

**United States Department of the Interior
Bureau of Land Management**

Colorado River Valley Field Office
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**Environmental Assessment
DOI-BLM-CO-N040-2015-0080-EA**

*SourceGas LLC
Eagle Pipeline Upgrade Project*

April 2016



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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1. INTRODUCTION

NUMBER: DOI-BLM-CO-N040-2015-0080-EA

PROJECT NAME: SourceGas Rifle to Avon Pipeline Eagle Upgrade

PLANNING UNIT: Colorado River Valley Field Office

APPLICANT: The company contact for the proposed Project is:

SourceGas LLC
600 12th Street, Suite 300
Golden, Colorado 80401

1.1. BACKGROUND

SourceGas LLC (SourceGas), together with its subsidiaries, owns and operates natural gas pipelines and provides end-user delivery and service, serving 425,000 customers. They operate over 19,340 miles of natural gas distribution, gathering, and transmission pipelines, as well as storage facilities, in Arkansas, Colorado, Nebraska, and Wyoming. SourceGas and its predecessor companies have provided natural gas service to small and rural communities for nearly 80 years.

SourceGas and its subsidiary, Rocky Mountain Natural Gas LLC (RMNG) (collectively, SourceGas), are proposing to upgrade the wall thickness of a 1.11 mile section of the Rifle to Avon natural gas pipeline on BLM. The upgrade is required in order to operate the pipeline at design pressures (up to the maximum allowable operating pressure [MAOP]) in order to fully serve the customer base in the service area, and to be in compliance with Federal pipeline operating requirements. The pipeline section to be upgraded is located in and adjacent to the Town of Eagle, Colorado (See Figure 1).

When the pipeline was constructed in 1994, it was designed for a MAOP of 1,200 pounds per square inch (psi), which met the Pipeline Hazardous Material Safety Administration (PHMSA) requirements associated with the area's population density classification of Class 1 (i.e., typical population densities found in undeveloped or rural land). However, the population of Eagle County has grown approximately 25 percent since 1994, including the build-out of the Eagle Ranch Subdivision at the southern end of the Town of Eagle. As a result of increased residential development in the vicinity of the pipeline, the population density in the project area is now currently categorized as Class 3 (i.e., a moderate population density associated with occupied buildings) by PHMSA. This classification requires an increased wall thickness of the pipeline. Until the pipeline is upgraded to a thicker-walled pipe, SourceGas is required to operate the pipeline at lower operating pressures (currently the pipeline is being operated at 900 psi), and SourceGas needs to replace the segment of the pipeline that falls within the designated Class 3 area in order to restore their ability to operate the pipeline up to its designed MAOP of 1,200 psi. The section of pipeline needing replacement is currently a 12.75-inch outer diameter, 0.219-inch thick, X-52 coated steel natural gas pipeline. The replaced segment of pipeline would still be a 12.75-inch outer diameter pipeline, but with an increased wall thickness of 0.312 inches.

This Environmental Assessment (EA) will analyze the potential impacts of upgrading the segment of pipeline on BLM lands. This EA will not analyze the segment of pipeline on private, Town of Eagle, or Town of Eagle Open Space lands. Although the BLM may identify portions of projects occurring on non-Federal lands as connected actions, that situation does not apply to the current project.

Instead, the Proposed Action would follow the current pipeline alignment on both Federal and non-Federal lands, and the portion on the Federal land would be less than half the combined total. Consequently, the portion on BLM lands does not dictate the alignment or the manner of construction for the portion on other lands.

1.2. PROJECT LOCATION AND LEGAL DESCRIPTION

The project is located on public land in Eagle County, Colorado, outside the southern edge of the Town of Eagle. The project is topographically located on the lower, northern slopes of the Seven Hermit Hills and is near the Eagle Ranch Subdivision (See Figure 1).

The legal description for the project (all in the Sixth Principal Meridian, Colorado) is as follows:

T. 5 S., R. 84 W.,
sec. 14, N1/2SW1/4;
sec. 15, lot 12 and NE1/4SE1/4;
sec. 16, lot 3;
sec. 17, NE1/4SE1/4 and SE1/4SE1/4.

The project on BLM is broken in two sections, section 1 and section 2 (See Figures 2 and 3). In Section 1, the project would start in the NE1/4SW1/4 of Section 14 and end in Lot 12 of Section 15. In Section 2, the project would start in the SE1/4SE1/4 of Section 17 and end in Lot 3 of Section 16. Access to Section 2 would be either from the Eagle Ranch Subdivision (Figure 5) from the north or Spring Creek Road (See Figure 6) to the south. Access to Section 1 would be from the Eagle Ranch Subdivision from the north or from Hardscrabble Road via an existing 2-track road from the south.

1.3. PURPOSE AND NEED

The purpose of this action is to provide an opportunity for SourceGas to use public land in the CRVFO area to construct, operate, and maintain an existing buried steel natural gas pipeline in order to provide natural gas service in a reliable and safe manner to the public for residential and commercial use (e.g., in-home and in-business heating and cooking) to communities in Eagle and Summit Counties.

The need for the action is established by BLM's responsibility, under the 1976 Federal Land Policy Management Act (FLPMA) and under the 1920 Mineral Leasing act (MLA), to respond to a request for a right-of-way grant authorizing use of public land.

1.4. PLAN CONFORMANCE REVIEW

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

Name of the Plan: Colorado River Valley Field Office Record of Decision and Approved Resource Management Plan (ROD/ARMP), approved June 12, 2015.

Decision Language: Page 106, LRT-GOAL-01, LRT-OBJ-01 – “Provide for the development of transportation systems, utilities, communication sites, and renewable energy resources when such needs are consistent with other resource values.”

Determination: The Proposed Action is in conformance with the land use plan cited above because the upgrade to the existing pipeline would provide for reliable and safe transportation of natural gas.

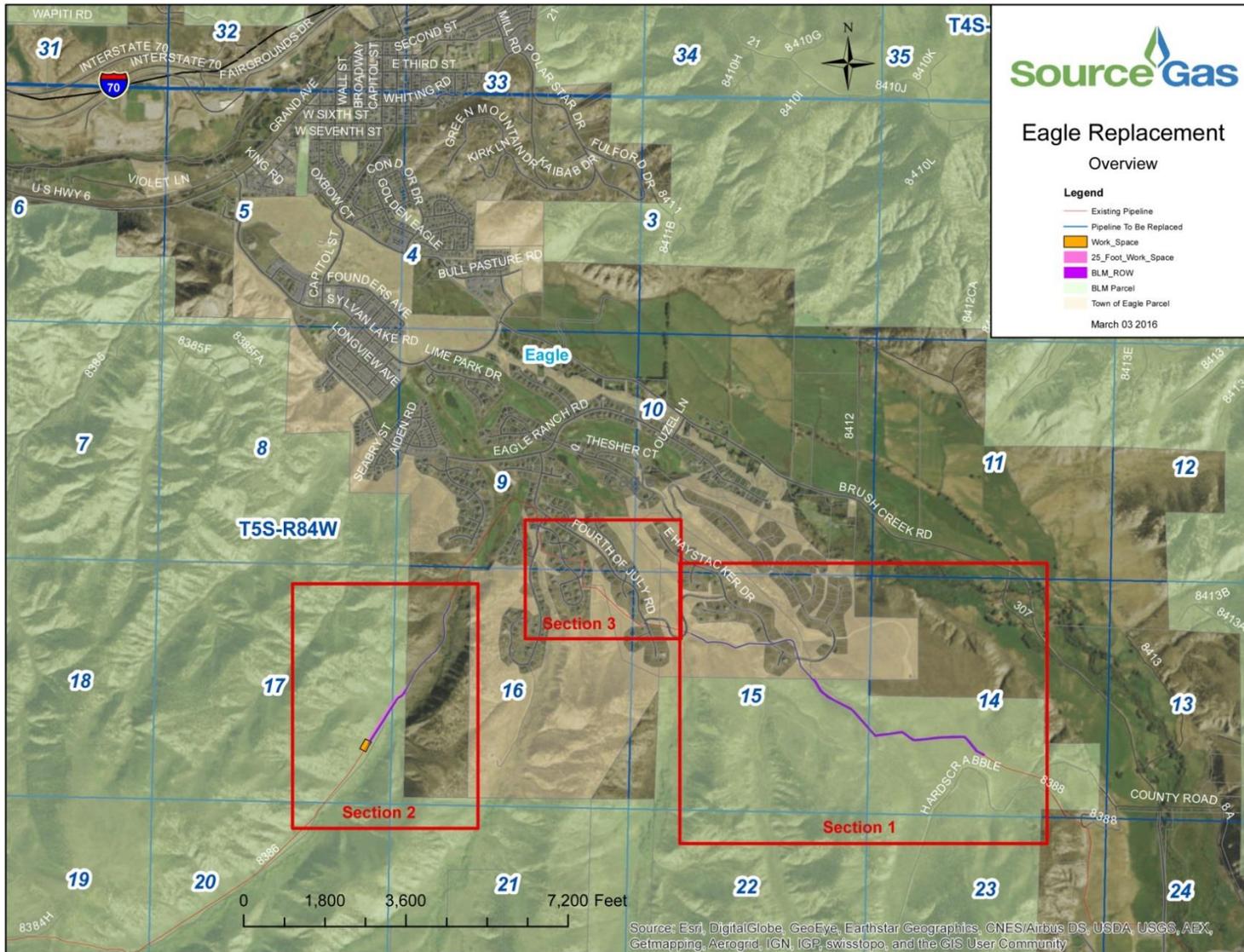


Figure 1. Project Location Map

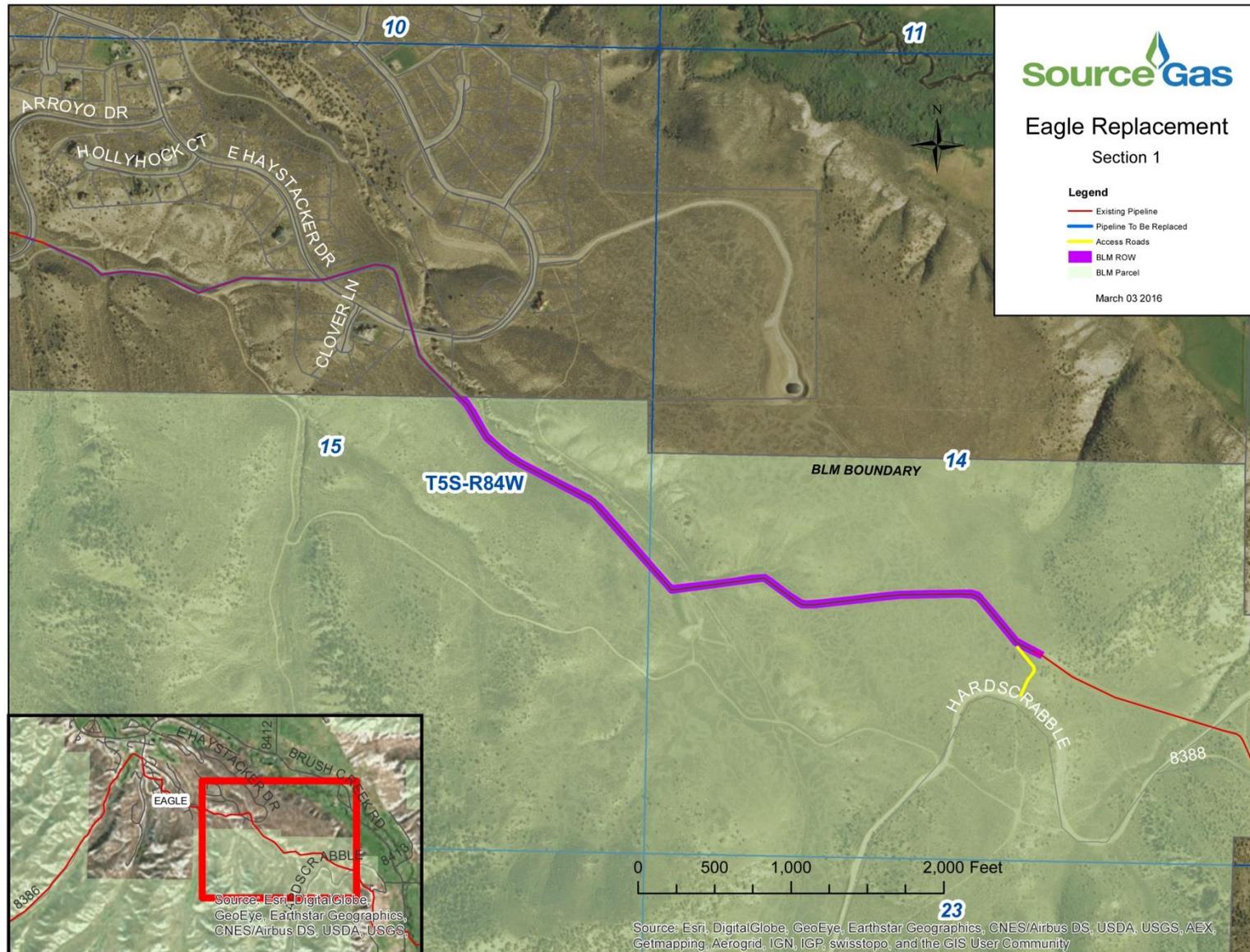


Figure 2. BLM Section 1

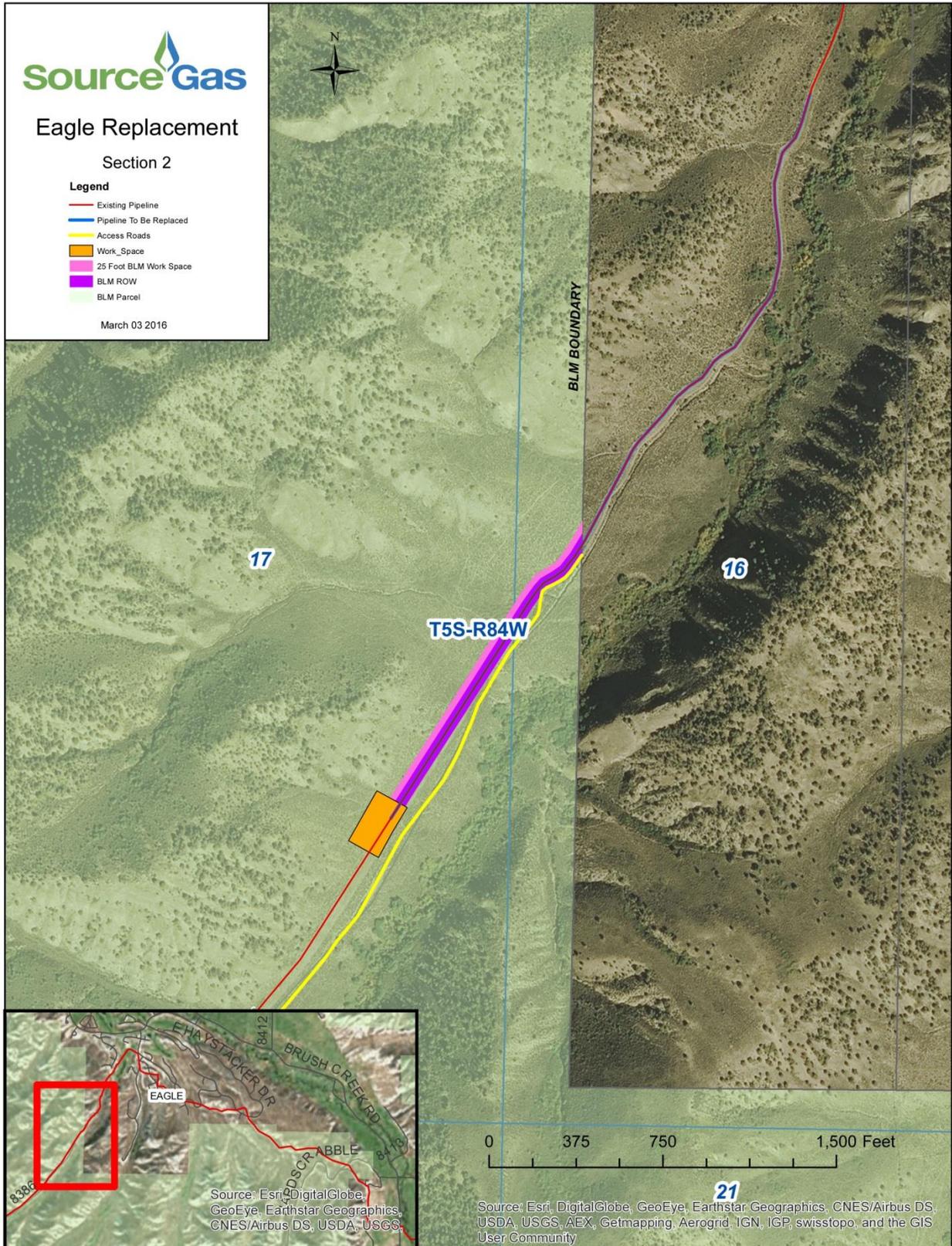


Figure 3. BLM Section 2

1.5. SCOPING

NEPA regulations (40 CFR §1500-1508) require that the BLM use a scoping process to identify potential significant issues in preparation for impact analysis. The principal goals of scoping are to allow public participation to identify issues, concerns, and potential impacts that require detailed analysis. The BLM placed a news release in the Vail Daily and Glenwood Springs Post Independent on August 5, 2015. The news release and a posting on the BLM website, invited the public to provide comments on the Proposed Action. The comment period extended from August 5, 2015, through September 4, 2015.

On August 10, 2015, SourceGas (with BLM and Town of Eagle Coordination) held a public open house meeting at the Brush Creek Pavilion in the Town of Eagle to present the project to the local residents and interested parties.

1.6. DECISION TO BE MADE

The primary decision by the BLM upon completion of this EA is whether to authorize the proposed upgrade of the existing pipeline on BLM. The existing authorized ROW grant would be amended to reflect this upgrade.

Based on the information presented and analyzed in this EA, the BLM may choose to (a) authorize the project as proposed; (b) authorize the project with modifications developed by the BLM in collaboration with the proponent; or (c) not authorize the project at this time. Options (a) and (b) would include application by the BLM of Conditions of Approval (COAs) as mitigation to avoid, minimize, or offset adverse project impacts.

The Decision Record associated with this EA may not constitute the final approval for all actions, such as individual right-of-way grants and temporary use permits associated with the proposed action. It does, however, provide the BLM with an analysis from which to base the final approval, if warranted, for individual project components.

2. PROPOSED ACTION AND ALTERNATIVES

2.1. PROPOSED ACTION

The Rifle to Avon natural gas transmission pipeline is comprised of a 12.75-inch outer diameter, 0.275-inch and 0.219-inch-thick wall, X-52 grade steel pipe that has a MAOP of 1,200 psi. The segment of pipeline in the Eagle Ranch vicinity, approximately 3.83 miles long, is currently unable to operate at its original MAOP due to the encroachment of buildings intended for human occupancy along the pipeline easement. Consequently, the area's population density classification changed from a Class 1 to a Class 3. A "Class Location Unit" is an onshore area that extends 220 yards (660 feet) on either side of the centerline of any continuous 1-mile of pipeline. A Class 1 has fewer than 10 buildings intended for human occupancy. Class 3 has more than 46 buildings intended for human occupancy or a building, or outdoor area meeting occupancy requirements within 300 feet of the pipeline.

In accordance with PHMSA requirements, the pipeline was de-rated in 2014 to meet Class 3 requirements. However, the intended design pressure must be re-established in 2016 to adequately serve customers. To accomplish this, SourceGas proposes to replace 0.219-inch-thick-wall pipe with 0.312-inch-thick-wall pipe in sections of the Eagle Ranch Class 3 buffer (1 mile-long by 220-yards wide).

The Proposed Action also involves upgrading 1.11 miles of the Rifle to Avon natural gas pipeline within the existing ROW on BLM land. The portion of the project that is on BLM land would be split into two sections as described in Table 1.

Table 1. BLM Section 1 and 2

<i>Section</i>	<i>Eastern Tie-In Point</i>	<i>Western Tie-In Point</i>	<i>Total Distance on BLM (Feet)</i>
	T. 5 S., R. 84 W.		
1 – Eastern Section	Section 14, NE1/4SW1/4	Section 15, lot 12	4,435 (0.84 miles)
2 – Western Section	Section 16, lot 3	Section 17, SE1/4SE1/4	1,426 (0.27 miles)

In Section 1, the 12-inch pipeline runs parallel to the 6-inch Eagle to Cordillera natural gas transmission pipeline (COC 003911A). The two pipelines have separate ROW authorizations. The 6-inch line has a 35-foot wide permanent ROW and the 12-inch line has a 50-foot wide permanent ROW. The ROWs for these two pipelines overlap, resulting in a combined workspace varying between 50 and 85-feet wide. In Section 2, the 12-inch line has a 50-foot wide permanent ROW. SourceGas is requesting an additional 25 feet for a temporary work area (TWA) along the 50-foot wide permanent ROW in Section 2.

The pipeline is used year-round, 24 hours per day, and transports 86 million cubic feet (mmcf) of natural gas per day. SourceGas is proposing to start construction in April 2016 and the entire construction is anticipated to last seven months with reclamation activities beginning once construction is complete. Figure 4 illustrates the typical pipeline construction sequence, which is generally described in the preceding sections.

Pre-Construction Civil Surveys

Surveys would be performed before construction activities commence to identify the centerline of the pipeline and the boundaries of the approved workspace. Flagged or painted lath would be set along the centerline and at the edges of the work limits at intervals required to maintain a line of sight. All TWAs would be marked in a similar fashion, with all four corners of each marked by flagged or painted lath. SourceGas Inspectors would be responsible for verifying that the TWAs are staked prior to construction.

Access and Equipment

Eagle County roads, BLM unimproved roads, and private land within the Town of Eagle would be used to access Sections 1 and 2. Section 1 would be accessed from private land from the north, where a temporary work area would be located, and from an existing 400-foot long 2-track road off of Hardscrabble Road (See Figure 2).

Section 2 would be potentially accessed from private land within the Town of Eagle to the north (See Figure 5), if final written permission is granted from the landowner. Otherwise, Section 1 would be accessed from Spring Creek Road near the Eagle County Airport (BLM Road 8380) (See Figure 6) proceeding east via BLM roads 8383, 8383C, 8384, and 8384H. Since a portion of road 8384H is blocked to through traffic, a portion of the existing pipeline ROW would be used to access the project location. Table 2 provides a summary of the project equipment that would be used and anticipated days of use. In addition to this list, there would be personal vehicles for approximately 25 people.

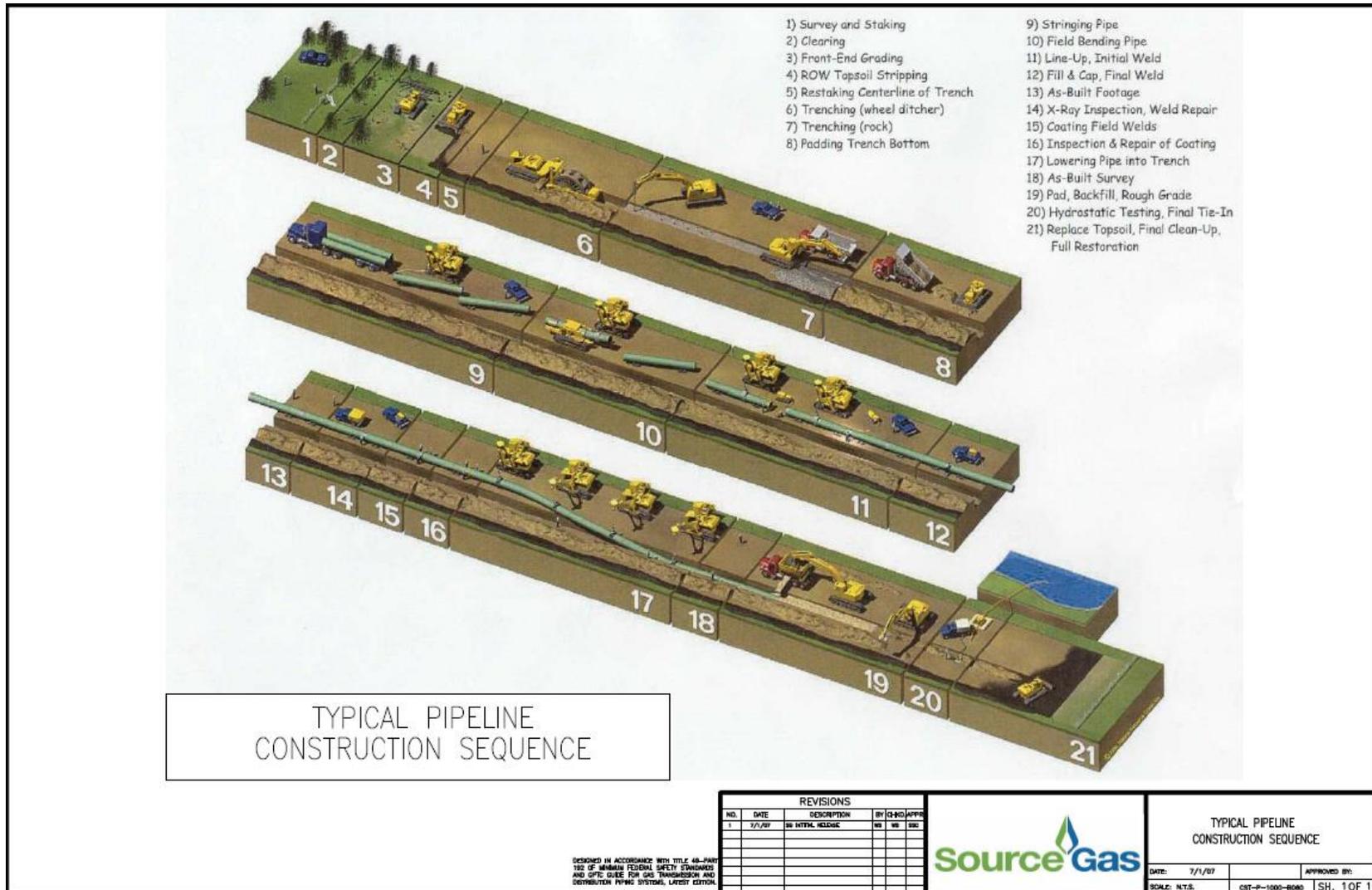


Figure 4. Typical Pipeline Construction Sequence

Portable sanitary facilities would be located at the temporary work areas and would be appropriately located to minimize the potential for discharge to storm-water conveyances and would be staked or otherwise secured to prevent blow-over, tipping by vandals, and leakage. The crew's trucks would access the project location daily. The remaining vehicles would be a one-time mobilization (in and out), then left parked on the ROW.

