

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

Section 390 Categorical Exclusions for Oil and Gas Development, Exclusion No. 4

NEPA LOG NUMBER: DOI-BLM-CO-N040-2015-0069-CX (390)

A. BACKGROUND

BUREAU OF LAND MANAGEMENT (BLM) OFFICE: Colorado River Valley Field Office (CRVFO), Silt, Colorado.

CASEFILE/PROJECT NUMBER: COC77107 and COC77107T

PROPOSED ACTION TITLE/TITLE: Proposal to install a 24-inch welded steel, buried, natural gas pipeline located on private land and land administered by the BLM 5.6 air-miles southwest of Rifle, Garfield County, Colorado.

APPLICANT: Red Rock Gathering Company, LLC (RRG). Contact: Tracey Jensen, 707 Wapiti Avenue, Suite 202, Rifle, CO 81650-3230.

LOCATION OF THE PROPOSED ACTION:

Sixth Principal Meridian, Colorado

T. 7 S., R. 94 W.,

Sec. 1, SE1/4SW1/4 and SW1/4SE1/4;

Sec. 9, Lot 7, NE1/4SW1/4, SE1/4SW1/4, NE1/4SE1/4, and NW1/4SE1/4;

Sec. 10, SE1/4NE1/4 and NE1/4SE1/4;

Sec. 11, SW1/4NE1/4, SE1/4NE1/4, SW1/4NW1/4, and SE1/4NW1/4;

Sec. 12, Lots 3 and 4, and SW1/4NW1/4.

DESCRIPTION OF PROPOSED ACTION:

RRG proposes to install a 24-inch-diameter, welded steel, buried, natural gas pipeline on private land and land administered by the BLM (**Figure 1**). The 24-inch natural gas pipeline would begin on private land at the existing Spruce Creek valve yard and proceed east to the existing Beaver Creek valve yard located on BLM-administered public land. The 24-inch natural gas pipeline would be 17,331 feet (3.28 miles) in length on BLM land and 4,682 feet (0.89 mile) on private land for a total of 22,013 feet (4.17 miles). RRG is requesting a 30-foot-wide permanent right-of-way and a 45-foot-wide temporary workspace for construction for a total of 38 acres of disturbance, with 30 acres of total surface disturbance on BLM land.

RRG is requesting a 30-year term for the pipeline, which would be used year-round for transport of natural gas. RRG proposes to begin construction during summer 2015. Construction of the pipeline would require approximately 4 months to complete.

DOI-BLM-CO-N040-2015-0069-CX (390)
 Spruce Creek to Beaver Creek 24-inch Gas Pipeline
 COC77107 and COC77107T
 Red Rock Gathering Company, LLC

