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), activities shall stop in the vicinity of the discovery, and the discovery shall be protected for 30 days or until notified by the BLM to proceed.

If in connection with operations under this contract, the operator, its contractors, their subcontractors, or the employees of any of them discovers, encounters, or becomes aware of any objects or sites of cultural value or scientific interest such as historic ruins or prehistoric ruins, graves or grave markers, fossils, or artifacts, the operator shall immediately suspend all operations in the vicinity of the cultural resource and shall notify the BLM of the findings (16 USC 470h-3, 36 CFR 800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the BLM. Approval to proceed will be based upon evaluation of the resource. Evaluation shall be by a qualified professional selected by the BLM from a Federal agency insofar as practicable. When not practicable, the operator shall bear the cost of the services of a non-Federal professional.

Within five working days, the BLM will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- what mitigation measures the holder will likely have to undertake before the site can be used (assuming that *in-situ* preservation is not necessary)
- the timeframe for the BLM to complete an expedited review under 36 CFR 800.11, or any agreements in lieu thereof, to confirm through the SHPO State Historic Preservation Officer that the findings of the BLM are correct and that mitigation is appropriate

The operator may relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the operator shall be responsible for mitigation costs. The BLM will provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM that the required mitigation has been completed, the operator will be allowed to resume construction.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the authorization boundaries but potentially affected, either directly or indirectly, by the Proposed Action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the operator's cost, including the cost of consultation with Native American groups.

Any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361).

34. Visual Resources. Existing woody vegetation outside the ROW corridor shall be preserved when clearing and grading for the pipeline corridor. The BLM may direct that cleared woody vegetation and rocks within the ROW corridor be salvaged and redistributed over reshaped cut-and-fill slopes and along the highly visible sections of the pipeline corridor to emulate the texture closer to that of the native landscape and to encourage vegetation growth

To assist with revegetation, root systems shall be left in place where feasible and only removed in the trench construction. Above-ground facilities shall be painted **Shadow Gray** to minimize contrast with adjacent vegetation or rock outcrops.

During construction, the BLM and WPX representatives shall jointly review construction measures to determine effectiveness in meeting visual resource mitigation measures, and if subtle changes in construction techniques are warranted, they could be directed by the BLM Authorized Officer.

Left blank for two-sided copying.

FONSI
DOI-BLM-CO-N040-2012-0103-EA

The Environmental Assessment (EA) analyzing the environmental effects of the Proposed Action has been reviewed. The project design and approved mitigation measures result in a Finding of No Significant Impact (FONSI) on the human environment. Therefore, an Environmental Impact Statement (EIS) is not necessary to further analyze the environmental effects of the Proposed Action.

DECISION RECORD

DECISION: It is my decision to approve the Proposed Action of the SG 44-23 Pipelines project.

RATIONALE:

1. This decision will provide for the orderly, economical, and environmentally sound gathering and conveyance of natural gas resources from valid Federal oil and gas leases. It will also improve operational efficiency by improving the management of produced water and other fluids used in the production of natural gas.
2. Segments where new corridors must be constructed have been located and designed to minimize adverse environmental consequences.
3. This decision does not authorize the initiation of construction activities on BLM land. Construction activities will be authorized only upon issuance by BLM of a Right-of-Way (ROW) Grant and Temporary Use Permit (TUP) for portions of the buried pipelines and a Sundry Notice for the portions of the temporary surface water line on BLM land.

MITIGATION: Environmental impacts will be avoided, minimized, or mitigated by the following:

- Construction of the pipeline along an existing pipeline corridor to the extent practicable.
- Timing limitations to prohibit construction from December 1 through April 30 to protect wintering big game.
- A variety of additional restrictions applied as stipulations to the BLM ROW Grant, Temporary Use Permit and Sundry Notice.

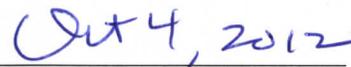
Copies of the SG 44-23 Pipelines EA are available for review at the BLM Colorado River Valley Field Office located at 2300 River Frontage Road, Silt, Colorado 81652.

NAME OF PREPARER: Jim Byers, Natural Resource Specialist, Project Lead

SIGNATURE OF AUTHORIZED OFFICIAL:



Authorized Officer



Date