Table 2. Summary of Equipment Type and Days of Use

<i>Type of Equipment</i>	<i>Number</i>	<i>Days of Use</i>
Backhoe	2	35
Bending Machine	2	73
Compactor	1	19
Compressor	3	39
Dead Weight Tester	1	6
Detector Jeep	1	11
Detector Line Locator	1	13
Dozer	1	12
Excavator	5	193
Fork Lift	1	60
Front End Loader	1	14
Heater Propane Torch	1	11
Generator Plant	1	1
Generator/Trailer	1	120
Lowboy Truck	1	64
Motor Grader	1	15
Office Trailer/Tool Trailer	1	120
Portable Light Tower	1	36
Pickup - 1 Ton Crew	3	129
Pickup - 1 Ton Roustabout	1	13
Pickup - ½ Ton	1	13
Pickup - ¾ Ton	1	53
Pickup – Foreman/Project Manager	1	386
Pickup – Operator Truck with Fuel Tank	1	285
Pickup – Paintspray/Sandblast Rig	1	2
Pickup – Welding Rig	1	18
Pump	2	6
Semi-Truck	1	64
Sideboom	1	47
Skid Truck	1	6
Test Chart Recorder and Crystal Gauge	2	12
Tools and Testing Trailer	3	160
Torque Wrench	1	1

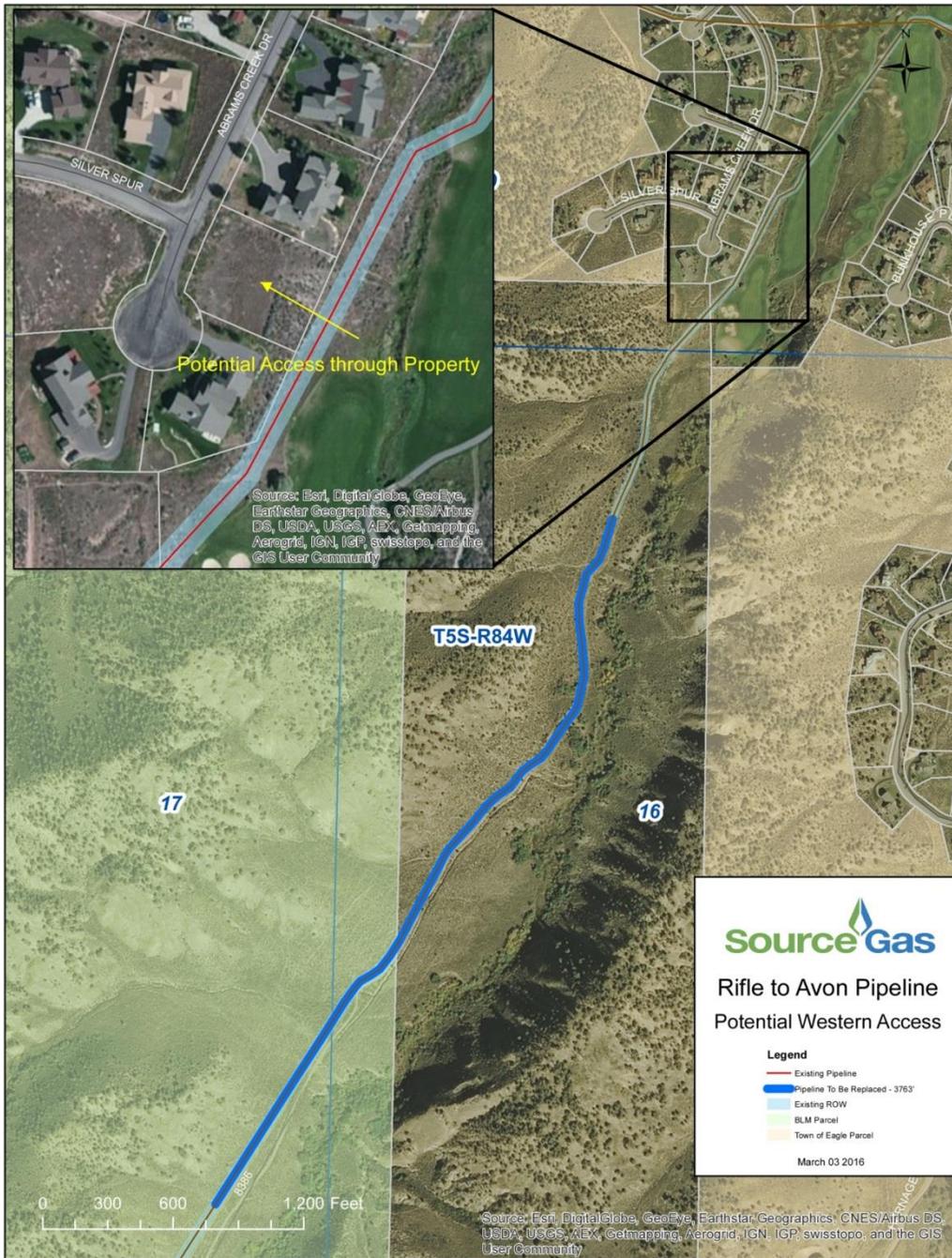


Figure 5. BLM Section 2 Access from Private Land and the Town of Eagle

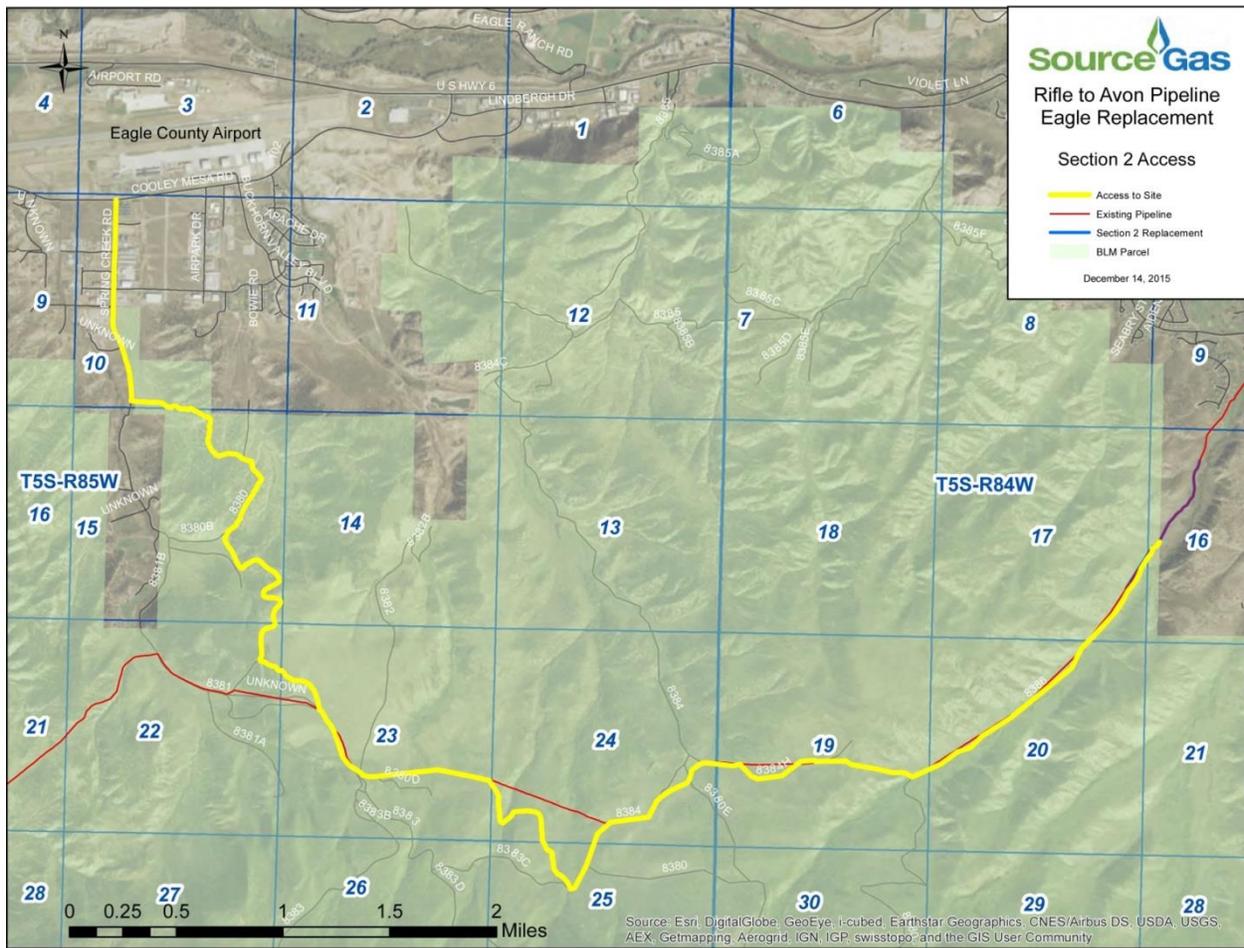


Figure 6. BLM Section 2 Access from Spring Creek Road

Stormwater Management and Groundwater

Stormwater discharges associated with construction activity would be authorized under a Colorado Department of Public Health and Environment (CDPHE) General Permit. This permit requires, among other conditions, that SourceGas prepare and implement a Stormwater Management Plan (SWMP). The SWMP would include best management practices (BMPs) to reduce the potential for the project to contribute pollutants to stormwater discharges. Replaced pipeline segments would cross an intermittent stream in Mayer Gulch. The Mayer Gulch stream channel would be crossed using open trench methods. Impacts to this stream would be mitigated by reducing the width of the crossing, as long as it is still constructible, and performing the construction during a period of low or no flow. The bed, banks, and riparian areas of the disturbed stream would be reclaimed according to U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) 12 conditions. No adverse impacts to groundwater are anticipated. If dewatering is permissible, water would be released either in a level upland area in accordance with the CDPHE General Permit or in accordance with a CDPHE Construction Dewatering Discharges Permit. Water for construction activities would be obtained from a municipal water supply and appropriate BMPs would be used. Consequently, the project is not expected to adversely impact surface- or ground-water quality.

Clearing, Grading, and Topsoil Stripping and Stockpiling

After vegetation is mowed, the construction workspace would be graded to allow safe and efficient operation of construction equipment and vehicles, and to provide space for the storage of subsoil and topsoil. Construction activity and ground disturbance would be limited to approved, staked areas.

All soil, to at least a depth of 6 inches, would be removed from the trench line and working side of the workspace and set aside as topsoil. Topsoil would be stockpiled separate from subsoil and would not be used to pad the trench or construct trench breakers. Dry drainages or washes that cross the construction workspace would not be blocked with topsoil or subsoil piles. Topsoil and subsoil would be placed outside of the ordinary high water marks of drainages. Gaps would be left at regular intervals in the windrowed topsoil and subsoil to avoid ponding and excess diversion of natural runoff during storm events.

Fugitive dust would be generated during construction. This would be minimized by wetting down the soils with potable water if necessary, minimizing traffic and limiting speeds in disturbed areas, and covering stockpiles with a tarp or other protective material where appropriate.

Trenching

Streams would be crossed perpendicularly, and construction and reclamation methods would follow USACE NWP 12 conditions.

Access would be provided for landowners, recreational users, and grazing permittees to move vehicles, equipment, and livestock, where necessary and safe. Access would be allowed around the construction site, but not through any active construction zones. Active construction zones would be closed off each night. Access to open trenches would be restricted, and the ROW would be fenced off. SourceGas would contact livestock operators and provide adequate crossing facilities as needed to ensure livestock are not prevented from reaching water sources due to the open trench.

SourceGas and their contractors would keep wildlife and livestock trails open and passable by adding soft plugs (areas where the trench is excavated and replaced with minimal compaction) during the construction phase. Soft plugs with ramps on either side would be left at all well-defined livestock and wildlife trails to allow access across the trench and provide a means of escape for livestock and wildlife that may fall into the trench.

No blasting would occur on Federal land. Crews would utilize rock-saws to excavate where rock formations are encountered during construction.

Pipe Installation

Pipe joints would be strung along the trench and welded together. When necessary, pipe would be bent to accommodate horizontal and vertical changes in direction. Pipe joints would be lined up end-to-end, clamped into position, and welded in accordance with applicable regulations and standards currently required for natural gas pipelines. All welds would be inspected using non-destructive radiographic inspection methods and visually inspected by a qualified inspector. A specialized contractor would be employed to perform this work. Any defects discovered during such inspections would be repaired or replaced as required under the applicable regulations and standards.

To help prevent corrosion, the pipe would be externally coated with fusion bonded epoxy coating prior to delivery. After welding, field joints would be coated with a tape wrap, shrinkable sleeve wrap, or field-applied fusion bonded epoxy.

Before the pipe is lowered into the trench, the pipeline coating would be visually inspected and tested with an electronic detector, and any faults or scratches discovered through the inspection would be repaired.

Cathodic Protection

To protect the integrity of the pipeline system, a cathodic protection system would be installed and would meet the requirements of PHMSA Pipeline Safety Regulations, Title 49 CFR Part 192.

Lowering-in and Padding Pipeline

Before the pipe section is lowered into the trench, an inspection would be conducted to verify that the pipe is properly fitted, the depth of the trench is correct to provide for minimum cover requirements, and the trench bottom is free of rocks and other debris that could damage the external pipe coating. Dewatering may be necessary if water accumulates in the trench. Pipe sections would be simultaneously lifted in position over the trench and lowered in place. Sifted soil fines from the excavated subsoils would provide rock-free pipeline padding and bedding. Sandbags may be used to pad the bottom of the trench instead of, or in combination with, padding with soil fines. In rocky areas, padding material or a rock shield would be used to protect the pipe.

Backfilling Pipeline

Backfilling would begin after a section of pipe has been successfully placed in the trench. Backfilling would be conducted using a bulldozer or other suitable equipment. The trench would generally be backfilled with the subsoil previously excavated from the trench except in rocky areas, where imported, appropriate fill material may be needed. Backfill would be graded and compacted (where necessary for ground stability) by tamping or walking with a wheeled or tracked vehicle. Compaction would be performed until no voids are present in the trench. Any excess excavated materials or materials unfit for backfill would either be utilized elsewhere, shallowly mounded on the trench (to help avoid trenchline settling issues), or properly disposed of in conformance with applicable laws and regulations.

Hydrostatic Pipeline Testing

The pipeline would be tested in compliance with applicable regulations and all necessary permits would be acquired. Potable water for hydrostatic testing would be acquired from the Town of Eagle or other municipalities. The municipal water would either be pumped from a hydrant or, if needed, transported to the project site by truck. Prior to the pressure tests, the water quality would be tested as a baseline for comparison of a post-pressure test. Prior to filling the pipeline for a hydrostatic test, each section of the pipeline would be cleaned by passing reinforced poly pigs through the interior of the line. The pressure tests would be conducted in two sections, one east and one west section, split along the Town of Eagle property near the Fourth of July Road. Incremental segments of the pipeline would then be filled with water, pressurized, and held for the duration of the test. For the eastern segment, 47,150 gallons of water would be pumped up the east end up to 1,800 psi.

The test pressure would be held for 8 hours and then the water would be pumped from the east side of the pipeline to the west side of the pipeline. The drying process on the east side of the pipeline would then begin while the west side is being tested. The west side would require 60,355 gallons of water to complete the pressure test. The test pressure would be held for 8 hours and once the pressure test is completed, the water would be pumped out of the pipe into 3 frac tanks that would be staged at the Fourth of July staging area.

The water would be tested to determine if it needs to be delivered to a wastewater treatment facility or is capable of being discharged onto a ground surface in accordance with hydrostatic test discharge requirements. The west side would then be dried prior to natural gas being reintroduced to the line.

Cleanup and Restoration

Cleanup and restoration would occur after the pipeline is installed and backfill activities are completed. Cleanup of the surface along the construction workspace and any temporary work areas would include removing construction debris and final grading of disturbed areas to specified contours. Erosion control measures would be installed and seeding would be performed in accordance with landowner and BLM requirements.

SourceGas would employ drill or broadcast seed methods to ensure proper seed placement. Drill seeding is preferred and would be used wherever soil characteristics and slope allow effective operation of a rangeland seed drill. Drill seeding would be performed perpendicular to the slope; seed would be placed in direct contact with the soil at an average depth of 0.5 inches, covered with soil, and firmed to eliminate air pockets around the seeds. Broadcast seeding would be employed in areas where drill seeding is unsafe or physically impossible. Seed would be applied uniformly over disturbed areas with manually operated cyclone-bucket spreaders, mechanical spreaders, blowers, or by another BLM-approved method. Broadcast application rates would be twice that of drill rates. The seed would be uniformly raked, chained, dragged, or cultipacked to incorporate seed to a sufficient seeding depth, if possible.

All irrigation ditches, cattle guards, fences, and artificial and natural livestock and wildlife water sources affected by construction activities would be returned to conditions similar to those existing prior to construction.

Livestock Barrier and Other Livestock Issues

Through prior agreements with the BLM, grazing permittees, or landowners, SourceGas would provide compensation or interim measures for any critical facilities (such as watering sites) that are disrupted during the construction or restoration process. Temporary fencing would be installed where required in accordance to pre-construction agreements with landowners, to prevent livestock entry into the construction workspace. Livestock crossovers (trench plugs), with ramps on either side of the open trench, would be placed at maximum 1-mile intervals and at visible wildlife game trails and livestock watering trails that intersect the trench line. Gaps would be left in spoil and topsoil stockpiles at all trench locations. Ramps suitable for wildlife and livestock would be installed from the bottom of the trench to the top, with a 5-foot wide open path across the trench plug. A corresponding gap in the welded pipe string would be left at each trench plug location.

Project-Related Surface Disturbances

Temporary Work Area

A 25-foot wide (0.82 acre) temporary work area (TWA) and a 0.86 acre TWA would be required for construction workspace along the existing 50-foot wide ROW and at the western-most tie-in point in Section 2. The TWAs would be used to store pipe, construction equipment, and other necessary materials.

Aboveground Appurtenances

The pipeline upgrade would include one above-ground block valve structure with a protective barricade. The block valve would be installed on BLM land at the western-most tie-in point in Section 2 within the existing ROW.

The valve structure would be painted according to BLM specifications to reduce visual impacts. If livestock or unauthorized public access to the valve structure becomes an issue, fencing would be installed to exclude livestock and discourage public access.

Pipeline markers would be placed along the pipeline route as necessary in accordance with safety requirements.

Table 3 provides a summary of the Proposed Action with the calculated areas of disturbance.

Table 3. Summary of Proposed Action

<i>ROW/TUP Number</i>	<i>Authority</i>	<i>Term (years)</i>	<i>Type</i>	<i>Length (miles)</i>	<i>Length (feet)</i>	<i>Width (feet)</i>	<i>Area (acres)</i>
<i>Natural Gas Pipeline Permanent Right-of-Way on BLM Lands</i>							
COC54361	MLA	30	12-inch buried steel natural gas pipeline	Sec. 1 0.84	Sec. 1 4,435	Sec. 1 50-85	Sec. 1 5.09-8.65
				Sec. 2 0.27	Sec. 2 1,426	Sec. 2 50	Sec. 2 1.64
			TOTAL ROW	1.11	5,861	50-85	6.73-10.29
<i>Natural Gas Pipeline Temporary Use Permit for Construction on BLM Lands</i>							
COC54361T	MLA	3	12-inch buried steel natural gas pipeline	Sec. 2 0.27	1,426	25	0.82
			<i>Subtotal</i>	0.27	1,426	25	0.82
			1 - temporary work area	--	--	--	0.86
			<i>Subtotal</i>	--	--	--	0.86
			2-track road temporary access Section 1	--	--	--	0.07
			<i>Subtotal</i>	--	--	--	0.07
TOTAL TUP	0.27	1,426	25	1.75			

2.2. ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

Original Proposed Action presented in August 2015.

The original Proposed Action, which had undergone public review and a comment period in August/September 2015, included four alternatives (See Figure 7 for Alternatives 1, 2, and 3).

- 1) Alternative 1 – Pipeline Replacement in Existing Alignment – Would consist of replacing the existing 3.74-mile section of the Rifle to Avon Pipeline in its current alignment with a 0.312-inch wall thickness (thicker-walled) pipeline in order to comply with the PHMSA Class 3 designation requirements for operating a high-pressure natural gas pipeline in moderately populated areas. This alternative would mostly avoid construction outside the previously constructed corridor and would have the fewest impacts to previously undisturbed landscapes and to BLM sensitive plants.
- 2) Alternative 2 – Proposed New Alignment – Would place the new pipeline on a combination of BLM and Town-owned lands south of the Eagle Ranch Subdivision. The pipeline would be predominantly on BLM land. Would have fewer impacts to visual resources and BLM sensitive

plant species than Alternative 3, but more impacts than Alternative 1 along the existing alignment.

- 3) Alternative 3 – Proposed New Alignment – Would place the new pipeline on a combination of BLM and Town-owned lands south of the Eagle Ranch Subdivision. The pipeline would be predominantly on the Town of Eagle and Town of Eagle Open Space. Would potentially have the most impacts to Harrington’s penstemon.
- 4) Alternative 4 – No Action Alternative – BLM would not authorize construction or other ground-disturbing activities on BLM-managed Federal land. Upgrading the pipeline through Town of Eagle Open Space and Eagle Ranch land, if it were to occur, would be determined by non-Federal parties.

Since the four alternatives were originally proposed, SourceGas, using a third-party engineering firm to assist in the process, conducted an extensive analysis of the pipeline wall thickness and the application of Federal safety standards governing the volume of gas that can flow through the pipeline. As a result, SourceGas confirmed that the pipeline segment running through the Eagle Ranch Subdivision and Eagle Ranch Golf Club meets the MAOP of 1,200 psi, and is therefore safe to operate at this pressure and does not require replacement.

The results described above forced a shift in this EA process. A decision to proceed with the existing alignment, as outlined in the Proposed Action described in this document, obviates the need to consider the original Proposed Action further.

2.3. NO ACTION ALTERNATIVE

Council on Environmental Quality regulations require the BLM to analyze the No Action Alternative in comparison to the Proposed Action. In this case, the No Action Alternative would consist of denial by the BLM of the ROW application and the TUP application submitted by SourceGas for use on Federal land; the No Action Alternative would consist of SourceGas not upgrading the existing section of the Rifle to Avon Pipeline on BLM.

The No Action Alternative would be the same as the No Action Alternative under Alternatives Considered but Not Carried Forward. BLM would not authorize construction or other ground-disturbing activities on BLM-managed Federal land. SourceGas will still need to operate the pipeline at 1,200 psi to meet current and future capacity needs of the customers it serves; however, PHMSA will not allow the current pipe to operate at 1,200 psi due to the Class 3 rating in the area and the current thickness of the pipe wall. Thus, under Federal regulations, SourceGas is required to either upgrade the pipeline to meet Class 3 regulations, or move the pipeline to a Class 1 area. Consequently, the upgrade or relocation would most likely occur on non-Federal lands determined by non-Federal parties.

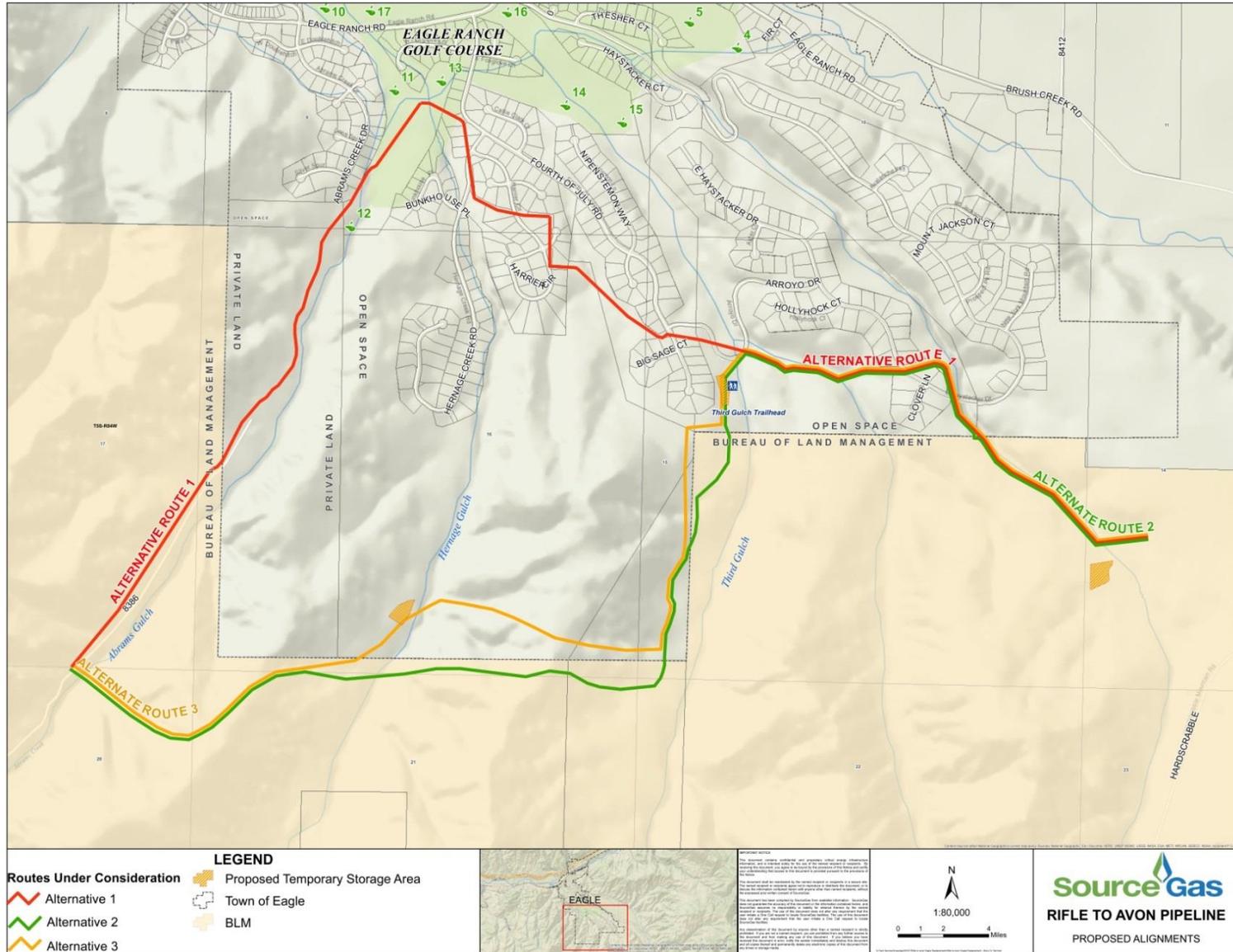


Figure 7. Alternatives Considered but not Carried Forward

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct and indirect impacts on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed. The BLM has identified 20 elements of the human environment, listed below, as potentially affected by the project. Information presented in this EA is intended to allow the decision-maker and the public to assess whether impacts of the Proposed Action would be significant under NEPA. The BLM also identified five additional components of the human environment as not present in the project area or not potentially affected. These environmental elements, also listed below, are not addressed in the EA.