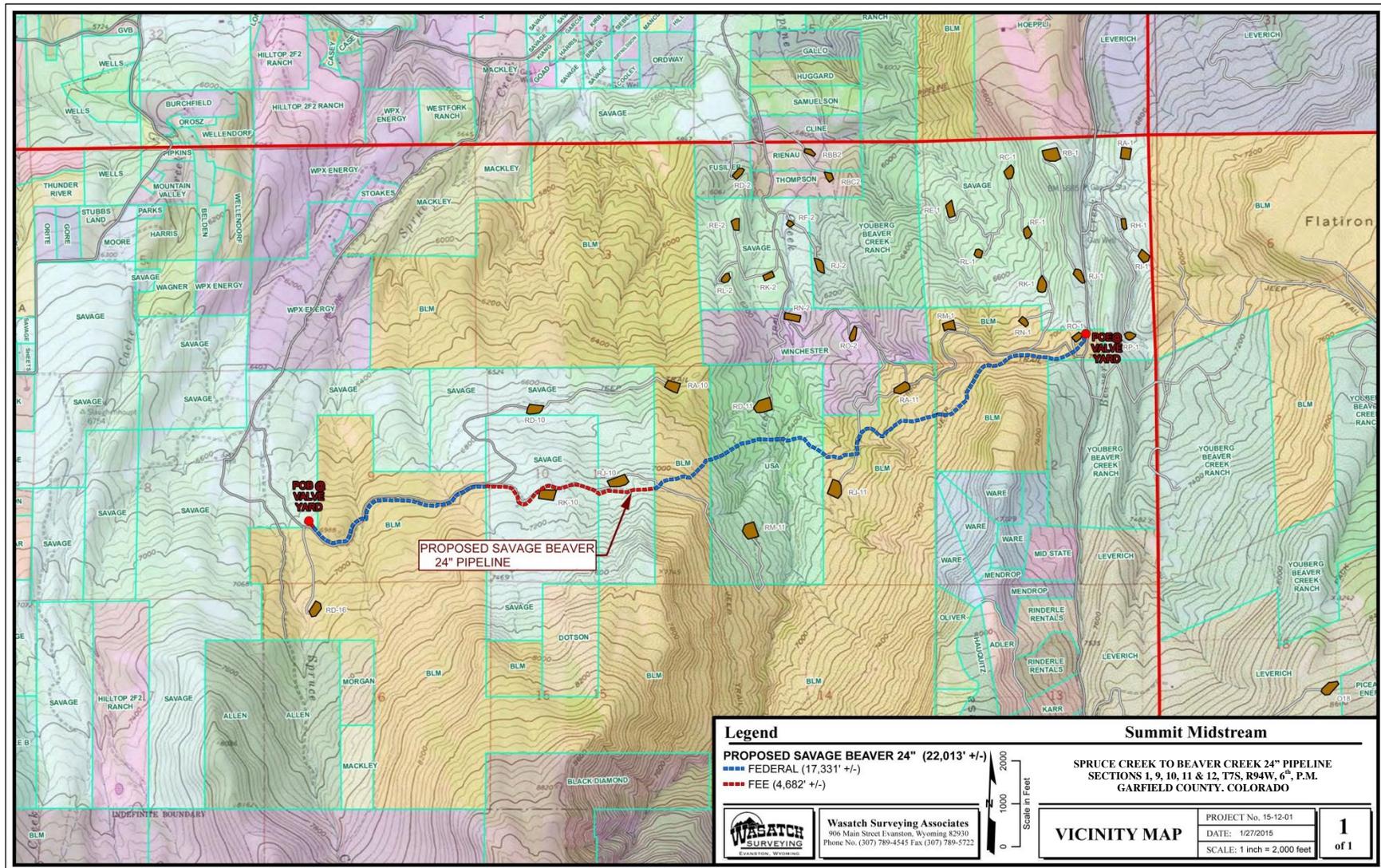


Figure 1. Proposed RRG Spruce Creek to Beaver Creek 24-inch Natural Gas Pipeline

Access to the right-of-way would be from existing oil and gas field access roads and County Road 317. Pipeline markers would be placed along the pipeline route as necessary in accordance with safety requirements. RRG would have a 24-inch launcher located at the Beaver Creek valve yard and at the Spruce Creek valve yard.

Construction

Prior to construction, final pre-construction surveys for noxious weed infestations and nesting raptors would be conducted along the construction workspace. The field results would be used to identify sensitive resource construction buffer areas and areas requiring special protective signs, flagging, or fencing.

Civil surveys would be performed to identify the centerline of the road and pipeline and the boundaries of both sides of the approved workspace before construction activities would commence. Flagged or painted lath would be set at intervals required to maintain a line of sight, along the proposed center line and the edges of the work limits. All four corners of each temporary use area would be marked by a flagged or painted lath. RRG's construction inspectors would be responsible for verifying that the limits of authorized construction work areas are staked prior to construction.

Clearing, Grading, and Salvaging Topsoil

Vegetation would be cleared and the construction workspace graded to provide for safe and efficient operation of construction equipment and vehicles, and to provide space for the storage of subsoil and topsoil. Construction activity and surface disturbance would be limited to the approved, staked areas.

Trees would be cut with a chain saw and/or mechanical shears and brush would generally be cut with a hydro-axe or similar equipment. Vegetative material would typically be chipped or shredded and incorporated into the topsoil. Stumps that are not shredded or chipped and incorporated into the topsoil would be removed and disposed at an approved disposal facility.

Topsoil would be salvaged where required by the BLM and landowners and protected along most of the pipeline route to facilitate revegetation of the construction workspace after construction is complete. On both private and BLM land, a depth of 6-inches would be removed from the right-of-way. Topsoil would be stockpiled separate from the 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. Topsoil and subsoil would be placed on the banks of the drainage. Gaps would be left periodically in the topsoil and subsoil windrow to avoid pooling and excess diversion of natural runoff during storm events.

Trenching and Blasting

Access would be provided for landowners and grazing permittees to move vehicles, equipment, and livestock across the trench when necessary. RRG would contact livestock permittees and would provide adequate crossing facilities as needed to ensure livestock are not prevented from reaching water sources because of the open trench.

The Contractor 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.

Blasting is not expected on BLM lands. Where rock formations are encountered and blasting is necessary on private lands, all necessary authorizations would be obtained and all safety precautions observed. All blasting work would be conducted in compliance with Federal, State, and local laws, rules, and regulations.