Environmental Elements Present or Potentially Affected

Access and Transportation	Socioeconomics
Air Quality	Soils
Cultural Resources	Special Designations – <i>AREAS OF CRITICAL ENVIRONMENTAL CONCERN</i>
Fossil Resources	Special Status Species
Geology and Minerals	Surface-water Resources
Grazing and Rangeland Management	Vegetation
Invasive, Non-native Species	Visual Resources
Land Tenure, ROW, and Other uses	Wastes – Hazardous or Solid
Native American Concerns	Wildlife – Terrestrial and Aquatic
Noise	
Recreation	

ENVIRONMENTAL ELEMENTS NOT PRESENT (NP) OR PRESENT BUT NOT AFFECTED (NA)

Climate Change – NA	Public Health and Safety - NA
Environmental Justice – NA	Wild and Scenic Rivers – NP
Fire and Fuels - NA	Wild Horses and Burros – NP
Groundwater Resources - NA	Wilderness Study Areas – NA

Within each resource type, when applicable, definitions of the kinds of impacts are included in the evaluation of potential environmental impacts. Comparison of impacts is intended to provide an impartial assessment to help inform the decision-maker and the public. The impact analysis does not imply or assign a value or numerical ranking to impacts. Actions resulting in adverse impacts to one resource might impart a beneficial impact to other resources. In general, adverse impacts described in this chapter are considered important if they result from, or relate to, the implementation of any of the alternatives. These impacts are defined as follows:

- Direct Impacts – Resulting from the action and occurring at the same time and in the same general area.
- Indirect Impacts – Resulting from the action but occurring at a different time or location.
- Short-term Impacts – Occurring during or after the action and continuing up to 2 years. For pipelines, “short-term” refers to surface disturbance reclaimed promptly after construction.
- Long-term Impacts – Extending beyond the first 2 years.

Environmental impact analysis is based on existing data and information available from Federal and state agencies, peer-reviewed scientific literature, and relevant resource studies conducted in the project area in relation to the Proposed Action or other proposed development projects.

Standards for Public Land Health

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all Resource Management Plans (RMPs) in the State. Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, landform, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential.

Standard 4: Special status, threatened and endangered species (Federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including groundwater where applicable, located on or influenced by public land will achieve or exceed the Water Quality Standards established by the State of Colorado

3.1. ACCESS AND TRANSPORTATION

Affected Environment

The transportation network analyzed for impacts resulting from the Proposed Action includes those segments of interstate, state highways and county roads in Eagle County that serve the project area.

Table 4 shows 2014 annual average daily traffic volumes for trucks and all vehicles on segments of U.S. Highway 6 (US 6) in the project area. Traffic volumes are presented for the stretch of US 6 and I-70 at the Town of Eagle, under the assumption that service vehicles associated with the Proposed Action would originate from this area.

The Colorado Department of Transportation (CDOT) maintains I-70 and US 6. The Town of Eagle maintains town streets, and Eagle County maintains County Roads.

The Hardscrabble Area, on both BLM and Town of Eagle Open Space, has a winter closure from December 1 through April 15 to protect wintering wildlife and to avoid damage to roads, trails, and vegetation from use during wet conditions.

Table 4. Average Annual Daily Traffic on SH 6 and I-70 in the Project Area

<i>I-70 Road Segment</i>	<i>Segment Milepost</i>		<i>2014</i>	
	<i>Start</i>	<i>End</i>	<i>All Vehicles</i>	<i>Trucks</i>
On SH 6 Grand Ave NE/O 5 th St. and Brooks Ln Eagle	149.144	149.576	9,300	600
On US 6 W/O I-70 Spur Traffic Circle Eagle	149.576	149.666	16,000	710
On US 6 E/O I-70 Spur Traffic Circle Eagle	149.666	159.184	2,900	180
On I-70 SE/O I-70 Spur Eby Creek Rd Eagle	146.648	156.547	25,000	2,580
On I-70 Spur Eby Creek Rd S/O I-70 Eagle	0	0.346	17,000	970

Source: Colorado Department of Transportation (CDOT) 2014

Environmental Consequences

Proposed Action

Construction of the Proposed Action would only occur from April 16, upon approval, through November 30 because of the Hardscrabble Area winter closure.

The Proposed Action would have temporary impacts on transportation by increasing traffic volumes in and around the Town of Eagle. The potential for indirect impacts also exists, through increasing opportunities for wildlife collisions, contributions to roadway deterioration, dust creation on unpaved roads, and noise and nuisance impacts to residents of the Town of Eagle and recreational users in the project area. All impacts would be limited to the 7-month long construction phase of the project. Traffic impacts following construction would consist of routine maintenance and inspection of the pipeline by SourceGas and would be minimal compared to current and predicted levels of traffic on roadways in the project area.

No new access roads would be constructed as a part of the Proposed Action. The majority of the pipeline ROW would be accessed through the Town of Eagle. Where the pipeline deviates from direct road access, temporary construction access would be provided by driving along the ROW. After construction is complete, the pipeline would be accessed for routine maintenance and inspections via Town of Eagle roads or through the permanent ROW where necessary.

During the 7-month construction phase, project-related traffic would be approximately 55 round-trips per day. This traffic level would occur with one pipeline construction crew under mobilization moving from east to west along the Proposed Action. Upon completion of construction, project-related traffic would be negligible because it would be limited to periodic inspection and maintenance activities.

No Action Alternative

Under this alternative, the Proposed Action would not be constructed on BLM. Therefore, there would be no project-related impacts on BLM land. However, construction related traffic and associated impacts would still most likely occur in and around the Town of Eagle.

3.2. AIR QUALITY

Affected Environment

National Ambient Air Quality Standards (NAAQS) and Colorado Ambient Air Quality Standards (CAAQS) are health-based criteria for the maximum acceptable concentrations of widespread air pollutants considered harmful to public health and the environment. The U.S. Environmental Protection Agency (USEPA) has established NAAQS for six criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (less than 10 microns [μ m] in diameter [PM₁₀] and particulate matter less than 2.5 μ m in diameter [PM_{2.5}]), and sulfur dioxide (SO₂). Note that O₃ is generally not directly emitted from sources but formed in the atmosphere by chemical interactions of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight and under certain meteorological conditions. The State of Colorado has established a standard for SO₂ more stringent than the NAAQS. An area shown to exceed the NAAQS or CAAQS for a given pollutant may be designated a nonattainment area for that pollutant.

Under the Prevention of Significant Deterioration (PSD) program, regulations limit incremental emissions increases of air pollutants from certain sources to specific levels defined by the classification of air quality in an area. All areas of the U.S. are assigned a classification, which describes the degree of degradation to the existing air quality allowable under the PSD permitting rules. PSD Class I areas are areas of special national or regional natural, scenic, recreational, or historic value. Little degradation in air quality is allowed by limiting industrial growth. PSD Class II areas allow for reasonable industrial/economic expansion. Certain national parks and wilderness areas are designated as PSD Class I. Air quality in these areas is protected by allowing only slight incremental increases in pollutant concentrations. Other areas not designated as PSD Class I are classified as PSD Class II, where less stringent limits on increases in pollutant concentrations apply. In addition, the State of Colorado applies Class I SO₂ increments to certain Class II areas in the State.

The Air Pollution Control Division of the Colorado Department of Public Health and Environment (CDPHE), under its delegated authority from the EPA pursuant to the Clean Air Act (CAA) and in conformance with the Colorado State Implementation Plan, is the agency with primary responsibility for air quality regulation and enforcement in connection with industrial developments and other air pollution sources in Colorado. Unlike the conceptual “reasonable but conservative” engineering designs used in NEPA analyses, any required CDPHE-APCD air quality pre-construction permitting demonstrations are based on detailed, site-specific engineering values, which are assessed in CDPHE’s review of the permit application. Any facility developed under the Proposed Action that meets the requirements set forth under Colorado regulations would be subject to CDPHE-APCD permitting and compliance processes. Regulations and standards that limit permissible levels of air pollutant concentrations and air emissions and are relevant to the air impact analysis for the project include NAAQS, CAAQS, and PSD increments.

Monitoring of air pollutant concentrations has been conducted in the region. These monitoring sites are part of several monitoring networks overseen by State and Federal agencies, including the Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment (CDPHE), Clean Air Status and Trends Network, Interagency Monitoring of Protected Visual Environments, and National Acid Deposition Program National Trends Network.

The project area lies within an attainment area under the NAAQS and CAAQS (CDPHE 2015a). An attainment area is where ambient air pollution quantities do not exceed the NAAQS and/or CAAQS. Regional background values are below established standards, and all areas within the cumulative study area are designated as in attainment for the criteria pollutants.

The project area and surrounding areas are classified as PSD Class II. PSD Class I areas located within 100 miles of the project area are the Eagles Nest Wilderness (approximately 19 air-miles east), Flat Tops Wilderness (approximately 21 air-miles northwest), Maroon Bells – Snowmass Wilderness (approximately 28 air-miles south-southwest), West Elk Wilderness (approximately 55 air-miles southwest), Mount Zirkel Wilderness (approximately 64 air-miles north), Rocky Mountain National Park (approximately 64 air-miles northeast), Rawah Wilderness (approximately 79 air-miles north-northeast) and Black Canyon of the Gunnison National Park (approximately 85 air-miles southwest).

PSD Class II areas with a Class I SO₂ increment protection near the project area are BLM lands in the Gunnison Gorge Recreation Area (approximately 80 air-miles southwest), areas of the Black Canyon of the Gunnison National Park that are not already Class I (approximately 85 air-miles south-southwest), and Florissant Fossil Beds National Monument (approximately 91 air-miles southeast).

Environmental Consequences

Proposed Action

Over an estimated 7 months, the Proposed Action would provide temporary access via a 2-track road, replace 1.11 miles of pipeline, and grant two TWAs. As much as 12 acres of soils would be disturbed.

The Proposed Action would have a temporary negative impact to air quality. Pollutants generated during construction activities would include combustion emissions and fugitive dust (PM₁₀ and PM_{2.5}) associated with road use, transport, earthwork, and construction equipment. Short-term emissions of criteria, HAPs, and GHGs would be generated from vehicle and construction equipment exhausts.

Generation of fugitive dust as a result of construction activities and travel on unpaved access roads would be reduced by the BLM's COA for the operator to abate dust. In addition, construction activities for the pipeline would occur between the hours of 7:00 a.m. and 7:00 p.m. each day, a generally more favorable period for atmospheric dispersion due to warmer temperatures and less stable air.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be constructed. Therefore, there would be no project-related impacts on BLM land and air quality would remain at background levels. BLM management and currently permitted activities in the project area would continue, including activities associated with pipelines, access roads, recreation, and grazing.

3.3. CULTURAL RESOURCES

Affected Environment

Several intensive (Class III) cultural resource linear inventories (CRVFO# 5415-02 and 15415-05) were performed for Olsson Associates along several potential pipeline alignments for the proposed SourceGas Eagle Pipeline Upgrade in Eagle County, Colorado. Four additional large block inventories (CRVFO# 5407-4, 5405-23, 5403-2 and 5499-2) were previously conducted for other projects and covered large portions of several of the current projects proposed alternative alignments. Although several proposed alignments passed through or near several historic properties that were eligible or potentially eligible for the National Register of Historic Places (NRHP), these routes have been abandoned. The Preferred Alternative Alignment Right-of-Way APE avoids eligible or potentially eligible sites. Therefore, no "historic properties" were identified as being within the area of the Proposed Action. "Historic properties" are cultural resources that are eligible or potentially eligible for inclusion on the NRHP. Isolated finds are by definition not eligible to the NRHP.

Environmental Consequences

Proposed Action

The implementation of the Proposed Action would have no direct impacts to known “historic properties,” as none has been identified in the project’s APE. As mentioned above, the APE consists of the physical extent of the preferred pipeline alignment. The inventory identified no eligible sites within the project’s preferred pipeline alignment APE. Consequently, the BLM made a determination of “**No Historic Properties Affected.**” This determination was made in accordance with the 2001 revised regulations [36 CFR 800.4(d)(1)] for Section 106 of the National Historic Preservation Act (NHPA 16U.S.C 470f), the BLM/State Historic Preservation Officer (SHPO) Programmatic Agreement (2012) and Colorado Protocol (2014)]. Cultural resource types typically found in the surrounding areas include prehistoric open camps, lithic scatters, historic ditches, historic structures, historic trash scatters/dumps and isolated prehistoric and historic finds.

Although no known eligible sites are within the areas of potential effect, indirect, long-term cumulative impacts from increased access and the presence of project personnel could result in a range of impacts to known and 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 would be attached to the APDs as a COA (see Appendix). The importance of these COAs would be stressed to the operator and their contractors, including informing them of their responsibilities to protect and report any cultural resources encountered during construction operations.

No Action Alternative

The No Action Alternative would be the same as the No Action Alternative under Alternatives Considered but Not Carried Forward. BLM would not authorize construction or other ground-disturbing activities on BLM-managed Federal land. SourceGas will still need to operate the pipeline at 1,200 psi to meet current and future capacity needs of the customers it serves; however, PHMSA will not allow the current pipe to operate at 1,200 psi due to the Class 3 rating in the area and the current thickness of the pipe wall. Thus, under Federal regulations, SourceGas is required to either upgrade the pipeline to meet Class 3 regulations, or move the pipeline to a Class 1 area. Consequently, the upgrade or relocation would most likely occur on non-Federal lands determined by non-Federal parties.

Impacts to cultural resources from the No Action Alternative would be similar to those for the Proposed Action due to most impacts taking place on previously disturbed lands and lands with a lower potential for intact cultural resources.

3.4. FOSSIL RESOURCES

Affected Environment

The predominant bedrock formation present at or near the surface within the proximity of the proposed pipeline is the Middle Pennsylvanian Eagle Valley Evaporite. The Eagle Valley Evaporite covers an area of Northwest Colorado, including Eagle County, and consists of deposits of gypsum and anhydrite, as well as halite and potash salts, and is intermingled with layers of siltstone, shale, and limestone (Mallory 1971). The Eagle Valley Evaporite is a Potential Fossil Yield Class (PFYC) 2, indicating low potential for fossils of scientific significance.

In addition to the EVE, localized deposits of Quaternary gravels and alluvium, wind-blown loess and colluvium are interspersed throughout this area. Occurring in varying thicknesses, these Quaternary sediments are considered PFYC 2, defined as having a low probability of fossil occurrence.

Environmental Consequences

Proposed Action

In areas of higher paleontological significance, construction activities along a pipeline have the potential to adversely affect important fossils that may be present in underlying bedrock. The Proposed Action is located in areas with PFYC 2 designation, indicating the likelihood of encountering any paleontological resources is low. In addition, alluvium, colluvium, and other unconsolidated sediments are much less likely than bedrock to contain well-preserved fossils.

An examination of the BLM paleontology database indicates no known fossil occurrences within a 1-mile radius of the Proposed Action. In the event paleontological resources are encountered, the standard paleontological COA (Appendix A) would apply.

No Action Alternative

Under the No Action Alternative, SourceGas would use another route, avoiding BLM land. A very large portion of area around the proposed pipeline, including previous proposed routes, consists of the Eagle Valley Evaporite and Quaternary deposits. Given the PFYC Class 2 for this area, project-related impacts to fossil resources on BLM land would not likely occur.

3.5. GEOLOGY AND MINERALS

Affected Environment

The Eagle Valley Evaporite and Eagle Valley Formation are the dominant formations in the project area. During the middle Paleozoic, a large interior seaway occupied a significant portion of Northwestern Colorado, allowing for deposits of limestone and dolomite in substantial thickness (Tweto 1949). During the Pennsylvanian Period, much tectonic activity associated with the Uncompahgre Uplift and ancestral Rocky Mountains created the Eagle Basin (Mallory 1958).

During the Laramide Orogeny (uplift of modern Rocky Mountains approximately 80 million years ago) much of the Eagle Basin was destroyed by the Sawatch Range and White River Uplift, with remnants residing in tectonic basins in the region (Quigley 1965). Near the town of Eagle, the geology consists of shaly anhydrite, black and gray shale, dark siltstone, siltstone, and probable halite (Mallory 1971). Localized surface deposits of Quaternary age are interspersed throughout the area.

Environmental Consequences

Proposed Action

Deposits of gypsum and anhydrite of commercial value are found near the project area, with the thickest and chemically pure deposits located near Eagle and Gypsum (Mallory 1971). There are no mines or quarries located near the proposed action, and impacts to existing deposits would be negligible.

Pipelines are susceptible to land subsidence. The Eagle Valley Evaporite consists of minerals that are readily dissolved. Development on evaporitic bedrock can lead to dissolution of the underlying bedrock and subsequent sinkholes in the region. Another issue with evaporitic rock is that the saline deposits will start to deform and behave “plastically,” leading to deformation and land subsidence (White 2012).

A strain on a pipeline may not cause immediate failure of the pipeline, but could cause problems with pipelines using gravity-driven flow. Pressurized pipelines are less susceptible to blockage. However a larger subsidence event such as a sinkhole could still damage the pipeline integrity (Galloway et al 2008). The risk of subsidence affecting a buried pipeline would be mitigated by proper construction techniques during excavation, trenching, and placement.

No Action Alternative

Under the No Action Alternative, SourceGas would likely find an alternate route that avoids crossing BLM land. Impacts to geology would be similar to that of the proposed action, but would not affect Federal lands.

3.6. GRAZING AND RANGELAND MANAGEMENT

Affected Environment

The portions of the proposed action alternatives occurring on BLM-managed lands coincide with two BLM livestock grazing allotments: the West Hardscrabble Com and E. Hardscrabble allotments. The two grazing allotments total 24,494 acres, of which 12.04 acres are in the project area. Table 5 provides the size, animal unit months (AUMs), and period of use for the two grazing allotments the proposed action alternatives pass through. All of these allotments are used to graze and/or trail cattle or sheep. The BLM grazing allotments encompass both public and private lands, but only public lands are included in determining active AUMs (BLM 2015).

Table 5. BLM Cattle Grazing Allotments Coinciding with the Project Area

<i>Allotment</i>	<i>Total Allotment Acreage</i>	<i>AUMs</i>	<i>Period of Use</i>
West Hardscrabble Common (08504)	16,277	708	5/25 – 6/25
East Hardscrabble (08502)	7,995	552	5/15 – 6/25*
*The period of use on East Hardscrabble is flexible and may be in the spring or fall.			

Several range improvements on grazing allotments have been established in the project area. These include fences, stock ponds, spring developments, cattle trails, cattle guards, pipelines, and vegetation treatments.

Environmental Consequences

Proposed Action

Impacts to grazing resources under the action alternatives would take place mostly in the form of temporary forage removal across the two grazing allotments. BLM-permitted cattle grazing would continue during the construction and operation of the action alternatives.

It is anticipated that the level of impacts from implementation of the action alternatives would not require the adjustment of stocking rates. The level of forage utilization would be monitored on affected allotments and, if necessary, adjustments in livestock use would be made to protect land health. An increase in human activity related to construction and maintenance of the project could cause cattle to move away from locations where construction is taking place. The negative impact that an increase in human activity would have on grazing livestock would be expected to be minor.

Effects of increased human activity and construction equipment could also increase the introduction and spread of noxious weeds and the subsequent degradation of rangeland health. In some areas, temporary fencing may be erected to preclude livestock grazing while sites reclaim and then removed upon successful reclamation. See Section 3.8 Invasive Non-Native Plant Species for a detailed discussion of the effects of these plants on the project and of mitigation measures related to the project.

Removal of allotment fences and cattle guards during pipeline construction could allow cattle to escape their pastures and drift onto other pastures and/or allotments. The open trench could present a hazard to livestock and limit movement within the allotment. BMPs (including constructing trenches with a natural egress ramp in the trench) and COAs (including repairing or replacing any range improvements impacted by construction as required in the Standard COAs) are designed to mitigate impacts to allotments and/or cattle.

In addition to the loss of forage, increased vehicle traffic during construction and maintenance of the proposed pipeline could increase the risk of injury or death to grazing cattle in the project area but would be mitigated by proposed traffic reduction BMPs such as carpooling and limiting driving speeds. In accordance with the BLM CRVFO Standard COAs, damage to range improvements (fences, gates, reservoirs, pipelines, etc.) would be avoided. However if range improvements were temporarily impacted or inadvertently damaged, SourceGas would repair or replace them. The temporary nature of the construction process as well as COAs (including long-term noxious weed control) would reduce potential impacts to grazing and rangeland management, and overall impacts would be minimal.

No Action Alternative

Under the No Action Alternative, the pipeline would not be upgraded on BLM. Therefore, there would be no project-related impacts on BLM land and there would be no alteration of the existing grazing management or rangeland conditions.

3.7. INVASIVE NON-NATIVE PLANTS

Affected Environment

Plants designated as noxious weeds by the Colorado Department of Agriculture are regulated under the Colorado Noxious Weed Act, Title 35, Article 5.5. The Colorado noxious weed list is broken down into tiered levels based on existing infestation levels and a tiered approach to weed management. List A weeds are targeted for eradication, List B species are targeted for containment to limit spread, and List C species are targeted for integrated weed management including biocontrols, additional education resources, and research.

Botany surveys conducted in 2015 identified state-listed noxious weeds within the Eagle Pipeline Upgrade project area, as well as other non-native plant species which can also have detrimental impacts on native plant communities (Olsson Associates 2016). The proposed project would involve replacement of 1.14 miles of buried natural gas pipeline paralleling on BLM land. The pipeline would be replaced within the existing pipeline corridor, but an addition 25 feet of new disturbance would take place paralleling the existing pipeline right-of-way. Additional disturbance would occur in temporary work areas.

Noxious weeds and other invasive nonnatives are common throughout the project area, particularly along existing roads and trails, and within the existing pipeline right-of-way. These include five State List B species: Canada thistle (*Cirsium arvense*), hoary cress (*Cardaria draba*), houndstongue (*Cynoglossum officinale*), musk thistle (*Carduus nutans*), and plumeless thistle (*Carduus acanthoides*).

Two State List C noxious weed species are also present and widely scattered in and near previously disturbed areas throughout the project area. These are cheatgrass (*Bromus tectorum*) and common mullein (*Verbascum thapsus*). One small occurrence of the List C noxious weed, redstem filaree (*Erodium cicutarium*), is also present on adjacent City of Eagle property along the pipeline corridor.

In addition to these noxious weeds are a number of other undesirable non-native plant species, primarily in association with previously disturbed areas. These include black medic (*Medicago lupulina*), clasping pepperweed (*Lepidium perfoliatum*), common salsify (*Tragopogon dubius*), curvseed butterwort (*Ceratocephala testiculata*), dandelion (*Taraxacum officinale*), flixweed (*Descurainia sophia*), Japanese brome (*Bromus arvensis*), pale madwort (*Alyssum alyssoides*), and purple salsify (*Tragopogon porrifolius*).

Environmental Consequences

Proposed Action

Under the Proposed Action, a total of 12.04 acres would be disturbed, of which 10.29 acres would be located within the previously disturbed pipeline right-of-way and 1.68 acres would be new disturbance. Reclamation of disturbed areas would occur following project completion. Reclamation would consist of seeding in accordance with the reclamation COAs presented in Appendix A. Reclamation seeding on BLM lands would be restricted to native plant species.

Surface-disturbing activities, such as those proposed for this project, provide a niche for invasion and establishment of non-native plant species particularly when these species are already present in the surrounding area. The mechanisms for this invasion and establishment are multi-fold. Soil disturbance and removal of native vegetation creates niches for invasive species (Parendes and Jones 2000). Linear disturbances, such as roads, provide corridors of connected habitat along which invasive plants can easily spread (Gelbard and Belnap 2003). Construction equipment and heavy vehicles often transport invasive plant seeds alone or in dirt clods on tires or the vehicle undercarriage (Schmidt 1989, Zwaenepoel et. al. 2006).

Noxious weeds and other invasive species are well adapted to colonize and dominate in disturbed ground. They generally do not require well-developed soils, can out-compete native species for resources, produce prodigious quantities of seeds, and have seeds which can survive for many years or even decades within the soil. When weeds establish on a site, they can also significantly alter the composition of the soil microbial community of bacteria and fungi, making it increasingly more difficult over time for native species to reestablish on the site (Hierro et. al. 2006, Reinhart and Callaway 2006, Vinton and Goergen 2006, Jordan et. al. 2008, Vogelsgang and Bever 2009). Some weed species produce defensive chemicals which can impede germination of native plant seeds, as well as germination of spores for mycorrhizal fungi species upon which most perennial native plants are dependent (Bainard et. al. 2009). Due to the quantity and longevity of weed seeds and the effects of weeds on the soil, once these invasive species have established on a site they can be extremely difficult to eliminate.

The proposed project area has a history of disturbance associated with previous pipeline installation, recreational use, and livestock grazing. As a result, noxious weeds and other problematic nonnative species are widespread in disturbed sites throughout the project area, particularly along existing roads and the existing pipeline corridor where the proposed project would occur. With new project disturbances, the potential for increased establishment of these undesirable plants following construction activities is very high. Movement of soil by construction equipment could be expected to spread weed seeds within the project area, and the total area of disturbed habitat would increase.

Vehicles and equipment could also transport new noxious weed species to the site, where they would have disturbed habitats in which to establish.

To mitigate the risk from invasive species, the general weed control COA would be attached to ROW Grants to require periodic monitoring and weed control practices to ensure that noxious weeds are controlled (Appendix A). Establishment of native plant species is also crucial in preventing invasive non-native plant species establishment and spread. Therefore, the general reclamation COAs would also be attached to ROW Grants to require seeding and monitoring of reclamation seeding results (Appendix A).

No Action Alternative

Under the No Action Alternative, the pipeline would not be replaced on BLM lands, and there would be no alteration of the existing noxious weed and non-native invasive plant infestation situation on BLM lands. New pipeline construction on private lands would likely occur, and invasive species similar to those described above would be expected to occur at whatever alternative pipeline location is chosen.

3.8. LAND TENURE, RIGHTS OF WAYS, AND OTHER USES

Affected Environment

The SourceGas Pipeline Upgrade would cross approximately 1.11 miles of BLM-administered public lands. The only other authorized ROW in the project vicinity is COC 3911A (See Table 6), which is a 6-inch natural gas pipeline that runs parallel to proposed action in Section 1.

Table 6. Existing Realty Authorizations in Project Area

<i>Serial Number</i>	<i>Company</i>	<i>ROW</i>	<i>Legal Description</i>	<i>Grant Issued</i>
<i>COC 003911A</i>	<i>Rocky Mountain Natural Gas</i>	<i>6-inch Natural Gas Pipeline (3.2-miles long, 35-foot-wide ROW)</i>	<i>Sixth Principal Meridian, Colorado T. 5 S., R. 84 W., sec. 13, tract 68; sec. 14, lots 5 and 6, N1/2SW1/4; sec. 15, lot 12 and NE1/4SE1/4.</i>	<i>8/31/1982</i>

On February 12, 2016 Black Hills Energy purchased SourceGas and immediately began operating under the Black Hills Energy name.

Environmental Consequences

Proposed Action

The recent acquisition of SourceGas by Black Hills Energy would require an assignment, which is a transfer process where a ROW grant holder (assignor) transfers their interest in their grant to another party (assignee).

The Proposed Action would require an amendment to the existing authorized permanent ROW and a short-term ROW grant from the BLM for the temporary work areas outside of the authorized ROW consistent with the COAs presented in Appendix A. These COAs are intended to minimize potential impacts to existing ROW holders, other resources and resource users.

The COAs would be attached as stipulations to the ROWs for construction and operation of the natural gas pipeline. These would require the operator to obtain agreements with existing ROW holders and other authorized users prior to surface disturbance and construction of the pipeline. In addition, the operator would be required to conduct a pre-construction meeting with its staff, contractors, and the BLM to review the COAs.

No Action Alternative

Under this alternative, the Proposed Action would not be constructed on BLM. However, the ROW transfer from SourceGas to Black Hills Energy would still be required.

3.9. NATIVE AMERICAN CONCERNS

Affected Environment

The proposed SourceGas Eagle Pipeline Upgrade Project is located within a larger area identified by the Ute Tribes as part of their ancestral homeland. Several cultural resource inventories (see section on Cultural Resources) were conducted to determine if there were any areas that might be culturally sensitive to Native Americans. Although numerous cultural resources were identified in this and prior inventories; no historic properties are currently known to be located in the area of potential effect within the projects Preferred Alternative Alignment.

Environmental Consequences

Proposed Action

At present, no Native American concerns are known within the project area and none were identified during the inventories. The proposed SourceGas Eagle Pipeline Upgrade Project is located within a larger area identified by the Ute Tribes as part of their ancestral homeland. Several cultural resource inventories (see the section on Cultural Resources) was conducted specifically for this project to determine if there were any areas that might be culturally sensitive to Native Americans. No areas were identified during the inventories and none are currently known by the CRVFO within the proposed SourceGas Eagle Pipeline Upgrade Project area. If new data are identified or 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 at the site could indirectly impact previously unidentified Native American resources ranging from illegal collection to vandalism.

The 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. SourceGas 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 ROW Agreement (see Appendix).

The importance of these COAs should be stressed to the operator and its contractors, including informing them of their responsibilities to protect and report any cultural resources encountered. The operator and its contractors would be made aware of the requirements under the NAGPRA.

No Action Alternative

The No Action Alternative would be the same as the No Action Alternative under Alternatives Considered but Not Carried Forward. BLM would not authorize construction or other ground-disturbing activities on BLM-managed Federal land. SourceGas will still need to operate the pipeline at 1,200 psi to meet current and future capacity needs of the customers it serves; however, PHMSA will not allow the current pipe to operate at 1,200 psi due to the Class 3 rating in the area and the current thickness of the pipe wall. Thus, under Federal regulations, SourceGas is required to either upgrade the pipeline to meet Class 3 regulations, or move the pipeline to a Class 1 area. Consequently, the upgrade or relocation would most likely occur on non-Federal lands determined by non-Federal parties.

Impacts to cultural resources from the No Action Alternative would be similar to those for the Proposed Action due to most impacts taking place on previously disturbed lands and lands with a lower potential for intact cultural resources.

3.10. NOISE

Affected Environment

The project area is located outside the southern edge of the Town of Eagle on the lower, northern slopes of the Seven Hermit Hills and near the Eagle Ranch Subdivision (Figure 1). Noise levels in the area are presently created by traffic on private, County, and BLM roads and from residential, recreational, and grazing activities.

Noise is generally described as unwanted sound and may be measured as sound pressure in A-weighted 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. A dBA scale accounts for the lesser sensitivity of the human ear to low and high frequencies, which are in turn weighted less on the dBA scale than on the standard dB scale.

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 (USEPA 1974, Harris 1991). As a basis for comparison, the noise level is 60 dBA during a normal conversation between two people standing 5 feet apart.

Environmental Consequences

Proposed Action

The Proposed Action would temporarily increase local noise levels during the seven months required to complete the project. Noise levels 50 feet away from typical construction equipment used to construct pipelines and roads, including upgrading of existing roads, are provided in Table 7. Also shown are distances for noise to attenuate to background levels for soft surfaces (roughened ground and vegetated surfaces) and hard surfaces (bare ground and rock).

Table 7. 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>
General Used Equipment			
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	85	65	59
Road Scraper	87	67	61
Tractor, Vibrator/Roller	80	60	54
Rock Excavation Equipment			
Mounted Impact Hammer	90	70	66
Auger Drill Rig	84	64	60
Rock Drill	81	61	55

Sources: La Plata County (2002), WSDOT (2011)

Construction of the pipeline would occur for seven months and would continually shift in location along the proposed ROW. As seen in Table 7, noise from typical construction machinery at a distance of 50 feet ranges from around 80 dBA for a tractor to 90 dBA where rock excavation is required. Regulations (CRS 25-12-103) pursuant to Colorado’s Noise Abatement Law establish limits on noise in residential/ agricultural/ rural, light industrial, and industrial land use zones (Table 8).

Table 8. State of Colorado Maximum Permissible Noise Levels

<i>Land Use Zone</i>	<i>Maximum Permissible Noise Level (dBA)</i>	
	<i>7:00 am to 7:00 pm</i>	<i>7:00 pm to 7:00 am</i>
Residential/Agricultural/Rural	55	50
Light Industrial	70	65
Industrial	80	75

* As measured at a distance of 350 feet from the source (CRS 25-12-101 et seq.)

Although some noise sources are likely to be elevated above the standard at 350 feet, construction would progress across the landscape and represent a disruption in a given area for a period of days or weeks. To reduce noise impacts to area residents and other users of the project vicinity, much of the proposed pipeline alignment is behind ridges and within gulches. In addition, the BLM would require that construction be limited to daytime hours (7:00 am to 7:00 pm), when background levels are generally higher and sensitivity to sound is less – as reflected by the higher Colorado standards in Table 8.

Upon completion and operation of the proposed pipelines, noise sources and levels would return to those of pre-construction.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be constructed. Therefore, project-related increases in noise levels on BLM land would not occur. BLM management and currently permitted activities in the project area would continue, including activities associated with pipelines, access roads, recreation, and grazing.

3.11. RECREATION

Affected Environment

Recreation Objectives. BLM lands in the Hardscrabble area for the western portion (Section 2) of the pipeline upgrade are designated as a Special Recreation Management Area (SRMA). Within BLM, SRMAs are managed under a framework that focuses on the positive outcomes (experiences and benefits) of engaging in recreational activities. The Hardscrabble-East Eagle SRMA is subdivided into recreation management zones (RMZ) to further delineate specific recreation opportunities. The recreation objectives are established in the CRVFO ROD and Approved RMP (BLM 2015), specifies to manage the Hardscrabble SRMA for a specific set of activities, experiences and benefits. The targeted activities in the RMZ are mountain biking for cross-country (XC) type bikes and hiking. Experiences include: 1) enjoying frequent access to outdoor physical activity, 2) developing your skills and abilities, 3) for the challenge or sport, and 4) enjoying the areas wildlife, scenery, views and aesthetics. Benefits include: 1) improved physical fitness/ better health maintenance, 2) heightened sense of satisfaction with our community and 3) maintain local tourism revenue.

Recreation Setting Characteristics (RSCs). RSCs are a description of the physical, social and operational characteristics that define an SRMA's qualities and condition. Recreation settings are described based on a spectrum of possible recreation settings ranging from a primitive classification to an urban classification. Three recreation setting components and their RSCs are considered under the classifications: a) the physical qualities of nature and the landscape defined by remoteness, naturalness and facilities; b) the social qualities associated with use defined by group size, contacts and evidence of use; and c) the operational conditions to manage recreation use defined by type of access, visitor services and management controls. Monitoring and evaluation may cause recreation managers to adjust the RSCs over the life of the plan to meet recreation objectives (BLM 2014).

Appendix F of the CRVFO Approved ROD and RMP Record of Decision and Approved Resource Management Plan (BLM 2015) identified the desired RSCs for The Hardscrabble-East Eagle SRMA in RMZ 1. These are summarized in Table 9.

NSO Stipulations. CRVFO-NSO-25 prohibits surface use, surface occupancy, and surface-disturbing activities in the SRMA. However, because this is an existing ROW that is being upgraded, the NSO would not be applied.

Outside of the SRMA, recreation occurs on the routes contained in the Myer Gulch ACEC. While this area is undesignated for recreation, it still provides important close to home recreation opportunities on the trail system that is integrated into the Town of Eagle's trail system and the Hardscrabble SRMA.

Multiple special recreation permits (SRP) are issued throughout the spring, summer, and fall. The events are all trail based on routes within the SRMA and ACEC. Most of the events would occur April through June 2016 and include:

Table 9. Desired Recreation Setting Characteristics.

<i>Physical RSCs</i>	<i>Description</i>
Remoteness	Overtime class acreages may change but all classes still exist.
Naturalness	The existing, but varied, level of naturalness is maintained. Any new non-recreational land uses have a low level of contrast with the landscape and are not visually obvious from recreation facilities and trails.
Visitor Facilities	Single-track trail systems are expanded, maintained, re-routed and signed.
Social RSCs	Description
Contacts	Participants encounter a primary use season (mid-April through October) average of up to 29 encounters per day within areas classified as middle country.
Group Size	Participants encounter a primary use season (Mid-April through October) average of up to 9 people per group away from trailheads
Evidence of Use	Localized areas of vegetation alteration and wear are found near along trails, at trailheads and at campsites. Inappropriate recreation use is rehabilitated.
Operational RSCs	Description
Public Access	Mountain bike use is predominant in the RMZ and motorized use is limited to designated motorized routes.
Visitor Services and Information	Informational materials describe the SRMA and recreation opportunities. BLM staff/volunteers are periodically present at recreation sites but occasionally present away from recreation sites.
Management Controls and Regulations	Adequate but not overly restrictive level of visitor and land use restrictions initially in place to protect RSCs including winter closures for the benefit of wildlife. Restrictions and ethics are posted at trailheads. Directional signage is installed on trails.

- Trail Jam: April 15, 2016 (promotional event that will last 2-3 weeks)
 - Abrams Gulch/Ridge; Mayer Gulch, all Town of Eagle and Eagle Ranch Loop trails
- Colorado High School League Coaches Summit: April 22-24, 2015 (will utilize Eagle Ranch trails during their event)
 - Mayer Gulch, Eagle Ranch loops
- Vail Recreation District Mountain Bike Races: May 25 and June 22, 2016
 - Mayer Gulch, Arroyo Drive Trailhead, Arroyo Drive (excess parking)
- Eagle Outside Festival: June 3-4, 2016
 - All Eagle Ranch loop trails
- GoPro Mountain Games Enduro: June 9-10, 2016
 - Abrams Gulch/Abrams Ridge; Mayer Gulch; Horton St.
- National Interscholastic Cycling Association Annual Conference: June 21-26, 2016
 - All Eagle Ranch loop trails

Environmental Consequences

Proposed Action

Recreation Objective. Overall the Proposed Action would have short term impacts to the SRMA recreation objective. The main recreation activities of biking and hiking on single-track trails, and the

SRP events would be able to continue throughout the construction process. These impacts would be temporary and mitigation measures applied as COAs presented in Appendix A would minimize the potential long-term impacts to recreational users.

Recreation Setting Characteristics (RSCs). The Proposed Action is not consistent with the desired physical, social and operational RSCs identified in Appendix F of the Colorado River Valley Record of Decision and Approved Resource Management Plan (BLM 2015) in the short-term. Physically, the existing level of naturalness would be lower during construction and during reclamation. Socially, there would be a temporary increase in contacts and groups size during construction. Operationally mountain bike use would be predominant within the SRMA, but trail users would encounter additional motorized use during construction. These impacts would be temporary and mitigation measures applied as COAs presented in Appendix A would minimize the potential long-term impacts to recreational users.

No Action Alternative

Under this alternative, the Proposed Action would not be constructed on BLM. Therefore, there would be no project-related impacts on BLM land. However, impacts to recreational users on the Town of Eagle Open Space and Eagle Ranch would most likely still occur.

3.12. SOCIOECONOMICS

Affected Environment

The project area is located in Eagle County, and within the Town of Eagle; all access to the project area is projected to be from Eagle County and the Town of Eagle as well. The labor and equipment for construction and operation of the proposed pipeline would utilize local contractors to the extent feasible, but additional regional or national construction companies may be consulted for construction services.

Demographics. In 2013, the U.S. Census Bureau estimated the population of Eagle County at 52,151. The county seat of Eagle County is the Town of Eagle, which has a population of 6,508. Eagle County's minority population was estimated at 33.7% (including Latinos) in 2013 (U.S. Census Bureau 2013).

Between 2000 and 2013, the population of Eagle County increased by 25.88%, while the population of the State of Colorado as a whole has increased by 22.57% (Colorado Department of Labor and Employment 2015). The population growth for Eagle County over this 13-year period is in line with, and only slightly higher than, the State of Colorado's and reflects the need for greater natural gas transmission and distribution for populations living in the areas served by the Rifle to Avon Pipeline. The median age for residents of Eagle County is 34.7 years.

Income, Labor, and Employment. The number of jobs in Eagle County in July 2015 was estimated at 32,396 (Colorado Department of Labor and Employment 2015). Eagle County's unemployment rate is 5.0%, which is slightly higher than the state average of 4.3% (U.S. Census Bureau 2013). For 2009-2013, median household income in Eagle County was \$74,456; this median income is well above the state median household income of \$58,433. The percentage of people living below the poverty line is 10.9%; this is slightly lower than the percentage of people living below the poverty line in the State of Colorado, which is 13.2% (U.S. Census Bureau 2013). Principal economic sectors in Eagle County include arts, entertainment, recreation, and accommodation and food services (25.3%); educational services and healthcare and social assistance (13.2%); professional, scientific, and management and administrative and waste management services (12.3%); and finally construction, which is also 12.3% (U.S. Census Bureau 2013).

Recreation-Based Employment. Recreation-based tourism, including skiing, golfing, snowboarding, hiking, hunting, and other outdoor activities are prevalent throughout Eagle County and contributes to employment in the project area. The travel industry is not represented by a single industrial sector, but it includes businesses in several industries, primarily in the arts, entertainment, recreation, accommodation and food services. According to a 2015 study commissioned by the Colorado Tourism Office, the total economic impacts of travel spending by overnight visitors in 2014 were \$951.9 million in Eagle County. This spending supported 7,051 jobs in Eagle County and created \$37.1 million in local taxes and \$23.3 million in state taxes (Dean Runyan Associates, 2015).

Housing. According to the 2013 American Community Survey, Eagle County had a total of 31,253 housing units with a rental vacancy rate of 9.3%. There are 1,695 mobile homes in Eagle County, and the median rental rate is \$1,196. The Town of Eagle has 2,497 housing units and a 27.1% rental vacancy rate. Additionally, the town has 110 mobile homes, and the median rental rate is \$1,280. The town of Gypsum is approximately 7 miles from the project area and could provide additional housing opportunities for workers in the project area; it has 2,193 housing units, a rental vacancy rate of 3.8%, and a median rental rate of \$1,043. Short-term housing accommodations, closest to the project area, are in the Town of Eagle. An internet search of lodging accommodations found five motels or hotels in Eagle.

Public Safety. Medical services in the project area include the Eagle Healthcare Center, located in the Town of Eagle and part of the Vail Valley Medical Center, which has other locations in Vail, Edwards, Avon, Beaver Creek, and Gypsum. The Vail Valley Hospital is the nearest emergency care facility and is located approximately 24 miles from the Town of Eagle. The Vail Valley Hospital offers emergency services, internal medicine, wound care, imaging, and laboratory services.

The Greater Eagle Fire Protection District, located in the Town of Eagle, provides fire protection services to the towns of Eagle (and the project area), Wolcott, Fulford, Bond, McCoy, and State Bridge. The District provides fire, EMS, haz-mat, and rescue services (Town of Eagle 2015).

The Eagle County Sheriff's Department is located in the Town of Eagle and provides first-call police services in the project area and the county as a whole.

Environmental Justice. Executive Order 12898 established a requirement for an environmental justice review on all Federal projects. The environmental analysis is to include identification of disproportionately high and adverse human health or environmental effects on minority or low-income populations. The minority population of note in Eagle County is the Latino population (30%) as previously described in the county demographics. The percentage of minority populations, and in particular Hispanic or Latino populations, in Eagle County is slightly higher than the percentage of Hispanic or Latino population in the State of Colorado (20.8%).

More specifically, the percentage of Hispanic or Latino populations in the Town of Eagle (which is directly in the project area) is 20.3%, a level similar to the statewide percentage (U.S. Census Bureau 2013). The percentage of minority populations in the project area does not represent a significant departure from the statewide percentage. Populations are described as "low-income" on the basis of participation in county assistance programs that are based on a Federally determined poverty threshold. The percentage of people living below the poverty line in Eagle County is lower than the percentage of people living below the poverty line in the State of Colorado.

Environmental Consequences

Proposed Action

Because the Proposed Action would be limited in duration, the likelihood is that most of the labor and equipment used would be drawn from outside sources, although existing local sources would be utilized to the extent feasible. Because this project is relatively small and because sufficient capacity is expected to exist within the current workforce in neighboring counties, this project is not anticipated to result in the creation of new jobs in this sector. Daily staffing on the project and construction is anticipated to last 7 months, and this project is anticipated to use 25 construction workers. This means that little or no change would be produced in the size of the local workforce or in the local population; the employment of construction workers outside of the local workforce is required and would result in a minimal and temporary influx in the local populations.

Demographics. SourceGas would utilize local contractors to the extent feasible; additional regional or national construction companies would be consulted for construction services if those services are not available within the communities near the project area. The workforce needed to construct a pipeline is minimal (10 to 20 personnel) and temporary (7 months); operation of the pipeline would not require an additional permanent workforce. Consequently, the construction workforce for the Proposed Action would not be expected to impact regional population trends.

Income, Labor, and Employment. Direct employment benefits of the Proposed Action include approximately 25 construction jobs for 7 months during construction of the pipeline. The Proposed Action would also generate indirect economic benefits to local and regional businesses through the operator's purchases of goods and services needed to construct the proposed pipeline replacement. The demand for goods and services would be further stimulated by the project's construction workforce and by workers employed by businesses that support the project and its workforce. Most of these regional benefits would likely occur in the communities of Rifle and Grand Junction, where most local oil and gas service businesses are located.

Sales and Use Tax Revenues. The Proposed Action would generate sales tax revenue for Eagle County through the sales of taxable goods purchased in the county. Eagle County could also receive use tax revenue from goods purchased elsewhere and imported into the county. Most sales and use tax revenue would result from retail expenditures by SourceGas employees, its contractors, and individuals whose jobs would be supported by the Proposed Action. Tax receipts would be highest during construction.

Recreation-Based Employment. Construction of the Proposed Action could result in short-term impacts to recreation-based tourism and residential access to recreation in the project area. Localized effects during construction would be strongest on businesses and recreational activities (mountain biking, golfing, and hiking) located within the Town of Eagle near the various trailheads and the Arroyo recreation-access parking lot in the areas that are crossed by the Proposed Action. These impacts would be temporary and last a short duration; additionally, work would be done in phases, impacting individual trails/trailheads and access areas for short periods of time without impacting all of them at once.

Housing. The Proposed Action is not expected to have a substantial impact on Eagle County or the Town of Eagle's housing market. The influx of construction workers into the region would be temporary and would likely not include many families or full relocation of people to the project area. If any workers were to permanently move to the project area, that influx would be within the absorptive capacity of regional communities. Potential impacts on property values near the project area and access routes caused by traffic and activities associated with project construction would be short-term.

The construction workforce would not be likely to have a substantial impact on the region's short-term housing market. SourceGas expects that the construction workforce would be from outside of the immediate project area; therefore, the demand for short-term housing would peak with non-local workers during the 7 months of construction. This increase in demand would be minimal and temporary in nature and would correspond to the availability of short-term housing in Eagle.

Public Safety. The Proposed Action would not be expected to have a substantial impact on medical service providers in the region. The Proposed Action could increase demands placed on the Greater Eagle Fire Protection District personnel and equipment, but is not expected to have a substantial impact on emergency and fire protection services in the District. The Proposed Action is not expected to increase response demands on the Eagle County Sheriff's Department.

Environmental Justice. The percentage of minority and/or low-income populations located in the vicinity of the project is substantially greater than the percentages of populations in the State of Colorado, but it is not anticipated that the Proposed Action would result in disproportionately adverse human health impacts or environmental effects on minority or low-income populations. Most project-related socioeconomic impacts, including those related to population, employment, government revenues, housing and safety, and emergency services would be associated with workforce size and the length of time construction of the pipeline would continue in the project area. Workforce requirements and local socioeconomic impacts would be greatest during the construction phase; operation of the pipeline would not result in socioeconomic impacts in the project area.

No Action Alternative

Under the No Action Alternative, the proposed pipeline would not be upgraded on BLM. Therefore, there would be no project-related impacts affecting socioeconomics on BLM land. However, BLM management and currently permitted activities in the project area, and associated impacts, would continue. These would include activities and impacts associated with pipelines, access roads, recreation, and grazing.

3.13. SOILS

Affected Environment

The proposed BLM ROW, work space, and TWA in Section 1 would be located on 4 soil types with a general slope of approximately 5 percent, ranging up to approximately 40 percent adjacent to the Mayer Gulch channel. The proposed BLM ROW, work space, and TWA in Section 2 would be located on one soil type (Almy loam) with a general slope of approximately 6 percent, ranging up to approximately 21 percent on a hillside overlooking Abrams Creek. The soil types of the proposed ROW are described in Table 10, arranged by decreasing percentage of the proposed disturbance area.

As shown, the soils most susceptible to erosion in Section 1 are the Dahlquist-Southace complex, Gypsum land-Gypsiorthids complex, and Yamo loam, which cover 49 percent of the proposed ROW. The limitations of the soils in Section 1 include low fertility, prevalence of stones, steep slopes, erosion, piping, low soil strength during wet periods, and gypsum. The Almy loam in Section 2 has moderate water erosion.

The soils in Section 1 are subject to CSU-1 due to slopes greater than 30 percent and fragile soils. The proposed Section 2 access road crosses slopes greater than 30 percent in limited stretches but is generally on fragile soils. The CSU allows the BLM to apply special design, implementation, and mitigation measures, potentially including relocation of the Proposed Action by more than 200 meters if necessary to

ensure a stable slope and adequate potential for reclamation. At present, however, the BLM does not believe that such measures are likely to be necessary, given that the proposed alignment is the same as the existing alignment, which has not had substantial construction or reclamation issues.

Table 10. Soil Types and Characteristics

<i>Soil Type</i>	<i>Description</i>	<i>Percent of ROW</i>
Mussel loam, 1 to 6 percent slopes	Calcareous alluvium on terraces and foot slopes. Surface runoff is low; soil is deep and well-drained. Topsoil is 8 inches thick. Surface runoff is slow. Slight water erosion. Primarily used as hayland and for homesite development. Limitation may include low fertility.	29
Dahlquist-Southace complex, 25 to 50 percent slopes	Mixed alluvium on fans, terraces, and terrace side slopes. Topsoil is 3 to 6 inches thick. Surface runoff is moderate to rapid; soil is deep and well-drained. Moderate to severe water erosion. Primarily used as rangeland, wildlife habitat, and sources of gravel and crushed rock. Limitations include stones and slope.	27
Almy loam, 1 to 12 percent slopes	Alluvium, derived from calcareous redbed sandstone and/or shale, on fans and uplands. Topsoil is 8 inches thick. Surface runoff is moderate; soil is well-drained. Moderate water erosion. Primarily used as rangeland or hayland.	22
Gypsum land-Gypsiorthids complex, 12 to 65 percent slopes	Mixed colluvium and/or mixed residuum on eroded hills, on mountainsides, and along dissected drainageways. With high gypsum content, derived dominantly from gypsiferous shale and sandstone. Topsoil is 8 inches thick. Surface runoff is moderate; soil is shallow to moderately deep, and well-drained. Slight to severe water erosion. Primarily used as wildlife habitat. Limitations include slope, erosion, piping, and low soil strength during wet periods.	12
Yamo loam, 12 to 25 percent slopes	Colluvium, derived from sandstone, shale and/or gypsum, on fans and toe slopes. Topsoil is 8 inches thick. Surface runoff is moderate to rapid; soil is deep and well-drained. Severe water erosion. Primarily used as rangeland. Limitations include slope and gypsum outcrops.	10

Source: USDA 1992 and 2015

Environmental Consequences

Proposed Action

The Proposed Action would: provide temporary access in Section 1 via a 2-track road; replace 1.11 miles of pipeline; and grant 2 TWAs. As much as 12 acres of surface soils would be disturbed.