Excavated subsoil would be stored separate from windrowed topsoil piles. Subsoil would not be stored in flowing water bodies and dry drainages or washes that cross the construction workspace. Subsoil would be placed on the banks of the drainage. Gaps would be left periodically in the subsoil piles to avoid ponding and excess diversion of natural runoff during storm events.

Pipe Installation

The joints of pipe would be strung along the ditch 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 and clamped into position and welded in accordance with regulations and standards currently required for natural gas pipelines or water lines, as applicable. All welds would be visually inspected by a qualified inspector. Non-destructive radiographic inspection methods would be conducted in accordance with current requirements. A specialized contractor would be employed to perform this work. Any defects would be repaired or cut out as required under the specified regulations and standards.

To prevent corrosion, the pipe would be externally coated with fusion-bonded epoxy 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 ditch, the pipeline coating would be visually inspected and tested with an electronic detector, and any faults or scratches would be repaired.

Lowering-in and Padding of Pipeline

Before the pipe section is lowered into the ditch, an inspection would be conducted to verify that the pipe is properly fitted and installed in the ditch, minimum cover is provided, and the trench bottom is free of rocks and other debris that could damage the external pipe coating. Dewatering may be necessary where water has accumulated in the trench. The pipe sections would be simultaneously lifted in position over the ditch 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 ditch 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. No topsoil would be used to pad the pipe.

Backfilling of Trench

Backfilling would begin after a section of pipe has been successfully placed in the ditch and padded. Backfill would be conducted using a bulldozer or other suitable equipment. Backfilling the trench would generally use the subsoil previously excavated from the trench, except in rocky areas where imported select 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. Any excavated materials or materials unfit for backfill would either be utilized elsewhere or properly disposed in conformance with applicable laws or regulations.

Strength-Testing of Pipeline

The pipeline would be tested in compliance with necessary regulations. Prior to filling the pipeline for a hydrostatic or pneumatic test, each section of the pipeline would be cleaned by passing reinforced poly pigs through the interior of the line. Incremental segments of the pipeline would then be filled with water,

compressed air or nitrogen, pressurized, and held for the duration of the test. The length of each segment tested would depend on topography.

Cleanup and Restoration

Cleanup and restoration would occur after the pipeline is installed, and would begin after backfill activities are completed. Cleanup of the surface along the construction workspace and any temporary use areas would be performed by removing any construction debris and by performing final grading to the finished contour. Erosion control measures would be installed and seeding would be performed in accordance with fee-landowner and BLM requirements.

RRG 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-inch, covered with soil, and firmed to eliminate air pockets around the seeds. Broadcast seeding would be employed only 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, or blowers. 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.

All irrigation ditches, cattle guards, fences, and artificial and natural livestock and wildlife water sources would be repaired to at least pre-construction conditions.

Livestock Barrier and Other Livestock Issues

RRG would provide compensation or interim measures for any critical facilities (such as watering sites) that are disrupted during the construction or restoration process through prior agreements with grazing permittees or landowners. Temporary fencing would be installed as required by 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 utilized at maximum 1-mile intervals and at well-defined livestock and wildlife trails to facilitate passage of livestock across the construction workspace and to prevent livestock from becoming trapped in the trench.

B. LAND USE PLAN CONFORMANCE

The Proposed Action is subject to, has been reviewed for, and is in conformance with (43 CFR §1610.5 and § 2800, BLM 1617.3) the following plan:

Land Use Plan (LUP) Name: The current land use plan is the *Colorado River Valley Field Office Record of Decision and Approved Resource Management Plan (ROD/RMP)*.

Date Approved: June 12, 2015.

Determination of Conformance: The Proposed Action is subject to and has been reviewed for and is in conformance with (43 CFR §1610.5 and § 2800, BLM 1617.3) the CRVFO land use plan.

Decision Page and Language: Page 106, Lands and Realty, LRT-GOAL-01 – “Meet Public needs while for realty authorizations such as ROWs, renewable energy sources, permits, and leases when such needs are consistent with other resource values.” Page 106, Lands and Realty, 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.” Page 111, Fluid Minerals, MIN-OBJ-01 – “Facilitate orderly, economic and environmentally sound exploration and development of oil and gas resources...using the best available technology.”

C. COMPLIANCE WITH NEPA

Consistency with CX Category #4 (Table 1): “Placement of a pipeline in an approved right-of-way corridor, so long as the corridor was approved within (5) years prior to the date of placement of the pipeline.”