Surface disturbance has the potential to adversely affect natural soil characteristics during clearing and grading, trenching and cleanup and, consequently, soil productivity and restoration potential. Additional potential soil impacts include:

- Soil erosion due to water, wind, loss of vegetation, and mass wasting;
- Soil compaction and damage to soil structure resulting from the movement of heavy construction equipment;
- Soil mixing or displacement from grading, excavation, stockpiling, and reclamation;
- Rutting from equipment or vehicle traffic;
- Structural damage to wet or frozen soils and soils with poor drainage;

- Introduction of large stones or rock into the topsoil as a result of construction.

Construction activities would cause mixing of soil horizons, local soil loss, loss of soil productivity, and increased sediment available for transport to surface waters. Infestations of noxious weeds resulting from soil disturbance could also affect soil productivity. Certain designs and BMPs of the Proposed Action would minimize adverse impacts to soils. Surveys would be performed before construction activities commence to identify the centerline of the pipeline and the boundaries of the approved work space. Construction activity and ground disturbance would be limited to approved, staked areas.

Topsoil would be removed from the trench line and working side of the work space, and stockpiled separate from subsoil. Dry drainages or washes that cross the construction work space would not be blocked with topsoil or subsoil piles. Topsoil and subsoil would be placed outside of the ordinary high water marks of drainages. Gaps would be left at regular intervals in the windrowed topsoil and subsoil to avoid ponding and excess diversion of natural runoff during storm events.

Fugitive dust would be generated during construction. This would be minimized by wetting down the soils with potable water if necessary, minimizing traffic and limiting speeds in disturbed areas, and covering stockpiles with a tarp or other protective material where appropriate.

Cleanup and reclamation would occur after the pipeline is installed and backfill activities are completed. Along the construction work space and any TWAs, cleanup of the surface would include removing construction debris and grading the disturbed areas to specified contours. Erosion control measures would be installed and seeding would be performed in accordance with landowner and BLM requirements.

In addition, the COAs for salvaging and handling soils, revegetation, and control of weeds are expected to result in minimal long-term loss of soil volume and productivity.

No Action Alternative

The No Action Alternative would deny the ROW and the TUP in order for SourceGas to replace 1.11 miles of pipeline on BLM-administered land. As such, the pipeline would not be upgraded in its existing alignment to safely operate at a capacity that meets current and future demands of natural gas. Therefore, there would be no project specific impacts on BLM land. Other pipeline alignments would likely be considered on non-Federal land, which would cause surface disturbance in areas with little or no previous disturbance, as well as residential areas.

3.14. SPECIAL DESIGNATIONS

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Affected Environment

BLM lands with unique values that require special management in order to protect resource values were designated within the 2015 Colorado River Valley Field Office Record of Decision and Approved Resource Management Plan as Areas of Environmental Concern (ACECs). The overarching objective for ACEC designations is to *protect important geologic, botanic, historic, cultural, and scenic values, fish and wildlife resources, and other natural systems (rare or exemplary) that are vulnerable to adverse change and protect human life and property from natural hazards* (BLM 2015).

The eastern end of the proposed pipeline project, on BLM land, is located within the Hardscrabble-Mayer Gulch ACEC. This ACEC was designated specifically to *protect one of the highest known concentrations*

of excellent quality occurrences (a core population) of the BLM sensitive plant species, Harrington's penstemon (Penstemon harringtonii). All surface-disturbing activities within this ACEC are subject to stipulation CRVFO-NSO-10: Sensitive Plants within ACECs, which prohibits surface occupancy and surface-disturbing activities within 100 meters (328-feet) around occupied BLM sensitive plant habitat within ACECs. In addition, this ACEC is designated as a ROW avoidance area (BLM 2015).

Environmental Consequences

Proposed Action

Under the Proposed Action, the pipeline replacement would cross the Hardscrabble-Mayer Gulch ACEC for 4,435 feet of its length, but all project disturbances within the ACEC would be restricted to the existing ROW disturbance area and an existing two-track access road. No new ground disturbance would occur within this area. As described in more detail in the Sensitive Plants section of this document, the existing pipeline ROW has been re-colonized by a relatively small number of Harrington's penstemon plants since the initial pipeline installation, and mortality of these plants would occur. However, the current pipeline ROW reclamation is primarily of non-native grasses, providing relatively poor quality habitat for Harrington's penstemon. The pipeline replacement would remove this non-native vegetation, and immediately following project completion the corridor would be seeded with a mix of native bunchgrass, forb, and shrub species to restore a higher quality of Harrington's penstemon habitat than is currently present.

To achieve compliance with the CRVFO RMP, granting of an exception to the CRVFO-NSO-10 stipulation would be required. This NSO is subject to standard exceptions, which could include requirements for additional conditions of approval (COAs), reclamation measures, or BMPs. This project would include additional COAs to protect adjacent Harrington's penstemon plants and habitat from direct and indirect impacts, including requirements for a botany monitor, temporary construction fencing along the edge of the existing ROW disturbance area, dust control, and restrictions on broadcast herbicide treatments for noxious weeds. In addition, reclamation seeding would be required immediately following project completion, and the required seed mix would replace the existing non-native grasses with a suite of native species more conducive to re-establishment of Harrington's penstemon within the existing ROW corridor. By restricting disturbance to the existing ROW, no new disturbance would occur in the ACEC.

No Action Alternative

Under the No Action Alternative, the pipeline replacement would not occur on BLM lands or within the Hardscrabble-Mayer Gulch ACEC. Therefore, there would be no impact to the ACEC.

New pipeline construction would be expected on private lands, and impacts to Harrington's penstemon and occupied habitat could occur on private lands.

3.15. SPECIAL STATUS SPECIES

FEDERALLY LISTED, PROPOSED, OR CANDIDATE PLANT SPECIES

Affected Environment

According to the latest species list from the USFWS, four Federally listed plant species may occur within or be impacted by actions occurring in Garfield County. Table 11 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.

Table 11. 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 6,000 feet	Desert shrubland with shadscale, galleta grass, black sagebrush, Indian ricegrass grading upward into big sagebrush and sagebrush/pinyon-juniper	No	No
Ute lady’s-tresses orchid (<i>Spiranthes diluvialis</i>) – Threatened	Subirrigated alluvial soils along streams and in open meadows in floodplains; 4,500 to 7,200 feet	Boxelder, cottonwoods, willows, and herbaceous riparian graminoids and forbs.	Yes	No

The proposed project is within the range of only one of these Federally listed plant species, Ute lady’s-tresses orchid. Botany surveys were conducted in the spring and summer of 2015 in all potential Ute ladies’-tresses habitat, and no plants or suitable habitat were found (Olsson Associates 2016).

Environmental Consequences

Proposed Action

Because there are no known occurrences or suitable habitat for DeBeque phacelia, Parachute penstemon, or Colorado hookless cactus within 100 meters of the proposed pipeline disturbance areas, the project would have “**No Effect**” on any of these Federally listed plant species. Because surveys found no known occurrences or suitable habitat for Ute lady’s-tresses within 100 meters of the proposed pipeline disturbance areas, the project would have “**No Effect**” on Ute lady’s-tresses.

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be “**No Effect**” on any Federally listed plant species on BLM lands. Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to Federally listed species dependent on the alternative location chosen.

BLM SENSITIVE PLANT SPECIES

Affected Environment

BLM sensitive plant species with habitat and/or occurrence records in Garfield County are listed in Table 12, along with summaries of their habitat requirements, potential for occurrence within the project area, and potential to be impacted by the Proposed Action. Harrington’s penstemon is the only species with the potential to occur within the project area. Harrington’s penstemon is a perennial vascular plant found primarily in dry, sagebrush-dominated communities in six counties in northwest Colorado, roughly grouped into three population centers: 1) the Rifle-Rulison area in Garfield County; 2) the Eagle/Grand/Routt/Summit Counties area (Eagle); and 3) the Roaring Fork area in Pitkin County. It forms rosettes, which then develop flowering stalks, and single plants can form multiple rosettes (DeYoung personal communication). NatureServe and the Colorado Natural Heritage Program both rank this species as vulnerable (G3 and S3).

Table 12. 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; 5,100 to 6,400 feet	Pinyon-juniper woodlands and desert shrub.	No	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
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	Yes	Yes
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

Harrington’s penstemon is known to occur in high densities at the eastern end of the project area, and because of this the area and all Harrington’s penstemon plants here were protected under the revised

CRVFO RMP within the Hardscrabble – Mayer Gulch Area of Critical Environmental Concern (ACEC). Harrington’s penstemon plant densities were quantified in a Point-in-Time census macroplot in Mayer Gulch in July 2006, with an estimated plant density of 6,942 plants per acre (BLM monitoring data). Because of this, the area and all Harrington’s penstemon plants here were protected under the 2015 CRVFO RMP within the Hardscrabble – Mayer Gulch Area of Critical Environmental Concern (ACEC).

Botany surveys were conducted by Olsson Associates along approximately 66% of the proposed project area, and within a 30 meter buffer of the proposed disturbance area, in June-July 2015 (Olsson Associates 2016). Approximately 34% of the project area and associated buffer area were not surveyed. Survey data from 2015 were integrated with population estimates from the 2006 Point-in-Time census in the easternmost portion of the project area, which was not surveyed in 2015, to derive impact estimates to Harrington’s penstemon from the overall project.

Environmental Consequences

Proposed Action

Harrington’s penstemon is the only BLM sensitive plant species with the potential to be impacted by this project. The project disturbance would be limited primarily to the existing ROW disturbance area and existing access roads at the east end of the project within the Hardscrabble-Mayer Gulch ACEC. There would be limited new disturbance at the proposed 25 foot wide extra work space and temporary work space at the western end of the project. Harrington’s penstemon densities are greatest adjacent to the eastern end of the project, which was not surveyed. Some re-colonization by Harrington’s penstemon within the reclaimed existing ROW has occurred, and 2015 surveys found a total of 43 plants within the existing ROW and an additional seven plants within the extra work space at the western end. Factoring in the fact that 2015 was a very poor year for Harrington’s penstemon across its range and that the unsurveyed portion of the project is located in a known high density population area for the species, an estimated total of 150-200 Harrington’s penstemon plants would experience direct mortality from the project. An additional estimated 77,000 plants located within 30 meters of the disturbance area would experience indirect impacts from project implementation, as described in more detail below and in the Vegetation section. Additional impacts would occur to occupied Harrington’s penstemon habitat on adjacent City of Eagle lands not included in this analysis.

Potential indirect effects could result from increased vehicle traffic and pipeline installation could generate dust which could negatively impact Harrington’s penstemon plants. The risk for dust impacts would continue to occur following pipeline installation and prior to establishment of reclamation vegetation, when the bare ground surface would be vulnerable to strong winds.

Harrington’s penstemon plants could also be indirectly impacted by noxious weeds and other invasive plants, or by herbicides used to control these species. Noxious weeds are common and widespread throughout the project area, and current control efforts appear ineffective in preventing spread. New ground disturbance from pipeline installation could result in increased noxious weed establishment and spread into Harrington’s penstemon habitat, creating competition for resources including water, nutrients, and sunlight. Mulch used in reclamation, even though certified as weed-free, may contain seeds of non-native species which could introduce new species and competition with Harrington’s penstemon plants. Herbicides used to treat noxious weeds associated with project implementation have the potential to drift into areas occupied by Harrington’s penstemon, with the associated potential for plant mortality or reduced vigor. Herbicides, and loss of native vegetation, could also potentially impact plant pollinators, which in turn could negatively impact Harrington’s penstemon.

To mitigate for the impacts to Harrington’s penstemon, several actions would be required of Black Hills Energy. Temporary construction fence would be installed on the edge of disturbance, with a BLM approved botany monitor present on-site, prior to any ground disturbance and would remain until reclamation seeding and mulching have been completed. To increase the probability of successful Harrington’s penstemon re-establishment, a site-specific reclamation seed mix would be used to promote shrubs and forbs commonly co-occurring with Harrington’s penstemon, including seed collection and direct broadcast sow from adjacent sagebrush seeds into the reclamation area. To reduce the risk of introducing non-native plant species to Harrington’s penstemon habitat, only hydromulch or native grass hay from approved species and growers would be used for mulch during the reclamation. To reduce the risk of negative indirect impacts to adjacent Harrington’s penstemon plants, specific COAs would require dust mitigation using clean water with no additives (unless specifically approved by the BLM) for dust mitigation if pipeline installation cannot be completed outside of the growing season. In addition, there would be specific COA requirements for noxious weed treatment and restrictions on herbicide use.

No Action Alternative

Under the No Action Alternative, the proposed pipeline upgrade would not occur on BLM lands. Therefore, the project would have no impact on any BLM sensitive plant species on BLM lands. New pipeline would likely be constructed on private lands, with a high potential for impacts to Harrington’s penstemon on private lands. The type and degree of impacts would depend on the alternative location.

FEDERALLY LISTED, PROPOSED, OR CANDIDATE ANIMAL SPECIES

Affected Environment

Federally listed, proposed, or candidate species potentially occurring within or affected by actions in Eagle County include eight species of vertebrate wildlife. Table 13 lists these species and summarizes information on their distribution, habitat associations, and potential to occur or be adversely affected.

Table 13. Potential for Occurrence of Threatened or Endangered Animal Species

<i>Species and Status</i>	<i>Distribution in Region</i>	<i>Preferred Habitats</i>	<i>Potentially Present in Vicinity?</i>	<i>Potentially Adversely Affected?</i>
Canada lynx (<i>Lynx canadensis</i>) – Threatened	Dispersed use in in upper montane and subalpine zones of Colorado mountains.	Subalpine spruce-fir forests; also lodgepole pine and aspen to as low as upper montane.	No	No
Yellow-billed cuckoo (<i>Coccyzus americanus</i>) – Threatened, Western Distinct Population Segment	Major rivers and tributaries of western, northwestern, and south-central Colorado.	Large cottonwood stands with tall shrub understory along rivers.	No	No
Mexican spotted owl (<i>Strix occidentalis lucida</i>) – Threatened	No historic occurrence in area; present in southwestern Colorado and southern Front Range.	Rocky cliffs in canyons with closed-canopy coniferous forests.	No	No
Razorback sucker (<i>Xyrauchen texanus</i>) – Endangered	Colorado River and major tributary rivers, including mainstem Colorado River	General: Deep, slow runs, pools, and eddies. Spawning: silt to gravel	No	No

<i>Species and Status</i>	<i>Distribution in Region</i>	<i>Preferred Habitats</i>	<i>Potentially Present in Vicinity?</i>	<i>Potentially Adversely Affected?</i>
Colorado pikeminnow (<i>Ptychocheilus lucius</i>) – Endangered	upstream to town of Rifle in CRVFO.	substrates in shallow water and seasonally flooded overbank areas.	No	No
Humpback chub (<i>Gila cypha</i>) -- Endangered	Mainstem Colorado River and major tributaries – upstream to Black Rocks near Utah state line.	Rocky runs, riffles, and rapids in swift, deep rivers.	No	No
Bonytail chub (<i>Gila elegans</i>) – Endangered			No	No
*Green Lineage cutthroat trout (<i>Oncorhynchus clarki</i> ssp.) – Threatened	Identified in 60 streams in Colorado River basin including CRVFO area.	Clean, cool headwaters streams and ponds isolated from other strains of cutthroat trout.	Yes	No
*Green Lineage = Relict populations of cutthroat trout indigenous to the Colorado/Gunnison/Dolores River drainages. Currently protected under the ESA pursuant to prior listing of the greenback cutthroat trout (<i>O. c. stomias</i>) pending completion of genetic and morphometric studies and taxonomic reassessment of native cutthroat trout in Colorado.				

Environmental Consequences

Proposed Action

Canada Lynx, Greater Sage-grouse, Mexican Spotted Owl, and Western Yellow-billed Cuckoo. These four species (including the distinct population segment for the cuckoo) are not expected to occur in the project vicinity based on documented occurrences and habitat types present. Therefore, the Proposed Action would have “**No Effect**” on these species.

Razorback Sucker, Colorado Pikeminnow, Humpback Chub, and Bonytail Chub. These four 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. This portion of the Colorado River lies a few miles northeast of the project area. The nearest known habitat for the humpback chub and bonytail is within the Colorado River approximately 70 miles downstream from the project area. Occasionally, the bonytail is in Colorado west of Grand Junction, but its range does not extend east from that point. Only one population of humpback chub, at Black Rocks west of Grand Junction, is known to exist in Colorado.

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. Construction activities would increase the potential for soil erosion and sedimentation. Although a minor temporary increase in sediment transport to the Colorado River may occur, it is unlikely that the increase would be detectable above current background levels. In any case, the Federally listed, proposed, or candidate fish species associated the Colorado River are adapted to naturally high sediment loads and would not be affected.

In contrast to inflow of sediments, the inflow of chemical pollutants could impact the endangered big-river fishes if concentrations are 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 into an ephemeral drainage that could flow to the Colorado River, the operator would be required to implement its Spill Prevention, Control, and Countermeasures (SPCC) plan, including such cleanup and mitigation measures as required by BLM or the State. For these reasons, and because any spills 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.

Based on the above, the BLM has determined that inflow of sediments and chemicals into the Colorado River would have “**No Effect**” on the endangered big river fishes. In the unlikely event of a spill with the potential to affect, or documented occurrence of an effect, the USFWS would initiate discussions with the involved parties to identify appropriate remedies.

Greenback Cutthroat Trout (Green Lineage Colorado River Cutthroat Trout). Since Green Lineage cutthroat trout exist primarily upstream of the proposed development and the pipeline that currently crosses Abrams Creek does not need to be replaced, the proposed action has the little potential to cause direct and indirect impacts to these fish. Other potential impacts to this species include inflow of sediments from areas of surface disturbance and inflow of chemical pollutants related to the development. Construction activities would increase the potential for soil erosion and sedimentation.

Although a minor temporary increase in sediment transport to Abrams Creek may occur, it is unlikely that the increase would be detectable above current background levels. 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 these substances as well as sediments to surface waters, including the Abrams Creek. For these reasons, the Proposed Action would have “**No Effect**” on the Green Lineage Colorado River cutthroat trout from potential impacts to water quality.

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be “**No Effect**” on any Federally listed animal species on BLM lands.

Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to Federally listed species dependent on the alternative location chosen.

BLM SENSITIVE ANIMAL SPECIES

Affected Environment

Table 14 lists BLM sensitive vertebrate wildlife species that are known to occur in the region and, if present, could potentially be adversely affected by the Proposed Action. Potential impacts to the species listed are discussed following the table.

Table 14. BLM Sensitive Vertebrate Species Present or Potentially Present in the Project Area

<i>Common Name</i>	<i>Habitat</i>	<i>Potential for Occurrence</i>
Fringed myotis (<i>Myotis thysanodes</i>)	Roosting: Caves, trees, mines, and buildings. Foraging: Pinyon-juniper, montane conifers, and semi-desert shrubs.	Possible
Spotted Bat (<i>Euderma maculatum</i>)		
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)		
Rocky mountain bighorn sheep (<i>Ovis canadensis</i>)	Rocky Mountain bighorn sheep typically inhabit steep, precipitous mountain and canyon terrain with good visibility and escape terrain. The CRVFO includes the Glenwood Canyon, Derby Creek, Deep Creek and Battlement Mesa herds. Additional herds inhabit nearby USFS lands.	Absent
Northern goshawk (<i>Accipiter gentilis</i>)	Montane and subalpine coniferous forests and aspen forests; may move to lower elevation pinyon/juniper woodland in search of prey during winter.	Possible
Ferruginous hawk (<i>Buteo regalis</i>)	Open, rolling and/or rugged terrain in grasslands and shrub-steppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/ winter resident, non-breeding.	Unlikely
Golden eagle (<i>Aquila chrysaetos</i>)	Nesting/Roosting: cliffs and trees. Forages widely over open habitats, including grasslands and sagebrush, particularly in areas with abundant rabbits. Suitable mixes of sagebrush and cliffs can support high concentrations. Primary forages include small rodents, hares, and rabbits, and carrion during winter.	Possible
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Nesting/Roosting: Mature cottonwood forests along rivers. Foraging: Fish and waterfowl along rivers and lakes; may feed on carrion, rabbits, and other foods in winter.	Nests and roosts along Eagle and Colorado Rivers
Peregrine falcon (<i>Falco peregrinus</i>)	Nesting: Cliffs, usually near a river, large lake, or ocean. Foraging: Waterfowl on rivers and lakes; upland fowl in open grassland or steppe.	Unlikely
Black swift (<i>Cypseloides niger</i>)	Nest in colonies on vertical rock faces, near waterfalls or in dripping caves. Birds arrive in Colorado in June and take all summer to raise a single nestling. Adults forage widely on aerial insects.	Absent
Brewer's sparrow (<i>Spizella breweri</i>)	Extensive stands of sagebrush, primarily Wyoming sagebrush on level or undulating terrain.	Possible
Columbian sharp-tailed grouse (<i>Tympanuchus phasianellus columbiana</i>)	Use a variety of habitats within sagebrush, mountain shrub, and riparian areas. From spring to fall a component of denser riparian or mountain shrub vegetation is important for escape cover. Winter habitat contains a dominant component of deciduous trees and shrubs. In Colorado, leks typically occur in sagebrush.	Absent
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	Found only in areas where sagebrush is abundant, providing both food and cover. Prefer relatively open sagebrush flats or rolling sagebrush hills.	Historic habitat/unlikely

<i>Common Name</i>	<i>Habitat</i>	<i>Potential for Occurrence</i>
Midget faded rattlesnake (<i>Crotalus oreganus concolor</i>)	Cold desert of NW Colorado, SW Wyoming, and NE Utah, primarily in sagebrush with rock outcrops and exposed canyon walls.	Absent
Great Basin spadefoot (<i>Spea intermontana</i>)	Permanent or seasonal ponds and slow-flowing streams in pinyon-juniper woodlands and semi-desert shrublands.	Absent
Boreal toad (<i>Anaxyrus boreas boreas</i>)	Occurs between 7,000-12,000 feet in the Southern Rocky Mountains near mountain lakes, ponds, meadows, and wetlands in subalpine forest (e.g., spruce, fir, lodgepole pine, and aspen). Adults often feed in meadows and forest openings near water, but sometimes in drier forests. Restricted to areas with suitable breeding habitat in spruce-fir forests and alpine meadows. Breeding habitat includes lakes, marshes, ponds, and bogs with sunny exposures and quiet, shallow water.	Absent
Northern leopard frog (<i>Lithobates pipiens</i>)	Clean, perennial waters in slow-flowing streams, wet meadows, marshes, and shallows of clean ponds and lakes.	Possible
“Blue Lineage” cutthroat trout (<i>Oncorhynchus clarki ssp.</i>)	Headwaters streams and ponds with cool, clear waters isolated from populations of non-native cutthroats and rainbow trout.	Absent
Bluehead sucker (<i>Catostomus latipinnis</i>)	Primarily smaller streams with a rock substrate and mid to fast-moving waters; also shallows of larger rivers.	Present in Brush Creek and Eagle River
Flannelmouth sucker (<i>Catostomus discobolus</i>)	Runs, riffles, eddies, and backwaters in large rivers.	
Roundtail chub (<i>Gila robusta</i>)	Slow-moving waters adjacent to fast waters in large rivers.	
*Blue Lineage cutthroat Trout = Relict populations of cutthroat trout indigenous to the Colorado and Gunnison River drainages but widely transplanted throughout the state. Managed as a BLM sensitive species pursuant to prior designation of the Colorado River cutthroat trout (<i>O. c. pleuriticus</i>) pending completion of genetic and morphometric studies and taxonomic reassessment of native cutthroat trout in Colorado.		

Environmental Consequences

Proposed Action

Fringed myotis, Spotted Bat, and Townsend’s big-eared Bat. Townsend’s big eared bats and fringed myotis occur as scattered in small populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both species forage for aerial insects over pinyon-juniper, montane conifer, and semi-desert shrubland communities and roost in caves, rock crevices, mines, buildings, and tree cavities.

Spotted bats have been detected in Colorado in ponderosa pine woodlands or montane forests, pinyon-juniper woodlands, and riparian vegetation; over sand and gravel bars; and in open semidesert shrublands. This species needs access to water and suitable cracks and crevices in rocky cliffs for roosting. Limited information is available for the spotted bat in the CRVFO. No roosts or hibernaculum for these species are documented in the project area.

Northern Goshawk. Although this large accipiter (“bird hawk”) nests in upper montane or subalpine conifer or aspen forests, individual often move into lower elevation pinyon-juniper habitats in winter in

search of small birds and diurnal small mammals. This winter use is transitory and dispersed, with the goshawks foraging across large areas instead of establishing winter territories. Consequently, human activities that may cause displacement are unlikely to affect the winter survival of individuals and would not affect populations.

Bald and Golden Eagles. Although bald eagles nest and roost along the Colorado River and Eagle River, and golden eagles nest in cliffs either south or north of the project area, the potential for use of the actual project area is moderate. Any such use would most likely be by an individual hunting across large expanses of open upland habitats during winter. The project area would represent a small portion of such potential winter hunting habitat, and the reclaimed grass-forb community would provide better habitat for prey than the current shrubland types.

Peregrine Falcon. Peregrine falcons nest along cliff bands north of the project and hunt for waterfowl along the Colorado River or other birds across open terrain. Use of the project area is unlikely, except for infrequent, transitory overflights while traveling between the Colorado River and the cliff bands to the north.

Brewer's Sparrow. Although the habitat is marginal in the project area, the possibility exists of nesting by this species. The 60-day TL to prohibit removal of vegetation during the period **May 15 to July 15** (see Appendix A) would avoid or minimize the potential for impacts to nesting Brewer's sparrows. Construction activities outside this period could cause individuals to avoid the disturbance while feeding. However, this impact would be limited in duration at any point along the corridor, and individuals are expected to feed across very large home ranges outside the nesting season, thus minimizing the severity of this potential indirect impact.

Greater Sage-Grouse. Sage-grouse are found only in areas where sagebrush is abundant, providing both food and cover. Sage-grouse prefer relatively open sagebrush flats or rolling sagebrush hills. In winter, sagebrush accounts for 100% of the diet for these birds. It also provides important escape cover and protection from the elements. In late winter, males begin to concentrate on traditional strutting grounds or leks. Females arrive at the leks 1-2 weeks later. Leks can occur on a variety of land types or formations (windswept ridges, knolls, flat areas of sagebrush, and bare openings in the sagebrush. Breeding occurs on the leks and in the adjacent sagebrush, typically from March through May. Females and their chicks remain largely dependent on forbs and insects for food well into early fall. Within the CRVFO, sage-grouse are present in the northeast part of the Field Office in the Northern Eagle/Southern Routt population. While small (<500 birds), this population probably has, or had, a relationship with the larger population in Moffat, Rio Blanco and western Routt counties, and probably with the Middle Park population to the east. The project area does not include lands allocated as priority habitat management areas (PHMA) and general habitat management areas (GHMA) but is considered historic habitat.

Northern Leopard Frog. Generally found in wet meadows and in shallow lentic habitats between 3,500 to 11,000 feet. They require year-round water sources deep enough to provide ice free refugia in the winter.

Within the CRVFO, this species has been documented in locales where high-quality riparian vegetation exists in conjunction with perennial water sources. No northern leopard frogs were observed during biological surveys.

Bluehead Sucker, Flannelmouth Sucker, and Roundtail Chub. As with the ecologically similar Colorado River endangered fishes described above, the flannelmouth sucker and roundtail chub are adapted to naturally high sediment loads and therefore would not be affected by increased sediment transport to Parachute Creek and the Colorado River. Furthermore, protective COAs for water quality would minimize this potential (Appendix A). However, these species are vulnerable to alterations in flow

regimes in the Colorado River (including evaporative losses from dams and depletions from withdrawal of water for irrigation or municipal water supplies) that affect the presence of sandbars and seasonally flooded overbank areas needed for reproduction. The amount of depletion in flows associated with this project is not expected to have a significant adverse impact on the survival or reproductive success of these species.

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be no impact to any BLM sensitive species on BLM lands. Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to BLM sensitive species dependent on the alternative location chosen.

3.16. SURFACE WATER RESOURCES

Affected Environment

The 12-digit hydrologic unit code (HUC) of Sections 1 and 2 is 140100030405, the Abrams Creek - Brush Creek Sub-watershed of the Eagle Sub-basin of the Upper Colorado. Sections 1 and 2 cover several streams that flow to Brush Creek, which drains to the Eagle River, approximately 2 to 3 air-miles north. Moving down-gradient in Section 1, the pipeline proposed for replacement on BLM-administered land would cross Mayer Gulch, and run parallel and adjacent to Mayer Gulch. Moving down-gradient in Section 2, the proposed staging area and the pipeline proposed for replacement would run parallel with and near Abrams Creek.

The proposed Section 2 access road would cover two 12-digit HUCs, 140100030605 (Spring Creek – Eagle River subwatershed) and 140100030405 (Abrams Creek - Brush Creek subwatershed). Coming from the west, the proposed access road to Section 2 would cross unnamed tributaries of Spring Creek, the headwaters of McHatten Creek, and the headwaters of Alkali Creek, as well as run parallel and near Abrams Creek.

Abrams Creek is a perennial stream, whereas Alkali Creek, Mayer Gulch, McHatten Creek, and Spring Creek are intermittent streams. Perennial streams are subject to NSO-5; intermittent streams are subject to CSU-3. Impacts to these presumed Waters of the U.S. would be regulated by the USACE pursuant to Section 404 of the Clean Water Act.

As for water quality, these streams are within Stream Segment 10 of the Eagle River, which is classified as:

- Aquatic Life Cold 1: currently capable of sustaining a wide variety of cold water biota, including sensitive species, or could sustain such biota but for correctable water quality conditions.
Waters shall be considered capable of sustaining such biota where physical habitat, water flows or levels, and water quality conditions result in no substantial impairment of the abundance and diversity of species.
- Recreation E: used for primary contact recreation or have been used for such activities since November 28, 1975.
- Water Supply: suitable or intended to become suitable for potable water supplies. After receiving standard treatment (defined as coagulation, flocculation, sedimentation, filtration, and disinfection with chlorine or its equivalent) these waters will meet Colorado drinking water regulations and any revisions, amendments, or supplements thereto.

- Agriculture: suitable or intended to become suitable for irrigation of crops usually grown in Colorado and not hazardous as drinking water for livestock (CDPHE 2015b).

The streams affected by the project are not on the State of Colorado's Section 303(d) List of Impaired Waters and Monitoring and Evaluation List (CDPHE 2016). Abrams Creek is designated as outstanding natural resource water from its source to the eastern boundary of BLM-administered land.

A portion of the proposed access road in Section 2 crosses the Town of Gypsum's public water system, which is subject to the protections of BLM's NSO-3 and CSU-2, as well as the Colorado Oil and Gas Conservation Commission (COGCC) Rule 317B (2015). Approval of this EA would constitute the granting of exceptions to these ROW stipulations.

Wetlands are not present along Section 1's proposed pipeline alignment on BLM-administered land. However, wetlands may exist along other sections of the proposed access road and pipeline alignment. Wetlands may be considered jurisdictional Waters of the U.S. as defined by 33 CFR Part 328. If identified, wetlands are subject to CSU-4. Additional details on wetlands are provided in Section 3.18, Vegetation.

Environmental Consequences

Proposed Action

Impacts to surface water could occur as a result of the proposed pipeline construction, including surface disturbance and grading, vegetation clearing, landform modification, and earthmoving operations. These activities can mobilize sediment and create soil compaction. Near-surface soil compaction caused by construction equipment activity could reduce the ability of the soil to absorb water and could therefore increase surface runoff and the potential for ponding. The potential for sediment transport would increase in the drainages crossed by the pipelines. This potential would be greatest during and following construction and would decrease as the channels and banks become stabilized as a result of reclamation.

Sediment transport from disturbed areas near drainages could be triggered by runoff events resulting from intense or protracted rainfall or from snowmelt. Possible effects could include increased erosion, increased sedimentation farther downstream, changes in channel morphology associated with trenching across streambanks and channels, and backfilling of pipeline trenches.

At the drainage crossing (Mayer Gulch), direct impacts would consist of temporary disturbance of the channels and banks associated with open-trench installation of the pipeline. Design features and mitigation measures to minimize adverse impacts to Waters of the U.S. would include crossing the streams perpendicularly, constructing during a period of low or no flow, reducing the width of the crossing as much as possible while allowing the pipeline replacement, promptly recontouring the affected channels, and promptly initiating reseeding efforts.

Prior to construction, SourceGas would obtain verification from the USACE that the crossing is authorized under NWP 12 for utility line activities. The bed, banks, and riparian areas of Mayer Gulch would be reclaimed according to the USACE NWP 12 conditions. Stormwater management protocols would be implemented to prevent discharge of sediment from the construction ROW into drainages. These requirements and other mitigations are included in the COAs.

If dewatering is permissible, water would be released either in a level upland area in accordance with the CDPHE General Permit or in accordance with a CDPHE Construction Dewatering Discharges permit.

Water for construction activities would be obtained from a municipal water supply and appropriate BMPs would be used.

Where pipelines are to be placed in or adjacent to the roadway to avoid impacts to nearby sensitive resources, upgrading or replacing culverts at those locations would be another potential source of erosion and sediment transport. Design criteria and mitigation measures applied as COAs by the BLM would reduce these risks. Examples include not trenching across a channel when flowing or when the substrates are wet and muddy from recent flows, restoring banks and the channel to pre-existing configurations, and promptly revegetating the banks and adjacent upland areas.

Stormwater discharges associated with construction activity would be authorized under a CDPHE General Permit, which requires, among other conditions, the preparation and implementation of a Stormwater Management Plan (SWMP) by SourceGas. The SWMP would include BMPs to reduce the potential for the project to contribute pollutants to stormwater discharges.

All pipeline construction and maintenance would follow Gold Book Standards (United States Department of the Interior [USDI] and United States Department of Agriculture [USDA] 2007) and requirements specified by the USACE as part of its authorization of the project under Section 404 of the Clean Water Act. Pipeline crossings through drainage channels would be constructed to withstand floods of extreme magnitude to prevent rupture and accidental contamination of runoff during high-flow events.

During construction, the potential would exist for spills of fuels, lubricants, and solvents into surface waters as a result of operation of vehicles and heavy equipment at or near drainages. Any spills would be promptly contained and remediated in accordance with SourceGas's Spill Prevention, Control, and Countermeasure (SPCC) Plan. Spills would be promptly reported to the BLM and, if the potential exists for transport toward the Eagle River, to downstream municipalities. Over the long-term, leakage from the pipeline at or near drainages could impact a channel that drains toward the Eagle River. This would also be addressed by the SPCC Plan. In addition, the pipelines would undergo hydrostatic testing to detect leakage prior to operation.

No Action Alternative

The No Action Alternative would deny the ROW and the TUP in order for SourceGas to replace 1.11 miles of pipeline on BLM-administered land. As such, the pipeline would not be upgraded in its existing alignment to safely operate at a capacity that meets current and future demands of natural gas. Other pipeline alignments would likely be considered on non-Federal land, which would likely cause surface disturbance in areas with little or no previous disturbance, as well as residential areas. BLM management and currently permitted activities in the project area would continue, including activities associated with pipelines, access roads, recreation, and grazing.

3.17. VEGETATION

Affected Environment

The proposed pipeline upgrade would occur in a variety of vegetation communities, ranging in elevation from 7,200 feet at Abrams Creek at the west end, down to a low of 6,750 feet at the northern extent of Abrams Creek, then back up to 7,200 feet on the east end near Mayer Gulch. The pipeline ROW route passes through mountain big sagebrush shrublands, pinyon-juniper woodlands, and oak brush and mixed mountain shrublands. Vegetation types vary depending on slope, aspect, soils, elevation, and hydrology. Much of the construction would occur within the existing pipeline ROW, which has been previously disturbed and re-vegetated with primarily non-native reclamation grass species. Common species within each habitat type along the project corridor are identified below.

Mountain Big Sagebrush Shrublands. Mountain big sagebrush shrublands occur in flatter areas and at the lower elevations along the ROW corridor. The dominant species in this habitat type is mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*), but other shrubs occurring less frequently in this habitat type include bitterbrush (*Purshia tridentata*), mountain mahogany (*Cercocarpus montanus*), snowberry (*Symphoricarpos rotundifolius*), and yellow rabbitbrush (*Chrysothamnus viscidiflorus*). Dense grasses and forbs grow interspersed with these shrubs. Common grass species include Indian ricegrass (*Achnatherum hymenoides*), Junegrass (*Koeleria macrantha*), muttongrass (*Poa fendleriana*), slender wheatgrass (*Elymus trachycaulus*), squirreltail grass (*Elymus elymoides*), and western wheatgrass (*Pascopyrum smithii*). Common forb species include arrowleaf balsamroot (*Balsamorhiza sagittata*), death camas (*Zigadenus venenosum*), Indian paintbrush (*Castilleja* sp.), lobe-leaf groundsel (*Packera multilobata*), sego lily (*Calochortus nuttallii*), Osterhout's penstemon (*Penstemon osterhoutii*), prickly pear cactus (*Opuntia polyacantha*), Rocky Mountain penstemon (*Penstemon strictus*), running fleabane (*Erigeron flagellaris*), scarlet globemallow (*Sphaeralcea coccinea*), and tapertip onion (*Allium acuminatum*).

Pinyon-Juniper Woodlands. Although there is no pinyon-juniper woodland habitat directly within the proposed ROW, this habitat does occur adjacent to the ROW primarily at the western end of the project on mostly east-facing slopes. These areas consist of scattered Utah juniper (*Juniperus osteosperma*) and occasional pinyon pine (*Pinus edulis*), interspersed with stands of mountain mahogany (*Cercocarpus montanus*), in a transition between sagebrush shrublands and mixed mountain shrublands. Other shrub species occurring in these areas include bitterbrush (*Purshia tridentata*), broom snakeweed (*Gutierrezia sarothrae*), skunkbrush (*Rhus trilobata*), and Utah serviceberry (*Amelanchier utahensis*). The generally sparse understory includes non-native grasses such as cheatgrass and Kentucky bluegrass (*Poa pratensis*), as well as native grass species like Indian ricegrass (*Achnatherum hymenoides*), squirreltail grass (*Elymus elymoides*), and western wheatgrass (*Pascopyrum smithii*). Forb species are also a minor component of the understory, increasing with elevation.

Oakbrush and Mixed Mountain Shrublands. This habitat is located adjacent to the ROW at higher elevation and on north-facing slopes. Dominant vegetation is a mix of Gambel oak (*Quercus gambelii*), mountain mahogany, serviceberry, mountain big sagebrush, chokecherry (*Prunus virginiana*), and snowberry. Elk sedge (*Carex geyeri*), and numerous forbs, including aspen daisy (*Erigeron speciosus*), lambs-tongue ragwort (*Senecio integerrimus*), longleaf phlox (*Phlox longifolia*), Nuttall's larkspur (*Delphinium nuttallianum*), Rocky mountain penstemon, small-leaf pussytoes (*Antennaria parviflora*), tailcup lupine (*Lupinus caudatus*), and tuber starwort (*Pseudostellaria jamesiana*), dominate the understory.

Wetlands and Riparian Areas. The existing pipeline crosses the perennial Abrams Creek, as well as the ephemeral drainages of Hernage Creek, Third Gulch, Second Gulch, and Mayer Gulch.

The proposed project occurring on BLM lands would require pipeline replacement only at the Mayer Gulch stream crossing, but would also parallel Abrams Gulch at the west end of the project. Riparian vegetation along Abrams Creek is dominated by narrowleaf cottonwood (*Populus angustifolia*), narrowleaf willow (*Salix exigua*), and aspen (*Populus tremuloides*). Common understory species here, and in Mayer Gulch, include Bigelow's tansy-aster (*Machaeranthera bigelovii*), goldenrod (*Solidago* sp.), and yellow rabbitbrush. Non-native species are also common, including redtop (*Agrostis stolonifera*), smooth brome, Canada thistle and musk thistle.

Revegetated Pipeline ROW. Along the existing pipeline ROW, reclamation seeding following the original pipeline construction has converted the native vegetation to a plant community dominated by grasses, and primarily by non-native grasses. Common non-native species here are crested wheatgrass (*Agropyron cristatum*), intermediate wheatgrass (*Thinopyrum intermedium*), and smooth brome (*Bromus*

inermis). These are interspersed with native grass species, such as bluebunch wheatgrass (*Pseudoroegneria spicata*) and western wheatgrass, as well as some native forbs, including Osterhout's penstemon, Rocky Mountain penstemon, and scarlet globemallow. Invasive species and noxious weeds, as described in the Invasive, Non-Native Species section above, are also common within the existing pipeline ROW.

Environmental Consequences

Proposed Action

Under the Proposed Action, a total of 12.04 acres would be disturbed, of which 1.68 acres would be new disturbance and 10.29 acres would be re-disturbance within the existing ROW. All of this disturbance would occur on BLM lands, although there would be additional disturbance on City of Eagle lands that is not included in this analysis. Vegetation lost from the existing ROW would be mostly non-native grasses with some native species which have re-established since the initial disturbance. Within the temporary workspaces, new disturbance would remove primarily mountain big sagebrush shrubland vegetation, as well as some mixed mountain shrubland vegetation. Reclamation seeding on BLM lands would consist of native species appropriate for each vegetation community.

Adjacent native vegetation would not be directly impacted, but could be indirectly impacted by increased dust deposition on leaves. Depending on weather conditions during construction and prior to establishment of reclamation vegetation, dust levels could increase above ambient levels in the short term from the new pipeline installation. Increased dust levels can negatively impact plants by clogging stomatal openings in the leaves, impeding gas exchange and reducing light availability at the leaf surface, and thereby reducing photosynthesis rates, plant growth rates, and seed production. Dust on leaf surfaces can also facilitate plant tissue uptake of toxic pollutants (Thompson et. al. 1984, Farmer 1993, Sharifi et. al. 1997). Dust can also affect snowmelt patterns and resulting hydrology and soil moisture availability, alter soil pH and nutrient availability, and result in plant community composition changes (Angold 1997, Auerbach et. al. 1997, Johnston and Johnston 2004, Field et. al. 2010).

Cumulative impacts from the proposed project development and plant habitat loss, in combination with previous road, agriculture, and urban development in the area, could also indirectly impact adjacent vegetation through negative effects on pollinators. Pollinators depend on both appropriate floral communities and on appropriate nesting habitat. Many pollinators show fidelity to specific habitat areas, and if these sites become isolated from contiguous habitat by disturbances such as roads, pollinators may be reluctant to cross these barriers to utilize other habitats (Bhattacharya et. al. 2002, Osborne and Williams 2001). Roads and pipeline construction can negatively impact pollinators by creating barriers, by removing habitat as a result of new construction, and by direct mortality through collisions with vehicles.

Additional indirect impacts to adjacent vegetation could occur from noxious weeds and other non-native plants associated with project area disturbances. The proposed removal of native vegetation would increase the site vulnerability to invasion and establishment of noxious weeds and other non-native invasive plant species, particularly with the existing widespread establishment of noxious weeds and other non-native species. Neighboring vegetation would also become more vulnerable to invasion by noxious weeds and other non-native species. Ground disturbance combined with vehicle traffic and construction equipment provides both excellent habitat and vectors for invasive species, particularly when these species are already present within the soil seed bank (Schmidt 1989, Parendes and Jones 2000, Gelbard and Belnap, 2003, Larson 2003, Zaenepoel et. al. 2006). These non-native species can negatively impact native plant communities, both directly through competition for resources, and indirectly through alteration of soil microbial communities (Klironomos 2002, Hierro et. al. 2006, Reinhart and Callaway

2006, Vogelsang and Bever 2009). Herbicide treatments of noxious weeds can also result in negative effects or mortality to native plants if they are co-occurring or located nearby (BLM 2007). Implementation of general COAs for noxious weeds and interim reclamation (Appendix A) would reduce the risk of noxious weed establishment and spread through the combination of chemically treating noxious weeds while also seeding with desired plant species.

No Action Alternative

Under the No Action Alternative the pipeline upgrade would not occur on BLM lands, and there would be no project-related impacts to existing vegetation on BLM lands. However, new pipeline would likely be constructed on private lands, with vegetation loss dependent on the new location.

3.18. VISUAL RESOURCE MANAGEMENT

Affected Environment

The Proposed Action is located on public lands administered by the BLM approximately 3 air-miles south of the Town of Eagle and Interstate 70. The Proposed Action is immediately adjacent to the Eagle Ranch Subdivision. The Proposed Action is sited within Visual Resource Inventory Class 3, Scenic Quality C, High Sensitivity, and within the Foreground/Middleground Distance Zone.

These lands are classified as Visual Resource Management (VRM) Class II, as identified by the 2015 Colorado River Valley Field Office Approved Resource Management Plan and Record of Decision (ARMP/ROD). The objective of VRM Class II is to retain the existing character of the landscape. The level of change should be low and management activities may be seen, but should not attract attention. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The area of the Proposed Action has a variety of landscape character types and varying degrees of alteration from human activities. The project area consists of gently rolling hills that transition into steep foothills in the foreground rising to steeper mountain peaks in the background. Numerous side drainages and gulches dissect the landforms adding to the visual variety and topographic texture. Vegetation consists of pinyon juniper and sagebrush plant communities. The surrounding landscape has been modified by humans and consists of linear features such as buried utilities, roads, and dense subdivisions. The project area is within the Hardscrabble SRMA and Myer Gulch ACEC.

The visual resource analysis area includes Interstate 70, the Town of Eagle, and Eagle Ranch Subdivision. 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/middleground, within 5 miles from Interstate 70, the Town of Eagle, and Eagle Ranch Subdivision.

BLM guidance states that lands with high visual sensitivity are those within 5 miles of a primary travel corridor and of moderate to high visual exposure, where details of vegetation and landform are readily discernible and changes in visual contrast can easily be noticed by the casual observer.

Environmental Consequences

Proposed Action

To avoid or minimize impacts to visual resources, the proposed upgrade would run parallel to existing roads and within the existing previously disturbed right-of-way corridor as much as possible in both Sections 1 and 2. However, new surface disturbance would be created by the proposed 25-foot temporary

work area that runs parallel to the existing 50-foot wide right-of-way and the proposed temporary work area in Section 2. The existing right-of-way corridor is only visible when in close proximity and would not be visible from Interstate 70 or the Town of Eagle. When in close proximity to the right-of-way, there is noticeable visual contrast between the existing right-of-way and the landscape surrounding it because vegetation, particularly shrubs, within the right-of-way has not filled in to the extent of the surrounding landscape. However, the existing roads that parallel the right-of-way create more visual contrast in the landscape because of the strong linear features created by barren soil with a lighter color than the surrounding vegetation and the distinct edges created by the transition between the barren soil and existing vegetation.

Sections 1 and 2 would have limited visibility from the Eagle Ranch Subdivision because of the topography that surrounds them. Section 1 is located within a valley created by Meyer Gulch and is surrounded by rolling hills that would provide some visual screening to homeowners within the Eagle Ranch Subdivision. There are only two homes within the Eagle Ranch Subdivision that are in close proximity to the ROW. The residents of these two homes may catch glimpses of the corridor, but probably would not see the entire alignment because of the nature of the rolling topography. From their vantage point the corridor would appear and then disappear as the topography changes. There is also a limited view while traveling east on E. Haystack Road. Section 2 is located within a narrow valley created by Abrams Gulch. The topography surrounding Abrams Gulch is steep and visibility into the gulch from the Eagle Ranch Subdivision is limited. The portion that is visible from the Eagle Ranch Subdivision is within the Town of Eagle city limits and in the golf course.

Short-term visual impacts due to the pipeline installation would occur within the project area. The existing landscape would change by exposing bare soil in the reclaimed previously disturbed right-of-way and within the temporary work areas. This would introduce contrasting elements within the landscape in the form of new lines, colors, and textures. The pipeline upgrade would increase the presence of heavy equipment, and vehicular traffic with an associated increase in dust pollution. Once the pipeline is installed, the right-of-way and temporary work areas would be recontoured and seeded.

Over the long-term the visual contrast between the Proposed Action and the surrounding landscape would begin to diminish as vegetation becomes established. The Proposed Action would meet the VRM Class II objective because it would have limited visibility to the casual observer and would not attract attention. The Proposed Action would not diminish the scenic quality rating for the area because it is predominantly within an existing previously disturbed right-of-way corridor and overtime the scenic quality may improve once vegetation becomes established.

No Action Alternative

No project-related impacts to visual resources would occur on BLM land, because the proposed pipeline upgrade would not occur.

However, the existing visual contrast between the existing previously disturbed right-of-way and the surrounding landscape would remain until the vegetation becomes established and begins to blend in over the long-term.

3.19. WASTES – HAZARDOUS OR SOLID

Affected Environment

The affected environment for hazardous materials includes air, water, soil, and biological resources that may potentially be affected by an accidental release of hazardous materials during transportation to and

from the project area, storage, and use in construction and operations. Sensitive areas for releases include areas adjacent to waterbodies and areas where humans or wildlife could be directly impacted.

BLM Instruction Memoranda numbers WO-93-344 and CO-97-023 require that all NEPA documents list and describe any hazardous and/or extremely hazardous materials that would be produced, used, stored, transported, or disposed as a result of a proposed project. The most pertinent of the Federal laws dealing with hazardous materials contamination are as follows:

- The Oil Pollution Act (Public Law 101-380, August 18, 1990) prohibits discharge of pollutants into Waters of the U.S., which by definition would include any tributary, including any dry wash that eventually connects with the Colorado River.
- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Public Law 96-510 of 1980) provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment. It also provides national, regional, and local contingency plans. Applicable emergency operations plans in place include the National Contingency Plan (40 CFR 300, required by section 105 of CERCLA), the Region VIII Regional Contingency Plan, the Colorado River Sub-Area Contingency Plan, and BLM's Hazardous Materials Contingency Plan.
- The Resource Conservation and Recovery Act (RCRA) (Public Law 94-580, October 21, 1976) regulates the use of hazardous substances and disposal of hazardous wastes. Note: While oil and gas lessees are exempt from RCRA, ROW holders are not. RCRA strictly regulates the management and disposal of hazardous wastes.

Emergency response to hazardous materials or petroleum products on BLM lands are handled through BLM's Contingency Plan. BLM would have access to regional resources if justified by the incident.

Environmental Consequences

Proposed Action

Possible pollutants that could be released during the construction phase of this project would include diesel fuel, hydraulic fluid, and lubricants. These materials would be used during construction of the pipeline and for refueling and maintaining equipment and vehicles. Potentially harmful substances used in the construction and operation phases would be kept onsite in limited quantities and trucked to and from the site as required. No hazardous substance, as defined by 40 CFR 355 would be used, produced, stored, transported, or disposed of in amounts above threshold quantities. Waste generated by construction activities would not be exempt from hazardous waste regulations under the oil and gas exploration and production exemption of RCRA. Exempt wastes would include those associated with transmission of natural gas through the gathering lines and the natural gas itself.

With the exception of produced hydrocarbons, ethylene glycol (antifreeze), lubricants, and amine compounds, chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act in quantities of 10,000 pounds or more would not be used, produced, stored, transported, or disposed of during construction or operation of the facilities. None of the chemicals used in construction meets the criteria for an acutely hazardous material/substance, or meet the quantities criteria per BLM Instruction Memorandum No. 93-344. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in amounts above threshold planning quantities would be produced, used, stored, transported, or disposed of during construction or operation of the facilities.

Solid waste, including human waste and trash, would be generated during construction activities. These would be appropriately stored onsite and periodically removed to a landfill or water treatment facility.