Table 1. Project Screening Questions		
1. Is the placement of the pipeline being proposed within an approved right-of-way corridor?	<u>Yes</u>	No
2. Will the placement of the proposed pipeline occur within 5 years after the existing right-of-way was approved?	<u>Yes</u>	No

NEPA Document Name: **Figure 2** identifies previous NEPA documents in relation to various segments of the proposed pipeline. These include the following:

- Encana High Mesa to Fox Pond 12-inch Water Pipeline: DOI-BLM-CO-N040-2014-0004-EA, Decision Record January 16, 2014; DOI-BLM-CO-N040-2013-0119 EA; ROW Authorization COC76300 issued July 29, 2014; pipeline has not been constructed.
- Bargath Kokopelli 16-inch Natural Gas Pipeline and WPX 6-inch Water Pipeline: DOI-BLM-CO-N040-2012-0028-EA, Decision Record June 18, 2012; EA amended and project deferred Decision Record August 7, 2012; ROW authorization COC75020 (natural gas pipeline) and COC75224 (water pipeline) issued August 7, 2012 and relinquished July 24, 2013.
- Spruce Creek to Mamm Creek 24-inch Natural Gas Pipeline: DOI-BLM-CO-N040-2009-0070-EA, Decision Record November 14, 2009; ROW Authorization COC73824 May 28, 2010; pipeline has not been constructed.

Congressional Notification:

The Mineral Leasing Act of 1920 provides that no pipeline right-of-way across Federal land for pipelines 24-inches or more in outside-pipe diameter may be granted until a notice of intention to grant has been given by the House Committee on Natural Resources and the Senate Committee on Energy and Natural Resources in accordance with 30 U.S.C. 185 (w). Congressional notification is a two-step procedure. The first step takes place upon receipt of an application. The second step occurs when the BLM has gathered sufficient information to determine if the grant should be issued (Notice of Intention to Grant). A request for Congressional Notification of application receipt was submitted June 9, 2015.

Persons and/or Agencies Consulted: RRG: Tracey Jensen, Cameron Bingham; Olsson and Associates: Eric Petterson.

Interdisciplinary Review: The Proposed Action was presented to the Colorado River Valley Field Office interdisciplinary team (See Table 2) on June 29, 2015.

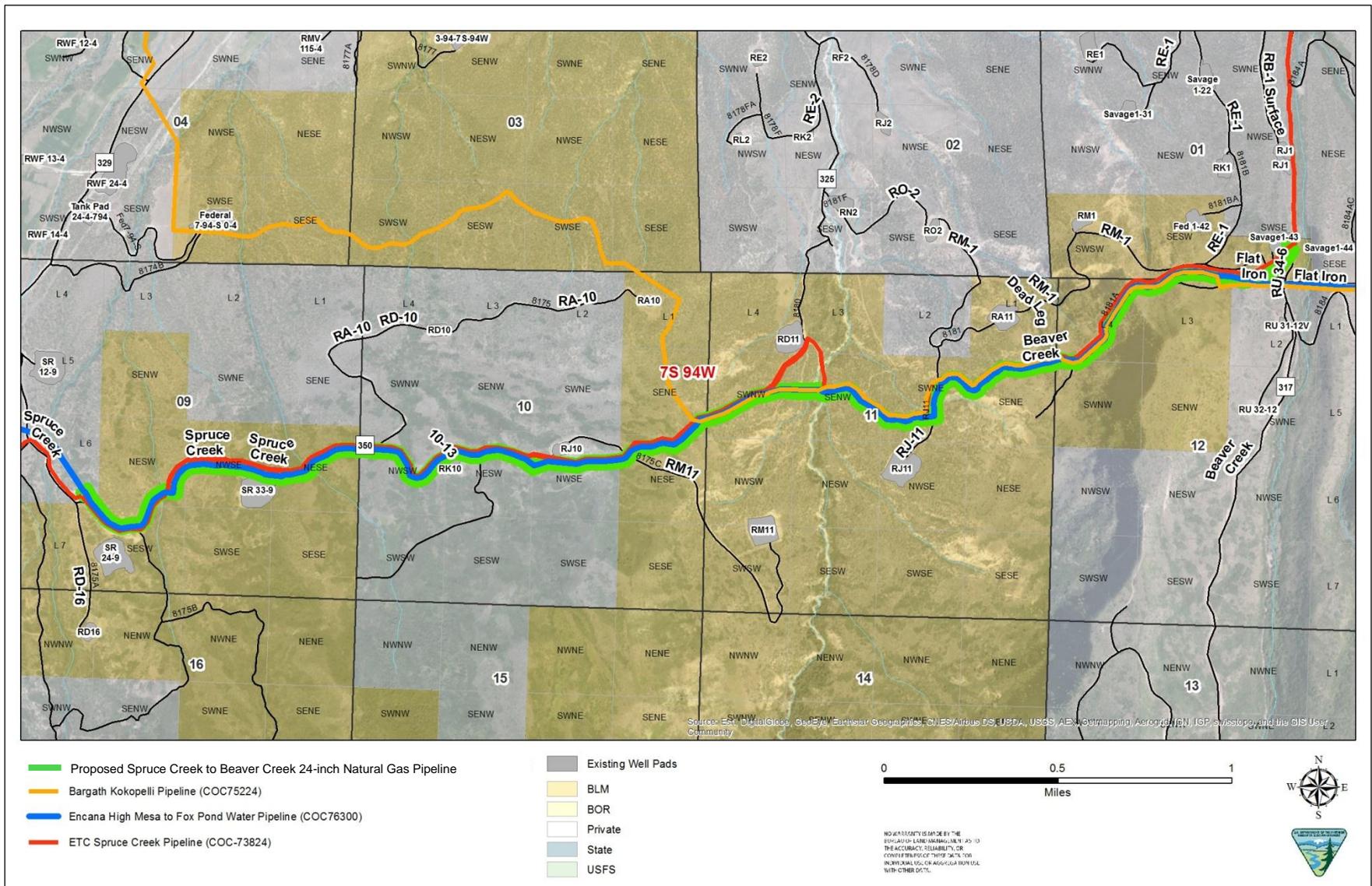


Figure 2. Previous NEPA in Relation to Proposed Spruce Creek to Beaver Creek 24-inch Natural Gas Pipeline

Botanical surveys for special status plants were conducted along the ROW corridor in June-August 2013 and June-July 2015. One BLM Sensitive plant species, Harrington’s penstemon (*Penstemon harringtonii*), occurs in patches along the proposed pipeline ROW. An estimated 926 Harrington’s penstemon plants occur within the ROW and would experience direct mortality during pipeline installation. An additional estimated 2,448 plants occur within 30 meters of the edge of disturbance, and would experience indirect impacts from increased dust deposition on leaves, increased negative impacts from noxious weeds and other non-native invasive species expected to increase in response to ground disturbance, potential indirect impacts from herbicide drift during chemical treatment of noxious weeds, and impacts to pollinators.

To mitigate these impacts to Harrington’s penstemon, Red Rock Gathering Company, LLC, would be required to fund a program consisting of pre-construction salvage of Harrington’s penstemon plants from the ROW, planting of the salvaged plant materials in nursery fields, and a 5-year grow-out for seed production at the Upper Colorado Environmental Plant Center, Meeker, Colorado. Seed produced from this salvage and grow-out would then be used for restoration of Harrington’s penstemon within the ROW. Additionally, a seed mix specific to Harrington’s penstemon habitat would be used for reclamation. Chemical weed treatments would be restricted to spot-spray only within 0.5 mile of Harrington’s penstemon plants to minimize impacts from herbicide drift. Specific mitigations are described in the attached stipulations.

Table 2. BLM Interdisciplinary Team Authors and Reviewers		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
John Brogan	Archaeologist	Cultural Resources, Native American Religious Concerns
Vanessa Caranese	Geologist	Geology and Minerals, Groundwater, Paleontology
Allen Crockett, Ph.D., J.D.	Supervisory NRS/Phys. Sci.	NEPA Review
Julie McGrew	Realty Specialist	Project Lead, Access & Transportation, Socioeconomics, Realty, Visual Resources
Judy Perkins, Ph.D.	Botanist	Invasive Non-native Species, Special Status Species (Plants), Vegetation
Sylvia Ringer	Wildlife Biologist	Migratory Birds, Special Status Species (Animals), Wildlife, Aquatic and Terrestrial
Carmia Woolley	Hydrologist	Air Quality, Noise, Soils, Surface Water, Waters of the U.S.

Mitigation: Conditions of Approval (COAs) to be attached as stipulations to the right-of-way authorization for the RRG Spruce Creek to Beaver Creek 24-inch natural gas pipeline are listed in Appendix A, an attachment to this Section 390 CX. The COAs/stipulations reflect updated surveys of selected sensitive resources (i.e., rare plants, cultural, and nesting raptors).

Name of Preparer: Julie McGrew, Realty Specialist Date Prepared: 6/25/2015

D. IMPLEMENTATION DATE

The approval of this grant/permit was categorically exempt from the requirements of NEPA through Section 390 (b)(4) of the Energy Policy Act of 2005. This subsection specifically states:

Placement of a pipeline in an approved right-of-way corridor, so long as the corridor was approved within five (5) years prior to the date of placement of the pipeline.