No Action Alternative

Under the No Action Alternative, the proposed pipeline upgrade would not be constructed. No project-related impacts associated with hazardous or solid materials as described above for the Proposed Action would occur on BLM. BLM management and currently permitted activities in the project area, and associated impacts, would continue. These would include activities and impacts associated with pipelines, access roads, recreation, and grazing.

3.20. WILDLIFE – TERRESTRIAL AND AQUATIC

AQUATIC ORGANISMS

Affected Environment

The existing pipeline corridor crosses Abrams Creek, a perennial stream and a tributary to Brush Creek. Fish surveys in the upper reaches of Abrams Creek conducted by CPW and BLM have documented a genetically pure population of the Green Lineage Colorado River cutthroat trout, as was discussed in the Federally Listed, Proposed, or Candidate Animals Species section of this document. Brush Creek has been documented to contain brown trout (*Salmo trutta*), brook trout (*Salvelinus fontinalis*), and rainbow trout (*Oncorhynchus mykiss*), all non-native but recreationally important sport fish.

Aquatic macroinvertebrates living in perennial streams such as Abrams Creek and Brush Creek during a portion of their lifecycles include larvae of stoneflies (Plecoptera), mayflies (Ephemeroptera), and some caddisflies (Trichoptera) 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 Abrams Creek and Brush 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 Abrams Creek and Brush Creek with fine substrates, aquatic macroinvertebrates are likely to support the larvae of certain true flies such as midges (Chironomidae) and mosquitoes (Cuculidae) as well as some species of 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.

Environmental Consequences

Proposed Action

Implementation of the Proposed Action has the potential to result in increases in erosion and sedimentation into nearby drainages and eventually the Colorado River.

Because the Proposed Action includes summer use of the project areas, it is likely that roads and pads would not be muddy for extended periods of time. Roads are generally drier and in better condition during the non-winter months and consequently less prone to erosion. Vehicular use during muddy road conditions could contribute to increased erosion of sediments into nearby ephemeral drainages and eventually the Colorado River. The potential increase in transport of sediments to ephemeral drainages and the Colorado River would be minimal given background sediment loads currently carried by these streams. Consequently, no sediment-intolerant aquatic wildlife species are known or expected to be present that would be negatively affected by the expected minimal amount of sediment transport.

Measures to minimize erosion and sedimentation of aquatic environments are included among the COAs (Appendix A).

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be no impacts to on any aquatic organisms on BLM lands. Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to aquatic organisms dependent on the alternative location chosen.

MIGRATORY BIRDS

Affected Environment

The Migratory Bird Treaty Act (MBTA) provides protections to native birds, with the exception of certain upland fowl managed by state wildlife agencies for hunting. Within the context of the MBTA, migratory birds include non-migratory resident species as well as true migrants. For most migrant and resident species, nesting habitat is critical for supporting reproduction in terms of both nest sites and food. Also, because birds are generally territorial during the nesting season, their ability to access and utilize sufficient food is limited by the quality of the occupied territory. During non-breeding seasons, birds are generally non-territorial and able to feed across a larger area and wider range of habitats.

The project area provides cover, forage, breeding, and/or nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. Migratory bird species that are federally listed or classified by the BLM as sensitive species are addressed in the Federally Listed, Proposed, or Candidate Animal Species section.

BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the BLM's responsibilities under the MBTA and the Executive Order 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality and to avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973." The *Birds of Conservation Concern 2008* (USFWS 2008) is the most recent effort to carry out this mandate. The CRVFO is within the Southern Rockies/Colorado Plateau Bird Conservation Region 16.

The project area includes the following plant communities and potentially associated migratory bird species:

Pinyon-juniper Woodlands. Pinyon and juniper trees provide food, cover and nest sites for numerous migratory birds. Species on the Birds of Conservation Concern (BCC) list that occur in the CRVFO and are associated with pinyon-juniper woodlands and known to nest in the project vicinity include the pinyon jay (*Gymnorhinus cyanocephalus*) and juniper titmouse (*Baeolophus ridgwayi*). Other migratory species associated with this plant community within the CRVFO include the broad-tailed hummingbird (*Selasphorus platycercus*), black-chinned hummingbird (*Archilochus alexandri*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), Townsend's solitaire (*Myadestes townsendi*), American robin (*Turdus migratorius*), western bluebird (*Sialia mexicana*), mountain bluebird (*S. currucoides*), , blue-gray gnatcatcher (*Polioptila caerulea*), plumbeous vireo (*Vireo plumbeus*), western

scrub-jay (*Aphelocoma californica*), , Virginia's warbler (*Oreothlypis virginiae*), chipping sparrow (*Spizella passerina*), lesser goldfinch (*Spinus psaltria*), and house finch (*Haemorhous mexicanus*). Winter visitors to pinyon-juniper habitats include Clark's nutcracker (*Nucifraga columbiana*) and Cassin's finch (*Haemorhous cassinii*), both BCC species that typically nest in coniferous forests at higher elevations in the mountains.

Sagebrush Shrublands. Sagebrush and the associated native perennial grasses and forbs provide food, cover and nest sites for migratory birds. Sagebrush obligates that potentially occur in the project vicinity include the Brewer's sparrow (*Spizella breweri*), a BCC species. Other migratory species associated with sagebrush shrublands within the CRVFO include the western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), green-tailed towhee (*Pipilo chlorurus*), vesper sparrow (*Pooecetes gramineus*), and lark sparrow (*Chondestes grammacus*). Some species are associated with both pinyon-juniper woodlands and sagebrush shrublands, including Say's phoebe.

Mixed Mountain Shrublands. The vegetation of mixed mountain shrublands varies substantially depending on elevation, slope, aspect, and soil. More mesic (moist) sites such as on north-facing slopes and along minor drainages are typically dominated by Gambel's oak and serviceberry, while more xeric (dry) sites such as south-facing slopes are typically dominated by mountain-mahogany, bitterbrush, snowberry, and sagebrush. The dense cover, tall height, and abundant acorns and berries of mesic oak-serviceberry stands provide cover, forage, and nesting habitat for numerous species including the broad-tailed hummingbird, mourning dove (*Zenaida macroura*), black-billed magpie (*Pica hudsonia*), western scrub-jay (*Aphelocoma californica*), Virginia's warbler (*Oreothlypis virginiae*), lazuli bunting (*Passerina amoena*), black-headed grosbeak (*Pheucticus melanocephalus*), spotted towhee (*Pipilo maculatus*), and green-tailed towhee. .

Raptors. Many raptors forage over wide areas, so even if they aren't known to nest in a specific area, they may still fly over searching for food. Raptors on the BCC list that occur in portions of the CRVO include the golden eagle (*Aquila chrysaetos*), bald eagle (*Haliaeetus leucocephalus*), ferruginous hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), peregrine falcon (*F. peregrinus*), and flammulated owl (*Psilosops flammeolus*). Prairie falcons nest on rocky ledges and cliffs and hunt in grasslands and semi-desert shrublands. Peregrine falcons hunt near nest sites and along rivers and lakes, but can be found in nearly any open vegetation community during migration and winter. Flammulated owls typically nest in ponderosa pine and aspen forests, but have been found nesting in mixed forests, and reportedly use old-growth pinyon-juniper woodlands.

A variety of raptors not on the BCC list are known to occur in the CRVO including the American kestrel (*Falco sparverius*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), red-tailed hawk (*Buteo jamaicensis*), long-eared owl (*Asio otus*), great horned owl (*Bubo virginianus*), northern pygmy-owl (*Glaucidium gnoma*), and northern saw-whet owl (*Aegolius acadicus*). The northern goshawk (*Accipiter gentilis*), a BLM sensitive species, is an occasional winter visitor to pinyon-juniper woodlands from its nesting habitat in montane and subalpine forests.

Environmental Consequences

Proposed Action

Direct impacts to migratory birds from the Proposed Action include the loss of approximately 12.04 acres of vegetation. This could displace some BCC and other migratory birds over the life of the project. However, the loss habitat along a narrow strip of which more than half is already a pipeline corridor would be less impactful in terms of both habitat loss and habitat fragmentation than an equal area of impact in a more equably shaped area. It is unlikely that the Proposed Action would directly affect vegetation suitable for nesting raptors. Therefore, while habitat loss and associated habitat fragmentation

may affect a small number of individual migratory or resident birds, these impacts would be insignificant at the population or species levels.

Construction activities during the nesting season could result in the destruction of active nests, including any eggs or young within the nests. The COA for BCC species would prevent the destruction of nests since it would prohibit surface-disturbing activities in suitable habitat from **May 15 to July 15** (Appendix A). Additionally, visual and noise disturbance near active nests could indirectly impact these species causing nest abandonment, nest failure, or reduced productivity. To reduce these potential impacts, raptor surveys would be conducted to identify active nests.

To protect nesting raptors, a survey shall be conducted prior to construction, drilling, or completion activities that are to begin during the raptor nesting season (February 1 to August 15). The survey shall include all potential nesting habitat within 0.125 mile of the pipeline. Results of the survey shall be submitted to the BLM. If a raptor nest is located within the buffer widths specified above, a 60-day raptor nesting TL will be applied by the BLM to preclude initiation of construction. The operator is responsible for complying with the MBTA, which prohibits the “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (Appendix A).

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be no impacts to on any migratory birds on BLM lands. Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to migratory birds dependent on the alternative location chosen.

OTHER TERRESTRIAL SPECIES

Affected Environment

Diverse plant communities across the CRVFO support a variety of terrestrial wildlife that summer, winter, or migrate through the area. Wildlife need to move across the landscape for food, cover and in response to seasonal conditions. Human development and activities have fragmented habitat, and in some cases, created barriers to wildlife movement. Factors contributing to wildlife disturbance or degradation and fragmentation of habitat include power lines, pipelines, fences, public recreation use, residential and commercial development, vegetation treatments, livestock and wild ungulate grazing, oil and gas development, fire suppression, roads and trails.

Big Game. Mule deer (*Odocoileus hemionus*) and Rocky Mountain elk (*Cervus elaphus nelsonii*) are recreationally important species that occur in the project area. BLM managed lands provide a large portion of the undeveloped habitat for big game in Colorado. Mule deer and elk typically occupy higher elevation, forested areas during summer and migrate to lower elevation sagebrush-dominated ridges and south-facing slopes during winter.

CPW maintains maps of habitat for big game and other wildlife species. The entire project area is mapped as mule deer and elk winter range with the majority of the area mapped as severe winter range and a winter concentration area for both species. Winter range is often considered the most limiting habitat type for mule deer, so effective management of these areas is particularly important to the health of deer populations.

Other Mammals. Numerous small mammals could reside within the planning area, including mice, woodrats, ground squirrels, chipmunks, rabbits and hares, and the porcupine (*Erethizon dorsatum*). Many of these mammals are prey for raptors and carnivores.

Small carnivores likely to occur are the striped skunk (*Mephitis mephitis*), western spotted skunk (*Spilogale gracilis*), raccoon (*Procyon lotor*), ringtail (*Bassariscus astutus*), and long-tailed weasel (*Mustela frenata*). Larger carnivores expected to occur include the bobcat (*Lynx rufus*) and coyote (*Canis latrans*). CPW has mapped the entire project area as mountain lion (*Felis concolor*) and black bear (*Ursus americanus*) habitat with the area around Third Gulch being mapped as a fall concentration area. Mountain lions are most likely to be in the vicinity when mule deer are present. Bats documented in Northwest Colorado that could occur in the CRVFO that are not on the BLM special status species list include the pallid bat (*Antrozus pallidus*), big brown bat (*Eptesicus fuscus*), spotted bats (*Euderma maculatum*), silver-haired bats (*Lasiorycteris noctivagans*), hoary bats (*Lasiurus cinereus*), California myotis (*Myotis californicus*), Western small-footed myotis (*M. ciliolabrum*), long-eared myotis (*M. evotis*), little brown myotis (*M. lucifugus*), long-legged myotis (*Myotis volans*), Yuma myotis (*M. yumanensis*), big free-tailed bats (*Nyctinomops macrotis*), canyon bats (*Parastrellus hesperus*), and Brazilian free-tailed bats (*Tadarida brasiliensis*).

Gallinaceous Birds. Game birds commonly found in the project area include dusky grouse (*Dendragapus obscurus*), and wild turkey (*Meleagris gallopavo*), and the non-native ring-necked pheasant (*Phasianus colchicus*). The project area is mapped as overall range for the wild turkey with the Third Gulch area mapped as winter range.

Reptiles. Reptile species most likely to occur in the project area include the sagebrush lizard (*Sceloporus graciosus*), plateau lizard (*S. virgatus*), tree lizards (*Urosaurus ornatus*), gopher snake or bullsnake (*Pituophis catenifer*), western terrestrial garter snake (*Thamnophis elegans*), and yellow-bellied racer (*Coluber constrictor*). Gopher snakes are found throughout Colorado in most plant communities, including riparian areas, semidesert and mountain shrublands, pinyon-juniper woodlands, and ponderosa pine and other montane woodlands. Western terrestrial garter snakes occur throughout most of western Colorado, usually below 11,000 feet. Smooth green snakes (*Opheodrys vernalis*) can be present in riparian areas, but in western Colorado may also be common in mountain shrublands far from water (Hammerson 1999).

Environmental Consequences

Proposed Action

The Proposed Action would result in the initial loss of 12.04 acres of vegetation, of which more than half is considered severe winter range or winter concentration areas for mule deer and elk. The project would adhere to seasonal restrictions that prohibit construction activities from **December 1 through April 30**. Pipeline installation is anticipated to occur from May through November. As a result, the project should have minimal impacts to the ability of deer and elk to use the general area along the ROW and in nearby habitats.

Avoidance of areas with otherwise suitable forage and cover would result in effective habitat loss. However, the amount of direct or indirect habitat loss associated with the Proposed Action would be minor in comparison to the overall availability of suitable habitat in the vicinity. Although some individuals would be subject to physiological or behavioral stress and potentially reduced survivorship or reproductive success, population-level impacts are not expected to be significant.

An additional potential impact on wildlife of the Proposed Action is the introduction and spread of weeds. Invasion by weeds has become an increasingly important concern associated with surface-disturbing

activities in the West. Roads often act as a conduit for their spread, particularly unpaved roads for which imported roadbase and gravel may contain large numbers of weed seeds associated with the areas where they were mined. Weeds often outcompete native plants, rendering an area less productive as a source of forage for wildlife. Implementation of the mitigation measures in the section on Invasive Non-Native Species would minimize the potential for invasion and establishment of weeds in the project area.

Construction and reclamation of the ROW would convert existing shrub-dominated communities to grass- and forb-dominated communities, with shrubs planted in any areas found to be supporting Harrington's penstemon. Conversion of shrubby habitats would reduce foraging, reproduction, and sheltering habitat for a number of species, including the black bear. Because no long-term human occupancy of the ROW would occur, few long-term indirect impacts associated with the project would reduce the availability and suitability of habitats. A protective surface-use COA (Appendix A) would be included to manage trash during construction and reduce the potential for conflicts with bears.

No Action Alternative

Under the No Action Alternative, the pipeline upgrade would not occur on BLM lands. Therefore, there would be no impacts to on any terrestrial wildlife species on BLM lands. Pipeline installation would likely occur in an alternative location on private lands, with the potential for impacts to terrestrial wildlife species dependent on the alternative location chosen.

4. CUMULATIVE IMPACTS

NEPA requires Federal agencies to consider the cumulative effects of proposals under their review. Cumulative effects are defined in the CEQ regulations 40 CFR §1508.7 as "...the impact on the environment that results from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions...." The following subsections describe past, present, and reasonably foreseeable actions known to BLM that may occur within the broader project vicinity.

The SourceGas natural gas pipeline upgrade in Eagle is part of a pipeline that extends from Rifle to Avon. The project location has no oil and gas development, but does have some infrastructure supporting the transmission of natural gas including the SourceGas Rifle to Avon 12-inch natural gas pipeline and the Rocky Mountain Natural Gas 6-inch Eagle to Cordillera natural gas pipeline. Recreational use including mountain biking, off-highway motorized travel and hiking is predominant in the project area. There are also some impacts associated with livestock grazing. There are no approved and reasonably foreseeable projects planned within the project area.

The approximate 12.04 acres of surface disturbance during construction of the Proposed Action would be cumulative to previous habitat loss or fragmentation and to elevated human presence. Long-term changes, primarily to vegetation communities, persisting beyond construction and early stages of revegetation would be cumulative to those associated with prior projects having similar impacts. Adverse cumulative impacts typically associated with pipeline projects include:

- Direct habitat loss, habitat fragmentation, and decreased habitat effectiveness
- Increased risk of adverse impacts to special status plant and animal species
- Expansion of noxious weeds and other invasive species
- Increased potential for runoff, erosion, and sedimentation of surface waters
- Increased fugitive dust from construction

- Increased gaseous emissions, including VOCs and priority pollutants from vehicles and equipment
- Increased potential for spills and other releases of chemical pollutants
- Increased noise, especially along access roads and staging areas
- Increased risk of damage to cultural and paleontological resources
- Decreased solitude and scenic quality

In addition to these adverse cumulative impacts are beneficial cumulative impacts, including the increased availability of a valuable and important commodity, increased direct and indirect employment, and sales taxes. Cumulative impacts associated with the Proposed Action would include those noted above for previous pipeline projects in the area and within the CRVFO. It should be also noted that new technologies and increasingly stringent Federal and State requirements have reduced the impacts of oil and gas development in recent years.

Of particular relevance to the current project are potential direct and indirect cumulative impacts to resources that represent a long-term loss or other changed condition. For some resources and uses, impacts would occur primarily or entirely during the 7 months of construction, while impacts to some other resources would extend a few additional years until disturbed areas are stabilized by establishment of suitable plant cover.

Resources and uses for which substantial cumulative impacts would generally be limited to the construction period include: Access and Transportation, Air Quality, Noise, Recreation, Socioeconomics, and Waste.

Resources and uses for which cumulative impacts would generally extend until reestablishment of a desirable, self-sustaining plant cover include: Grazing and Rangeland Management, Invasive Non-Native Species, Soils, Special Designations (ACEC), Visual Resources, and Water resources.

The following paragraphs address cumulative impacts to resources and uses for which impacts would extend over the long term, beyond initial revegetation success.

Cultural Resources. Although no known eligible sites are within the area of potential effect (APE), impacts from construction of the project, increased access, and the presence of project personnel could result in a range of impacts to known and undiscovered cultural resources in the vicinity of the project location. These impacts could range from accidental damage or vandalism to illegal collection and excavation.

Fossil Resources. Although there are no known fossil occurrences within 1-mile radius of the project. Impacts from construction of the project, increased access, and the presence of project personnel could result in a range of impacts to undiscovered paleontological resources in the vicinity of the project location. These impacts could range from accidental damage or vandalism to illegal collection and excavation.

Native American Concerns. No Native American concerns are known within the project area and none were identified during the inventories. Although the Proposed Action would have no direct impacts, increased access and personnel at the site could indirectly impact previously unidentified Native American resources ranging from illegal collection to vandalism.

Special Status Plant Species. No Federally listed threatened or endangered plants occur within 100 meters of the project. Nonetheless, some direct impacts to individual BLM sensitive plants were unavoidable. These effects would extend over the long term, although there would be some recolonization of disturbed areas following successful revegetation and reestablishment of relatively natural ecological processes. Additional plants located within 30 meters of the disturbance area would experience indirect impacts from project implementation. Such losses would be cumulative to losses associated with the pipeline upgrade on the Town of Eagle land. Cumulative impacts from unrelated activities include those associated with livestock grazing, habitat treatments to improve forage for livestock or big game, use of herbicides to control weeds, and off-road motorized and mechanized travel. Protections incorporated in the Proposed Action or applied by the BLM are expected to result in relatively minor incremental contributions to cumulative impacts to special status plants.

Wildlife. No Federally listed threatened or endangered wildlife species occur within the project area. Use of the project area by raptors, migratory birds, big game animals, and other wildlife would be temporarily affected during the 7 month construction period and, for most species, extending to a lesser degree until revegetation has substantially occurred. The greater impacts to wildlife during construction are associated with disruption by increased human presence, vehicle travel, and operation of heavy equipment.

5. PERSONS AND AGENCIES CONSULTED

- Colorado Parks and Wildlife
- Colorado State Historic Preservation Officer
- Town of Eagle
- Town of Eagle Open Space Coordinator
- SourceGas
- Olsson Associates

6. INTERDISCIPLINARY REVIEW

BLM personnel who participated in preparation or review of this EA are listed in Table 15.

Table 15. Interdisciplinary Review Team

<i>Name</i>	<i>Title</i>	<i>Area of Participation</i>
John Brogan	Archaeologist	Cultural Resources, Native American Religious Concerns
Vanessa Caranese	Geologist	Geology and Minerals, Groundwater, Paleontology
Allen Crockett, Ph.D., J.D.	Supervisory NRS	NEPA and Technical Review
Julie McGrew	Realty Specialist	NEPA Lead, Visual Resources
Judy Perkins, Ph.D.	Botanist	Invasive Non-native Species, Special Status Plants, Vegetation
Isaac Pittman	Rangeland Management Specialist	Range/Grazing
Sylvia Ringer	Wildlife Biologist	Migratory Birds, Special Status Species Animals, Aquatic and Terrestrial Wildlife
Greg Wolfgang	Outdoor Recreation Planner	Recreation and Travel Management
Carmia Woolley	Physical Scientist	Air Quality, Noise, Soils, Surface-water Resources

Participation by the BLM Interdisciplinary Team included conducting site visits to assess existing conditions, comparing proposed activities and locations with resource information in the BLM's corporate GIS database, interacting with the project proponent and its contractors to improve the project design, and identifying appropriate management actions and mitigation measures for avoiding, reducing, or offsetting adverse impacts, and ensuring compliance with the 2015 CRVFO ARMP/ROD.

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APPENDIX A - CONDITIONS OF APPROVAL (COAs)

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SURFACE-USE CONDITIONS OF APPROVAL
(Exhibit B to the ROW Grant)

General Surface-Use Conditions of Approval

The following surface-use COAs shall be implemented, where applicable and feasible, to reduce impacts from project activities. These COAs are in addition to any site-specific COAs presented following these general COAs. Wording and numbering of these COAs may differ from those included in NEPA (EA, SCX, etc.). In cases of discrepancies, the following COAs supersede earlier versions.

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.
2. Construction. The holder shall construct, operate, and maintain the facilities, improvements, and structures within the limits of the ROW granted and in conformity with the plan of development approved and made part of the grant amendment. Any relocation, additional construction, or use not in accord with the approved plan of development shall not be initiated without the prior written approval of the authorized officer. A copy of the complete ROW grant, including all stipulations and the approved plan of development, shall be made available on the ROW area during construction, operation, and termination. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.
3. Construction Control and Limit-of-Disturbance Staking. Construction control and limit-of-disturbance stakes shall be placed before construction and maintained in place to ensure conformance to the approved project plan. Any markers that are disturbed, displaced, or removed shall be repositioned or replaced before construction proceeds. Pipeline edges shall be marked by construction control stakes to ensure construction in accordance with the specifications. Stakes shall be visible from one to the next and be staked with no more than 100-foot stationing. Any missing or displaced stakes shall be promptly replaced before construction proceeds in proximity to the missing or displaced stakes.

The width of ROW clearing shall be minimized to avoid undue disturbance to vegetation. Where topsoil salvage and storage is not necessary, brush clearing shall be limited to removal of aboveground vegetation to avoid disturbance of root systems, reducing fugitive dust.

4. Survey Monuments. The holder shall protect all survey monuments found within the ROW. 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 impracticability of avoiding removal of a survey monument, a photographic record shall be made and submitted to the BLM, and the monument shall be re-placed in the same location following project completion. A civil survey shall be conducted of the monument to ensure precision in re-placing the monument.
5. As-Built Details. Within 30 days of completing construction, the holder shall submit to the BLM a digital “as-built” file that documents the actual boundaries of disturbance for the project. This

perimeter shall include all disturbance related to the pipeline upgrade and surface appurtenances. The digital depiction shall be in an ArcGIS-compatible format (shapefile or geodatabase), in NAD83, UTM coordinate system, Zone 13 North, in meters.

6. Other Required Approvals and Permits. This authorization is contingent upon compliance with all appropriate Federal, State, County, and local permits. The holder shall be responsible for obtaining all necessary environmental clearances and permits from all agencies (USACE, U.S. Fish and Wildlife Service, Colorado Department of Transportation, Colorado Department of Public Health and Environment, Colorado Oil and Gas Conservation Commission, Eagle County Road and Bridge Department, and Town of Eagle) before commencing any work under this permit. The holder shall assume all responsibility and liability related to potential environmental hazards encountered in connection with work under this permit.
7. Existing ROWs. The holder shall obtain agreements with all other existing ROW holders, pipeline operators, and other authorized holders prior to initiating any surface disturbance activity or other measure potentially affecting such holder's use of existing or approved aboveground or belowground infrastructure.
8. Hazardous Waste/Liability/Waste Disposal. The holder shall adhere to its *Spill Prevention, Control, and Countermeasure Plan* and shall comply with applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, 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. (See 40 CFR, Part 702799, and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1761.193.)

Any release (leaks, spills, discharges, etc.) of toxic substances 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, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or 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.
9. Fire. The holder shall adhere to its *Fire Safety and Evacuation Plan* and shall implement such additional measures as necessary to prevent fires on public and private land and may be held responsible for the costs of suppressing fires on public lands that result from the actions of its employees, contractors, or subcontractors. Range or forest fires caused or observed by the holder's employees, contractors, or subcontractors shall be reported immediately to the BLM Grand Junction Dispatch 970-257-4800. All fires or explosions that cause damage to property or equipment, loss of oil or gas, or injuries to personnel shall be reported immediately to the BLM Colorado River Valley Field Office at 970-876-9000. During conditions of extreme fire danger, surface-use operations may be restricted or suspended in specific areas, or additional measures may be required by the BLM.
10. Subsequent Maintenance and Repairs. The holder shall not initiate any construction or other surface-disturbing activities, including those associated with routine or other non-emergency repair or maintenance actions, within the limits of the ROW without prior written authorization of the BLM. Any notice to proceed shall authorize construction or use only as therein expressly stated and only for the particular location or use therein described.
11. Notice Prior to Termination. At least 90 days prior to termination of the ROW, the holder shall contact the BLM to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination and rehabilitation plan. This plan shall include, but is not limited to,

removal of surface facilities and recontouring and revegetation of any areas disturbed by the removal of surface facilities. Commencement of termination activities shall not occur without the prior written approval of the BLM.