If construction activities associated with placement of the pipeline have not commenced by **July 29, 2019** (5 years after the earliest date on which any of the existing ROW grants applicable to this CX was issued), this grant/permit will be suspended, and the operator is to cease all operations related to constructing the pipelines.

E. SIGNATURE

The Proposed Action is statutorily categorically excluded from further NEPA documentation in accordance with Section 390 (b)(4) of the Energy Policy Act of 2005, which provides for such exclusion of: *Placement of a pipeline in an approved right-of-way corridor, so long as the corridor was approved within five (5) years prior to the date of placement of the pipeline.*

Authorizing Official: Allen B. Crockett Date: Nov. 10, 2015

F. DECISION AND RATIONALE FOR ACTION

I have decided to approve RRG's proposal to install a 24-inch diameter steel welded, buried natural gas pipeline located on private land and land administered by the BLM near Rifle, Garfield County, Colorado, with the stipulations identified in Appendix A of this CX. The stipulations are required by this decision and variance from these stipulations and during project implementation may require further NEPA review.

I have reviewed Section C. Land Use Plan Conformance and Compliance with NEPA, and have determined that the proposed activity is in conformance with the applicable land use plan(s) and referenced NEPA documents. I have also evaluated the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 has been correctly applied. I have determined that no further environmental analysis is required.

Allen B. Crockett
Allen B. Crockett, Ph.D.
Supervisory Natural Resource Specialist

Nov. 10, 2015
Date

G. ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES

This decision 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's 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, and
- (4) Whether the public interest favors granting the stay.

**Red Rock Gathering Company, LLC
Spruce Creek to Beaver Creek 24-inch Natural Gas Pipeline
(COC77107 and COC77107T)**

STIPULATIONS

GENERAL STIPULATIONS APPLICABLE TO PIPELINE CONSTRUCTION AND OPERATION ACTIVITIES

1. **Administrative Notification.** The holder shall contact the authorized officer at least 48 hours prior to the anticipated start of construction and/or any surface disturbing activities. The authorized officer may require and schedule a preconstruction conference with the holder prior to the holder's commencing construction and/or surface disturbing activities on the right-of-way. The holder and/or his representative shall attend this conference. The holder's contractor, or agents involved with construction and/or any surface disturbing activities associated with the right-of-way, shall also attend this conference to review the stipulations of the grant including the plans(s) of development.
2. **Implementation Date.** If construction activities associated with the placement of the pipeline have not commenced by **July 29, 2019** (5 years after the earliest date on which any of the existing ROW grants applicable to this CX was issued), the grant/permit will be suspended and the operator is to cease all operations related to constructing the pipeline.
3. **Construction.** The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the plan(s) of development which was (were) approved and made part of the grant. Any relocation, additional construction, or use that is not in accord with the approved plan(s) of development, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete right-of-way grant, including all stipulations and approved plan(s) of development, shall be made available on the right-of-way 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.

The holder shall not initiate any construction or other surface disturbing activities on the right-of-way without the prior written authorization of the authorized officer. Such authorization shall be a written notice to proceed issued by the authorized officer. Any notice to proceed shall authorize construction or use only as therein expressly stated and only for the particular location or use therein described.

4. **As-Built Survey.** An "as-built" center line survey of the right-of-way crossing Federal land, provided by a Certified Land Surveyor licensed to work in the State of Colorado, shall be provided to the BLM within 2 months of completion of the project.
5. **Other Required Approvals and Permits.** This authorization is contingent upon receipt of and compliance with all appropriate Federal, State, County and local permits. The operator shall be responsible for obtaining all necessary environmental clearances and permits from all agencies (U.S. Army Corps of Engineers, Colorado Parks and Wildlife, U.S. Fish and Wildlife Service, Colorado Department of Transportation, Colorado Department of Public Health and Environment, Garfield County Road and Bridge, and City of Rifle) before commencing any work under this permit. Without all clearances and permits, this permit shall not be in effect. The operator shall assume all responsibility and liability related to potential environmental hazards encountered in connection with work under this permit.

6. Hazardous Waste/Liability/Waste Disposal. The holder(s) shall comply with all 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 right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117, shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 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 authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
7. Road 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 travel way becomes greater than 6 inches, blading and/or gravelling shall be conducted as approved by the BLM.
8. Dust Abatement. The operator shall implement dust abatement measures as needed to prevent fugitive dust from vehicular traffic, equipment operations, or wind events. The BLM may direct the operator to change the level and type of treatment (watering or application of various dust agents, surfactants, and road surfacing material) if dust abatement measures are observed to be insufficient to prevent fugitive dust.
9. Drainage Crossings and Culverts. Construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g., burying pipelines, installing culverts) shall be timed to avoid high flow conditions. 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. Streams shall be crossed perpendicular to the channels.

Culverts at drainage crossings shall be designed and installed to pass a 25-year or greater storm event. On perennial and intermittent streams, culverts shall be designed to allow for passage of aquatic biota. The minimum culvert diameter in any installation for a drainage crossing or road drainage shall be 24 inches. Crossings of drainages deemed to be jurisdictional Waters of the U.S. pursuant to Section 404 of the Clean Water Act may require additional culvert design capacity. Due to the flashy nature of area drainages and anticipated culvert maintenance, the U.S. Army Corps of Engineers (USACE) recommends designing drainage crossings for the 100-year event. Contact the USACE Colorado West Regulatory Branch at 970-243-1199.

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.

10. Jurisdictional Waters of the U.S. The operator shall obtain appropriate permits from the 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 Waters of the U.S. may require mitigation. Contact the USACE Colorado West Regulatory Branch at 970-243-1199.
11. 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 areas that have low reclamation potential, reclamation plans will be required prior to grant approval. The plan shall contain the following components: Detailed reclamation plans, which include contours and indicate irregular rather than smooth contours as appropriate for visual and ecological benefit; 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 minimum 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, the 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 the BLM approves otherwise based on weather. If pipeline construction occurs discontinuously (e.g., in segments) 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. The 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.

The operator shall contact the Realty Specialist by telephone or email approximately 72 hours before reclamation and reseeding 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 the construction of pipelines. In areas of thin soil, a minimum of the upper 6 inches of surficial material shall be stripped. The BLM may specify a stripping depth during the onsite visit or based on subsequent information regarding soil thickness and suitability. The stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation.
- d. Seedbed Preparation. For cut-and-fill slopes, initial seedbed preparation shall consist of backfilling and recontouring to achieve the configuration specified in the reclamation plan. For compacted areas, initial seedbed preparation shall include ripping to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping shall be conducted in two passes at perpendicular directions. Following final contouring, the backfilled or ripped surfaces shall be covered evenly with topsoil.

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

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

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

- e. Seed Mixes. A seed mix consistent with BLM standards in terms of species and seeding rate for the Pinyon-Juniper Woodland and/or Mountain/Wyoming Big Sagebrush Shrubland, and Mixed Mountain Shrub habitat types 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 the 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. 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 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. 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 be employed as necessary to reduce transport of sediment into drainages. The BLM may require the use of hydromulch or biodegradable blankets/ matting to ensure adequate protection from slope erosion and offsite transport of sediment and to improve reclamation success.
- i. Monitoring. The operator shall conduct annual monitoring surveys of all sites categorized as “operator reclamation in progress” and shall submit an annual monitoring report of these sites, 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.
12. Noxious Weeds. **Before any mobilization of equipment onto public lands**, in order to prevent the spread of invasive species, the operator shall perform inspections to insure that all construction equipment and vehicles are pressure-washed so as to be clean and free of soil, mud, and vegetative material. The operator shall provide copies of such cleaning and inspections upon request by the BLM. Vehicles and equipment shall avoid driving through or parking on weeds.

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**.

13. 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, shall be coordinated with the BLM project lead and BLM wildlife biologist and the USFWS representative to the BLM Field Office (970-876-9051).
14. 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 June 1**. 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).

If project-related activities are initiated within the specified buffer distance of any active nest, even if outside the 60-day TL period specified in this COA, the operator remains responsible for compliance with the MBTA with respect to a “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (see COA for Migratory Birds).

15. 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 audial survey for diagnostic vocalizations in conjunction with a visual survey for adults and nests. Surveys shall be conducted by a qualified breeding bird surveyor between sunrise and 10:00 AM under favorable conditions for detecting and identifying a BCC species. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated prior to May 1 and continue into the 60-day period at the same location.

16. 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**.
17. Fossil Resources. All persons associated with operations under this authorization shall be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with operations under this authorization any of the above resources are encountered the operator shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM of the findings. The discovery must be protected until notified to proceed by the BLM.

Where feasible, the operator shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM of any finds. The BLM would, 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.

18. 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 operator 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).

19. Windrowing of Topsoil. Topsoil shall be windrowed to create a berm that limits and redirects stormwater runoff and extends the viability of the topsoil per BLM Topsoil Best Management Practices (BLM 2009 PowerPoint presentation available from the Colorado River Valley Field Office). Topsoil shall also be windrowed, segregated, and stored along pipelines and roads for later spreading across the disturbed corridor during final reclamation. Topsoil berms shall be promptly seeded to maintain soil microbial activity, reduce erosion, and minimize weed establishment.
20. Range Management. Range improvements (fences, gates, reservoirs, pipelines, etc.) shall be avoided during development of oil and natural gas resources to the maximum extent possible. If range improvements are damaged during exploration and development, the operator will be responsible for repairing or replacing the damaged range improvements. If a new or improved access road bisects an existing livestock fence, a steel frame gate(s) or a cattleguard with associated bypass gate shall be installed across the roadway to control grazing livestock.
21. Visual Resources. Facilities shall be placed 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 placed to maximize reshaping of cut-and-fill slopes and interim reclamation of the right-of-way.

All above-ground facilities shall be painted **Shadow Gray** to minimize contrast with adjacent vegetation or rock outcrops.

PROJECT-SPECIFIC STIPULATIONS APPLICABLE TO THIS PROJECT

Realty Authorizations.

Agreements with Other Holders. Potential impacts to the existing BLM ROWs from lease operations or by the rights-of-way would be mitigated based on written maintenance and use agreements between Red Rock Gathering, LLC and the existing ROW holders. Such agreements shall be obtained and verified with the BLM prior to any disturbance or construction across or adjacent to an existing right-of-way.

Restoration of Beaver Creek Grass Mesa Ditch. Prior to initiating construction across or alongside this ditch, representatives of Red Rock Gathering, LLC, BLM and the ditch owners shall meet at the site, identify the ditch course and identify specific reclamation measures following pipeline construction so the ditch course is well-established and allowed to flow freely without impediments. Pipeline locations and marking along this stretch of ditch course and pipeline right-of-way will be required prior to any surface disturbance.

Monuments. The holder shall protect all survey monuments found within the right-of-way. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder shall immediately report the incident, in writing, to the authorized officer and the respective installing authority if known.

Where General Land Office or Bureau of Land Management right-of-way monuments or references are obliterated during operations, the holder shall secure the services of a registered land surveyor or a Bureau cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the Manual of Surveying Instructions for the Survey of the Public Lands in the United States, latest edition. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the Bureau cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost.

Special Status Plant Protections. The Operator shall incorporate the following steps to avoid and minimize impacts to Harrington's penstemon:

Mitigation for Mortality.

Prior to initiation of pipeline construction, Red Rock Gather Company, LLC shall pay **\$20,000** to the Upper Colorado Environmental Plant Center (UCEPC), Meeker, Colorado, for whole plant salvage of Harrington's penstemon plants growing within the ROW, planting of salvaged plants in UCEPC fields, 5 years of plant grow-out, and seed harvest and cleaning. Seed produced from this salvage and grow-out shall be used to restore Harrington's penstemon within the ROW, or for other restoration projects if approved by the BLM.

Pipeline Maintenance, Repairs, or Replacement. If practicable, ground-disturbing associated with routine maintenance, repairs, or replacement shall be limited to the initially disturbed area and shall be scheduled to occur outside the Harrington's penstemon growing season of **May through July**. If this period cannot be avoided, dust control shall be implemented using only clean water with no additives, and revegetation shall comply with requirements for the initial revegetation, unless superseded by new BLM requirements.

Weed Control.

- a. To the extent practicable depending on season, 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 reestablishment 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. 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 is not required but may be used if it is both weed-free and seed-free. Mulch options shall include one of the following:
 - i. 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.
 - ii. Wood straw.
 - iii. 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.**
 - iv. Hydromulch.

Table A-1. Seed Mix for Initial Seeding of Harrington’s Penstemon Sites. ¹					
Common Name	Scientific Name	Variety	Season	Form	PLS lbs/acre ²
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
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

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

<i>Common Name</i>	<i>Scientific Name</i>	<i>Variety</i>	<i>PLS lbs/acre²</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
<p>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.</p> <p>² Based on 60 pure live seeds (PLS) per square foot, drill-seeded. Double this rate (120 PLS per square foot) if broadcast or hydroseeded.</p> <p>*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.bfnative-seeds.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</p> <p>**Upper Colorado Environmental Plant Center, Meeker, CO; 970-878-5003 or Southwest Seed, Walt Hennes, http://www.southwestseed.com/ 970-565-8722</p>			