12. Road Construction and Maintenance. Roads shall be crowned, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards. Initial gravel application shall be a minimum of 6 inches. The operator shall provide timely year-round road maintenance and cleanup on the access roads. A regular schedule for maintenance shall include, but not be limited to, blading, ditch and culvert cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than 6 inches, blading and/or gravelling shall be conducted as approved by the BLM.
13. 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 frequency and/or type of treatment if dust abatement measures are observed to be insufficient. In addition, construction activities for the pipeline would occur between the hours of 7:00 a.m. and 7:00 p.m. each day, a generally more favorable period for atmospheric dispersion due to warmer temperatures and less stable air.
14. Drainage Crossings. Construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., burying pipelines) shall be timed to avoid high-flow conditions, as well as substrates that are wet and muddy from recent flows. Construction that disturbs any flowing stream shall utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.

Pipelines installed beneath stream crossings shall be buried at a minimum depth of 4 feet below the channel substrate to avoid exposure by channel scour and degradation. Following burial, the channel grade and substrate composition shall be returned to pre-construction conditions.

15. Jurisdictional Waters of the U.S. The operator shall obtain appropriate permits from the U.S. Army Corps of Engineers (USACE) prior to discharging fill material into Waters of the U.S. in accordance with Section 404 of the Clean Water Act. Waters of the U.S. are defined in 33 CFR Section 328.3 and may include wetlands as well as perennial, intermittent, and ephemeral streams. Permanent impacts to jurisdictional waters may require mitigation. Contact the USACE Colorado West Regulatory Branch at 970-243-1199 ext. 14.
16. Wetlands and Riparian Zones. The operator shall reclaim temporarily disturbed wetlands or riparian areas. The operator shall consult with the BLM Colorado River Valley Field Office to determine appropriate mitigation, including verification of native plant species to be used in reclamation.
17. 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 reclamation are described below.
 - a. Reclamation Plans. In challenging reclamation areas, reclamation plans shall be required prior to ROW 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; timeline for drilling completion, interim reclamation earthwork, and 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 VRM area.

- b. Deadline for Interim Reclamation Earthwork and Seeding. Interim reclamation to reduce a well pad to the maximum size needed for production, including earthwork and seeding of the interim reclaimed areas, shall be completed within 6 months following completion of the last well planned to be drilled on that pad as part of a continuous operation. If a period of greater than one year is expected to occur between drilling episodes, BLM may require implementation of all or part of the interim reclamation program.

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 road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) 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 and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.

If requested by the project lead Realty Specialist for a ROW, the operator shall contact the Realty Specialist by telephone or email approximately 72 hours before reclamation and reseeded begin. This will allow the Realty Specialist to schedule a pre-reclamation field visit if needed to ensure that all parties are in agreement and provide time for adjustments to the plan before work is initiated.

The deadlines for seeding described above are subject to extension upon approval of the BLM based on season, timing limitations, 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 the pipeline. 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.

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 reseeded 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.

- 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 October 24, 2014).

For private surfaces the operator shall use a BLM-approved native seed mix unless specified otherwise by the private landowner.

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.

An exception to these seeding requirements shall be made for seeding of sagebrush and other small-seeded species such as alkali sacaton and sand dropseed. Sagebrush seeding shall occur prior to winter snowfall, or on top of snow. Sagebrush may be sown either by broadcast seeding, or, if not on snowpack, by placing the seed in the fluffy seed box of a seed drill, with the drop tube left open to allow seed to fall out on the ground surface.

If planning to drill seed, small seeds shall be packaged separately to allow for separate application. Small seeds shall be planted no deeper than 0.25 inch or broadcast.

If an entire site will be broadcast seeded, the small seeds may be mixed with the rest of the seed mix.

Drill seeders shall be cleaned to remove all remaining seed from previous use prior to adding seed for reclamation on BLM permitted sites.

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 in project areas within pinyon-juniper, sagebrush shrubland, and/or salt desert shrub habitat types. Mulch may consist of either hydromulch or of certified weed-free straw or certified weed-free native grass hay crimped into the soil. Straw mulch shall not be used within mountain shrub or spruce-fir forest habitat types, unless requested or approved by the BLM.

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 BMPs approved by the BLM. Additional BMPs such as biodegradable wattles, weed-free straw bales, or silt fences shall have be employed as necessary to reduce transport of sediments into the drainages. The BLM may, in areas with high erosion potential, require the use of hydromulch or biodegradable blankets/matting to ensure adequate protection from slope erosion and offsite transport of sediments and to improve reclamation success.
- i. Site Protection. The pad shall be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species are firmly established, whichever comes later. The seeded species will be considered firmly established when at least 50 percent of the new plants are producing seed. The BLM will approve the type of fencing.
- j. 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, including a description of the monitoring methods used, 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.
18. Weed Prevention and Control. To prevent the spread of invasive, species, all construction equipment and vehicles shall be power-washed, including the under-carriage, to remove all soil, mud, and vegetation material prior to entering the project area. Driving through or parking on weed infestations in the project area shall be avoided.

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, including GPS shapefiles of treatment areas and Pesticide Application Records (PARs) (see the letter provided to operators dated February 27, 2014), shall be submitted to the BLM by **December 1**.

19. Big Game Winter Range Timing Limitation. To minimize impacts to wintering big game, no construction, drilling or completion activities shall occur during a Timing Limitation (TL) period from **December 1 to April 30**.
20. 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).
21. Raptor Nesting. To protect nesting raptors, a survey shall be conducted prior to construction, drilling, or completion activities that are to begin during the raptor nesting season (February 1 to August 15). The survey shall include all potential nesting habitat within 0.25 mile of a well pad or 0.125 mile of an access road, pipeline, or other surface facility. Results of the survey shall be submitted to the BLM. If a raptor nest is located within the buffer widths specified above, a 60-day raptor nesting TL will be applied by the BLM to preclude initiation of construction, drilling, and completion activities during the period of **April 1 to May 30**. The operator is responsible for complying with the MBTA, which prohibits the “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (see COA for Migratory Birds).
22. Migratory Birds – Birds of Conservation Concern. Pursuant to BLM Instruction Memorandum 2008-050, all vegetation removal or surface disturbance in previously undisturbed lands providing potential nesting habitat for Birds of Conservation Concern (BCC) is prohibited from **May 15 to July 15**. An exception to this TL may 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 15 and continue into the 60-day period at the same location.
23. Ips Beetle. To minimize the potential for triggering or expanding an outbreak of the *Ips* beetle, the BLM may require any pinyon trees inadvertently damaged or intentionally trimmed during road, pad, or pipeline construction to be cut to the ground or grubbed from the ground and either chipped and buried in the toe of the fill slope or removed within 24 hours to a location approved by the Colorado State Forest Service.

Prior to authorizing use of any slash from pinyon pines for purposes of visual mitigation, erosion control, as a coarse mulch, or to impede travel along a pipeline route by off-highway vehicles, the BLM will inspect the affected stand for signs of *Ips* beetle infestation. No slash or pruned material from an infected stand shall be used for such purposes.

24. Paleontological 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.

25. 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 would be subject to prosecution.

If subsurface cultural values are uncovered during operations, all work in the vicinity of the resource will cease and the Authorized Officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the SHPO and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.

Pursuant to 43 CFR 10.4(g), the holder must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on Federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder must stop activities in the vicinity of the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains, funerary items, sacred objects, or objects of cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

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).

26. Visual Resources. The pipeline upgrade shall be installed to avoid or minimize visibility from travel corridors, residential areas, and other sensitive observation points—unless directed otherwise by the BLM due to other resource concerns—and shall be installed to maximize reclamation of the right-of-way.

To the extent practicable, existing vegetation shall be preserved when clearing and grading for the pipeline. The BLM may direct that cleared trees and rocks be salvaged and redistributed over the right-of-way.

Aboveground facilities shall be painted Shadow Gray to minimize contrast with adjacent vegetation or rock outcrops.

Site-Specific Conditions of Approval

Special Status Plant Protections

Harrington's Penstemon. The Operator shall incorporate the following steps to avoid and minimize impacts to Harrington's penstemon:

Pipeline Repairs and Replacement.

- a. Temporary fencing shall be installed at the edge of disturbance in all areas of ground disturbance areas located within 30 meters of any known Harrington's penstemon plants and unsurveyed Harrington's penstemon suitable habitat.
- b. A botany monitor, approved by the BLM, shall be present during installation of temporary fencing and during construction activities occurring within 30 meters of known Harrington's penstemon plants and unsurveyed Harrington's penstemon suitable habitat.
- c. If possible, ground disturbing activities shall occur outside of the Harrington's penstemon growing season of May through July. If this is not possible, dust control measures shall be implemented using only clean water with no additives.

Weed Control.

- a. Existing noxious weed infestations within and adjacent to any ground disturbance area shall be treated by spot-spraying prior to ground disturbance.
- b. A Pesticide Use Permit (PUP) specific to Harrington's penstemon sites shall be submitted to the BLM. Herbicide treatment of noxious weeds shall not occur within Harrington's penstemon habitat until approval of the PUP by the BLM.
- c. Chemical treatment of noxious weeds and other undesirable non-native plants shall be limited to spot spraying or wicking. No broadcast spraying shall be allowed in order to promote the reestablishment of Harrington's penstemon and other forbs and shrubs with which it co-occurs.

Reclamation. To promote re-establishment of Harrington's penstemon plants, and to prevent negative impacts from aggressive reclamation grasses, the following shall be implemented:

- a. A minimum of five grass, three forb, and one shrub species shall be included in the seed mix initially installed by drill-seeding or hydroseeding (**Table A-1**). Seeding shall be at the rate of 60 pure live seeds (PLS) per square foot if drill-seeded and 120 PLS per square foot if broadcast-seeded or hydroseeded where drill-seeding is impracticable. If hydroseeding is used, application of seeds shall be performed as a separate step from application of hydromulch.
- b. In addition, seeds of mountain big sagebrush (*Artemisia tridentata* ssp. *pauciflora*) and/or Wyoming sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) shall be collected from plants in the vicinity of the pipeline corridor and seeded within 6 months of collection. Sagebrush seeding shall occur prior to winter snowfall, or on top of snow. Sagebrush may be sown either by broadcast seeding, or, if not on snowpack, by placing the seed in the fluffy seed box of a seed drill, with the drop tube left open to allow seed to fall out on the ground surface.
- c. Mulch shall not be required, but may be used if it is both weed-free and seed-free. Mulch options shall include one of the following:
 - i. Native grass straw from nursery-grown native grasses. Species shall be native to northwestern or central Colorado. If this mulch source is used, the requirement for seed-free mulch shall be waived. The species and source shall be provided to the BLM, and application of this mulch shall not occur until after it has been approved by the BLM botanist.
 - ii. Hydromulch.
 - iii. Woody material obtained onsite from trees and shrubs removed during well pad and pipeline construction. If used, this material **shall be chipped**, and not hydro-axed.
 - iv. Wood straw.

Table A-16. Seed Mix for Initial Seeding of Harrington’s Penstemon Sites. ¹

<i>Common Name</i>	<i>Scientific Name</i>	<i>Variety</i>	<i>Season</i>	<i>Form</i>	<i>PLS lbs/acre*</i>
Choose Five Grasses (60% of Total PLS)					
Bluebunch Wheatgrass	<i>Pseudoroegneria spicata</i> , <i>Agropyron spicatum</i>	Anatone, Goldar	Cool	Bunch	2.5
Bottlebrush Squirreltail	<i>Elymus elymoides</i> , <i>Sitanion hystrix</i>	State Bridge if available; if not then native Colorado or Utah sources preferred	Cool	Bunch	1.7
Indian Ricegrass	<i>Achnatherum [Oryzopsis] hymenoides</i>	White River if available***; if not then Paloma, Rimrock	Cool	Bunch	1.9
Great Basin Wildrye	<i>Leymus [Elymus] cinereus</i>	UP* Cochetopa (Intermountain tetraploid only)	Cool	Bunch	2.4
Green Needlegrass	<i>Nassella [Stipa] viridula</i>	Native Colorado or Utah sources preferred	Cool	Bunch	1.7

<i>Common Name</i>	<i>Scientific Name</i>	<i>Variety</i>	<i>Season</i>	<i>Form</i>	<i>PLS lbs/acre*</i>
Muttongrass	<i>Poa fendleriana</i>	UP Ruin Canyon** if available; if not then native Colorado or Utah sources preferred	Cool	Bunch	0.4
Needle-and-thread Grass	<i>Hesperostipa [Stipa] comata</i>	Native Colorado or Utah sources preferred	Cool	Bunch	2.7
<i>Common Name</i>	<i>Scientific Name</i>	<i>Variety</i>			<i>PLS lbs/acre*</i>
Choose Three Forbs (30% of Total PLS)					
Arrowleaf Balsamroot (forb)	<i>Balsamorhiza sagittata</i>	Native Colorado or Utah sources preferred			4.8
Rocky Mountain Beeplant (forb)	<i>Cleome serrulata</i>	Native Colorado or Utah sources preferred			4.1
Fernleaf Biscuitroot (forb)	<i>Lomatium dissectum</i>	Native Colorado or Utah sources preferred			5.8
Lobeleaf Groundsel (forb)	<i>Packera multilobata</i>	Native Colorado or Utah sources preferred			0.3
Scarlet Gilia (forb)	<i>Ipomopsis aggregata</i>	Native Colorado or Utah sources preferred			0.8
Scarlet Globemallow (forb)	<i>Sphaeralcea coccinea</i>	Native Colorado or Utah sources preferred			0.5
Silverleaf Lupine	<i>Lupinus argenteus</i>	Native Colorado or Utah sources preferred			14.3
Sulphur Flower (forb)	<i>Eriogonum umbellatum</i>	UP Burn Canyon** if available; if not then native Colorado or Utah sources preferred			0.8
Utah Sweetvetch (forb)	<i>Hedysarum boreale</i>	Upper Colorado Environmental Plant Center*** if available; if not then native Colorado or Utah sources preferred			6.1
Use One Shrub (10% of Total PLS)					
Fourwing Saltbush (shrub)	<i>Atriplex canescens</i>	Native Colorado or Utah sources preferred			5.0
¹ Mountain big sagebrush (<i>Artemisia tridentata</i> spp. <i>pauciflora</i>) and/or Wyoming big sagebrush (<i>Artemisia tridentata</i> ssp. <i>wyomingensis</i>) shall be broadcast seeded into the reclaimed areas prior to snowfall using seeds collected adjacent to the well pad and along the pipeline corridor.					

***Based on 60 pure live seeds (PLS) per square foot, drill-seeded. Double this rate (120 PLS per square foot) if broadcast or hydroseeded.**

*Uncompahgre Project (UP), Kathy See, nativeplant@upartnership.org , 970-240-9498, 970-901-8247

UP seed - commercial growers/distributors:

Granite Seed, <http://www.graniteseed.com/> 888-577-5650

Southwest Seed, Walt Hennes, <http://www.southwestseed.com/> 970-565-8722

Benson Farms, Jerry Benson, <http://www.bfinativeseeds.com/> 509-765-6348

L & H Seed, Paul Herman, <http://www.lhseeds.com/> 509-234-1010

Seed-rite, Keith Schafer, <http://www.seedrite.com/> 509-982-2400

Bear Tooth Seed (was Heart Mountain Seed), Brian Duyck, 307-272-7779

**Upper Colorado Environmental Plant Center, Meeker, CO; 970-878-5003

Southwest Seed, Walt Hennes, <http://www.southwestseed.com/> 970-565-8722

Noise. The operator shall undertake measures to avoid unnecessary noise pollution, such as limiting unnecessary idling by heavy equipment and scheduling activities to minimize vehicle trips through or into Gypsum and Eagle on a daily basis. To reduce noise impacts to area residents and other users of the project vicinity, the BLM shall require that construction be limited to daytime hours (7:00 am to 7:00 pm), when background levels are generally higher and sensitivity to sound is less. Requests for exceptions to this requirement shall be made to the BLM via email (acrocket@blm.gov), with a rationale and detailed information on the location and duration of the exception.

Pipelines. All pipeline construction and maintenance shall follow the Gold Book Standards (USDI and USDA 2007) and requirements specified by the USACE as part of its authorization of the project under Section 404 of the Clean Water Act. Buried pipelines shall have a minimum cover of 4 feet at road and drainage crossings. SourceGas is responsible for burying the pipeline to a depth that safely accommodates existing land and road uses. At drainage crossings, the pipeline shall be constructed to withstand floods of extreme magnitude to prevent rupture and accidental contamination of runoff during high-flow events. Buried pipelines shall be reclaimed to final reclamation standards at the time of installation.

Soils and Erosion. Cuts and fills shall be minimized when working on slopes in excess of 30% and on fragile soils. Cut-and-fill slopes shall be stabilized through revegetation practices with an approved seed mix shortly following construction activities to minimize the potential for slope failures, erosion, and soil loss. Slopes adjacent to drainages shall be protected with BMPs designed to minimize sediment transport. The BLM may require the holder to utilize special construction or reclamation techniques to ensure subsequent slope stability and facilitate revegetation success.

Stormwater Management. The operator shall comply with its SWMP and shall install and maintain such other adaptive BMPs as necessary and appropriate for the location. Specific attention shall be given to avoiding or minimizing the transport of eroded soils and other surficial materials to drainages that could transport the eroded materials into perennial stream reaches. Stormwater BMPs may also serve in conjunction with the SPCC to reduce or avoid the transport of chemical pollutants spilled or released in proximity to drainages. Staging, refueling, and storage areas shall be located at least 300 feet from any reservoir, lake, wetland, or natural perennial or seasonally flowing stream.

Reclamation Preparation. An on-site pre-reclamation meeting shall be scheduled to review the reclamation process with the operator and contractor(s) prior to replacing any topsoil.

Vehicle Speeds. To minimize fugitive dust, associated risks to special status plants or their pollinators, and risks of injury or mortality of wildlife, the holder shall ensure that all project-related traffic adhere to a speed limit of 20 mph, or lower speed limit if posted by Eagle County or as directed by the BLM.

Access. Existing roads shall be used during all construction activities with travel along the ROW areas limited to the locations identified in the Plan of Development (POD).

To minimize impacts to visitors “Public Notices” shall be posted at all main access and entry areas. Notices must include a schedule of when the project is occurring, why the project is being done, who is doing it, location and extent (map), and what is proposed. Notice shall also be given to the Town of Eagle to ensure that no Special Recreation Permit (SRP) events are negatively impacted.

Designated trails shall remain open to public travel throughout the project area, including any routes that may be used for any Special Recreation Permits (SRP) to all the event(s) to occur during project construction.

To prevent future public use, temporary work areas and access points created along the ROW during construction shall be reclaimed, including blocking access by camouflaging entrances with slash and native material.

Road Maintenance. Roads used during implementation or completion of this project shall be restored to a condition consistent with BLM Gold Book standards, including restoration of proper crowns, ditches, water bars, and surface material, and as specified by Eagle County.

Hardscrabble Winter Closure. To protect winter wildlife and to avoid damage to roads, trails, and vegetation during wet conditions, the holder shall ensure that all project-related construction occurs outside of the Hardscrabble Area winter closure between April 16th and November 30th.

Saturated Soil Conditions. When saturated soil conditions exist on access road or along the ROW any type of construction shall be halted until soil material dries out or is frozen sufficiently for construction to proceed without undue damage and erosion to soils.

Grazing and Rangeland Management. Damage to range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided, but if they are damaged, SourceGas will immediately repair or replace them.

- Planned activities shall be coordinated with affected grazing permit holders.

<i>Allotment</i>	<i>Permittee</i>	<i>Contact</i>
West Hardscrabble Common (08504)	Loyd Gerard	Phone: (970) 524-7841
		Cell: (970) 471-5410
East Hardscrabble (08502)	Rio Jacober	Phone: (970) 963-9996
		Cell: (970) 319-0146

- Suitable fencing shall be installed (in consultation with BLM wildlife and range staff) to avoid overgrazing and to support successful reclamation. Salt licks and water tanks, which encourage animal congregation, will be placed away from revegetated disturbance.
- Livestock owners will be reimbursed for loss or damage to livestock resulting from the Proposed Action.

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**United States Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office, Colorado**

FINDING OF NO SIGNIFICANT IMPACT

**SourceGas LLC
Eagle Pipeline Upgrade
DOI-BLM-CO-N040-2015-0080-EA**

Based on the analysis of potential environmental impacts contained in the attached Environmental Assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the Proposed Action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

BACKGROUND

The Bureau of Land Management, Colorado River Valley Field Office (CRVFO), has prepared an Environmental Assessment (EA) that analyzes the effects of upgrading a segment of the Rifle to Avon 12-inch diameter natural gas pipeline on BLM land. The pipeline would continue to serve the customer base in the service area and would be in compliance with Federal pipeline operating requirements.

The site is located 3 air-miles south of the Town of Eagle in Eagle County, Colorado. The project was posted on the CRVFO NEPA website in August 2015 to invite public involvement. Eighty comments were received.

INTENSITY/SEVERITY

I have considered the potential intensity/severity of the impacts anticipated to accompany implementation of the Proposed Action in relation to each of the 10 areas suggested for consideration by the CEQ:

1. *Impacts that may be both beneficial and adverse.* This project would have short-term impacts to soils, vegetation, wildlife, and air quality during construction. These impacts are not significant and would decrease during long-term operation and maintenance activities. This project would have a long-term benefit by providing continued service to the customer base and being in compliance with Federal pipeline operating requirements.

2. *The degree to which the Proposed Action affects public health and safety.* The Proposed Action is not expected to have significant adverse impacts on public health and safety.

3. *Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.* The Proposed Action would not result in significant impacts to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. The project has been designed to avoid impacts or minimize impacts to other resources and uses, including visual resources and recreation. The project area does not include municipal water supplies and is not expected to impact groundwater aquifers used for domestic or agricultural purposes.

4. The degree to which effects on the quality of the human environment are likely to be highly controversial. Because of its relatively small scale and the duration of construction, environmental effects are not expected to be controversial.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. The construction of the buried pipeline is a common activity within the CRVFO, and currently unknown risks are not anticipated.

6. The degree to which the Proposed Action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. The decision is within the scope of the applicable Resource Management Plan. The decision does not represent a decision in principle about a future consideration.

7. Whether the Proposed Action is related to other actions with individually insignificant but cumulatively significant impacts. The Proposed Action would have no significant cumulative effects on the environment, either when combined with the effects created by past and concurrent projects, or when combined with the effects from natural changes taking place in the environment or from reasonably foreseeable future projects.

8. The degree to which the Proposed Action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources. The Proposed Action would have no adverse impacts to the above resources.

9. The degree to which the Proposed Action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. The Proposed Action incorporates the results of surveys for Federally listed, proposed, or candidate threatened or endangered plant and animal species and would have no effect on such species.

10. Whether the Proposed Action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. This decision complies with other Federal, State, or local laws and requirements imposed for the protection of the environment.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the information contained in the EA, and all other information available to me, it is my determination that: 1) the implementation of the Proposed Action or alternatives will not have significant environmental impacts beyond those already addressed in the "Record of Decision and Resource Management Plan" (2015); (2) the Proposed Action is in conformance with the Resource Management Plan; and (3) the Proposed Action does not constitute a major Federal action having a significant effect on the human environment. Therefore, an Environmental Impact Statement (EIS) or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of Council on Environmental Quality (CEQ) criteria for significance (40 CFR 1508.27) with regard to both the context and the intensity of the impacts described in the EA.



Karl Mendonca, Field Manager
Colorado River Valley Field Office

Date 4/13/2016

**United States Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office, Colorado**

DECISION RECORD

**SourceGas LLC
Eagle Pipeline Upgrade
DOI-BLM-CO-N040-2015-0080-EA**

DECISION: It is my decision to authorize the Proposed Action as described Section 2 of the attached EA (effects of upgrading an existing 12-inch natural gas pipeline on BLM land). The project area is located in the 6th PM, T. 5 S., R. 84 W., Sections 14 through 17.

This decision is contingent on meeting all mitigation measures and monitoring requirements presented in the Appendix (Surface-Use Conditions of Approval) of the EA. The project was posted on the CRVFO NEPA website on August 4, 2015.

The EA resulted in a Finding of No Significant Impact (FONSI) for the Proposed Action. Consequently, an Environmental Assessment Statement (EIS) is not required.

RATIONALE: The bases for this decision are as follows:

1. This decision will provide for the orderly, economical, and environmentally sound transmission and distribution natural gas.
2. The Proposed Action will follow an existing pipeline corridor.
3. Environmental impacts would be avoided, minimized, or offset with the mitigation measures incorporated into the Proposed Action or attached and enforced by BLM as COAs.
4. This Decision does not authorize the initiation of any surface-disturbing activities on BLM lands. Initiation of activities related to the pipeline upgrade may commence only upon approval by BLM of the Right-of-Way amendment.

MITIGATION MEASURES AND MONITORING: If the ROW grant amendment for the Rifle to Avon 12-inch natural gas pipeline upgrade by the proponents is approved as an outcome of this decision, the Surface-Use COAs provided in the Appendix of the attached EA would be attached to the ROW grant and enforced by the BLM. These protections would be in addition to any design features and best management practices to which the proponent committed in the Plan of Development (POD) included with the SF299.

PROTESTS AND APPEALS:

ROW-related decision: The decision related to the site right-of-way may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4. If an appeal is taken, your notice of appeal must be filed in the Bureau of Land Management, Colorado River Valley Field Office, 2300 River Frontage Road, Silt, Colorado 81652, within 30 days from receipt of this decision, if served a copy of the document, or otherwise within 30 days of the date of the decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 2801.10 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal must show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied.
- (2) The likelihood of the appellant's success on the merits.
- (3) The likelihood of immediate and irreparable harm if the stay is not granted.
- (4) Whether the public interest favors granting the stay.

NAME OF PREPARER: Julie McGrew, Realty Specialist, Colorado River Valley Field Office

DATE: 4/13/2016

SIGNATURE OF AUTHORIZED OFFICIAL:


Karl Mendonca, Field Manager
Colorado River Valley Field Office

DATE SIGNED: