

**U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641**

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2010-0219-EA

CASEFILE/PROJECT NUMBER: COC 73932 - proposed natural gas pipelines;
COC 73932-01 - proposed temporary work areas;
COC 73933 - proposed water lines

PROJECT NAME: Ryan Gulch Gathering Project-Ryan Ridge Project

LEGAL DESCRIPTION: Sixth Principal Meridian, Colorado

T2S, R98

678'	Section 7: SESE
4,034'	Section 8: N2SW, SWSW, NWSE
6,566'	Section 18: Lots 2, 3, 4, N2NE, E2NW

T2S, R99W

1,673'	Section 13: E2SE
5,364'	Section 23: S2SW, N2SE, SWSE
5,528'	Section 24: N2NE, SWNE, S2NW, NWSW
888'	Section 26: NWNW
2,953'	Section 27: NE

APPLICANT: Bargath Inc.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: Bargath, Inc. (Bargath) is requesting two new Federal rights-of-way (ROWs) and a temporary use permit in order to construct pipelines that would transport natural gas and produced water throughout the Ryan Gulch Unit. If granted, these pipelines would connect various pipelines and facilities in the area and ultimately deliver produced natural gas to the Ryan Gulch Plant located in Section 7, T2S, R97W, and the Sagebrush Plant located in Section 27, T2S, R99W, for treatment, compression, and eventual delivery to regional natural gas transporters. Water lines included in this Proposed Action would gather produced water within the Ryan Gulch Unit for delivery to a treatment facility and then transport treated water and distribute it to various locations within the Ryan Gulch Unit. Bargath is also requesting three small above grade pipeline facilities on Federal lands.

Proposed Action: Bargath is requesting ROWs to construct various natural gas pipelines and water lines. Bargath is proposing to install approximately 5.24 miles (approximately 27,684 total feet) of buried natural gas gathering pipelines and produced water pipelines on public land. Bargath also requests three parcels for above-grade pipeline facilities, each approximately 0.46 acres in size, located on Bureau of Land Management (BLM) lands. A general location map of the project area (Figure 1) and a map of specific project components (Figure 2) are attached.

Pipelines: Bargath's proposal is described as Corridors 6 and 7. Corridor 7 is further broken down into two sub-corridors, due to pipeline size changes along the proposed alignment (see Appendix A, Figure 2). Detailed descriptions are described as follows:

Corridor 6: Water Fork to Ryan Ridge Fork

This corridor would begin at a location known as Water Fork in the NWSE of Section 8, T2S, R98W. One 16-inch low-pressure natural gas pipeline, one 16-inch high pressure natural gas pipeline, and three water lines would travel southwest paralleling County Road 68 and an existing pipeline corridor. This route would continue until pipeline Corridor 6 diverges from the road ROW in the NWNE of Section 24, T2S, R99W and travels southwest cross country to a terminus known as Ryan Ridge Fork, located within the SWNE of Section 24.

Corridor 7-1: Ryan Ridge Fork to Sagebrush Plant

This corridor would begin at a location known as Ryan Ridge Fork in the SWNE of Section 24, T2S, R99W, the end of Corridor 6. From the Ryan Ridge Fork one 10-inch high pressure natural gas pipeline, one 16-inch low pressure natural gas pipeline, and three water lines would continue a short distance southwest cross country where the pipelines would meet again with County Road 68 and an existing pipeline corridor. From here, the five lines generally follow the road and existing pipeline disturbance to the Sagebrush Plant Site in the NENE of Section 27, T2S, R99W.

Corridor 7-2: Sagebrush Plant to Fed 299-27-5 Well Location

This corridor would begin at the Sagebrush Plant Site in the NENE of Section 27, T2S, R99W, the end of Corridor 7-1. From the Sagebrush Plant one water line would continue and travel adjacent to existing roads and pipeline corridors to the existing Federal 299-27-5 disposal well location in the SWNE of Section 27, T2S, R99W.

Gas pipelines would be coated steel pipes 10 and 16 inches in diameter and both high and low pressure (740 Pounds per Square Inch Gauge (PSIG) and 1,440 PSIG maximum allowable operating pressure). They would be buried with a minimum cover of 36 inches (would be buried 60 inches when buried in the same trench as the water lines) and would transport only natural gas. Where subsurface rock is encountered, some blasting may be required to excavate the pipeline trench.

The water lines will utilize the same trench that would be dug for the natural gas pipelines. All water lines would be buried to a minimum of 60-inch depth of cover. The water lines would range in size from 4 to 10 inches in diameter and would only be used to transport produced water. The 4-inch water lines would be constructed of high-density polyethylene (HDPE) plastic pipe and the 10-inch water lines would be constructed of PE4710 plastic pipe. Maximum allowable operating pressure for the water lines would range between 320 PSIG and 740 PSIG.

Pressure testing of pipelines would utilize nitrogen, fresh water, or produced water. During construction an estimated 1.16 acre-ft of fresh water would be utilized for dust abatement activities. An estimated maximum of 1.16 acre-feet of fresh water could be used for pressure-testing of gas and water pipelines. The maximum total fresh water usage would be 2.32 acre-feet.

The estimated pipeline construction time would be 30 to 45 days (weather dependent). Pipeline construction would commence upon grant of ROW (summer of 2011). As a consequence of the Proposed Action and construction of the water lines, truck traffic hauling produced water to the disposal well would be reduced by 80 percent to 90 percent.

Above Grade Pipeline Facilities: Bargath would locate above-grade pipeline facilities at three sites (100 feet by 200 feet for each facility) within the pipeline ROW. Above grade facilities include: pig receivers and launchers, terminal valves, blow off valves, water tanks, water valves and water pumps, and by-pass piping systems for metering, gas analysis and flow control purposes. The three sites on public land are:

- 1) Ryan Ridge Fork Site located in SWNE Section 24, Township 2 South, Range 99 West.
- 2) Sagebrush Plant Site located in SENE Section 27, Township 2 South, Range 99 West.
- 3) Federal 299-27-5 Site located in SWNE Section 27, Township 2 South, Range 99 West.

Temporary Use Areas: Bargath requests a Temporary Use Permit (TUP) of 85-feet for the initial construction phase on proposed Corridors 6 and 7-1, and 65-feet TUP on proposed Corridor 7-2. The request includes several areas for extra workspace along the ROW. A description of the areas for extra workspace is included in the plan of development (POD), which is available for review in the case file located at WRFO. Bargath requests a 50-foot permanent ROW width for all corridors once installation and reclamation are completed.

Table 1 describes permanent and temporary acreages that would be disturbed on Federal lands for the proposed project.

Table 1. Permanent and temporary acreage disturbance for the Ryan Ridge project on public land

Project Component		Temporary Use Areas (acres)	Permanent ROW (acres)	Total Disturbance (acres)
Pipeline Corridors on Federal Lands		29.0	31.8	60.8
<i>Corridors</i>	<i>Length</i>			
<i>Corridor 6 (gas & water lines)</i>	<i>15,472</i>	<i>16.1</i>	<i>17.8</i>	<i>33.9</i>
<i>Corridor 7-1(gas & water lines)</i>	<i>10,159</i>	<i>10.6</i>	<i>11.7</i>	<i>22.3</i>
<i>Corridor 7-2 (water line)</i>	<i>2,053</i>	<i>2.3</i>	<i>2.3</i>	<i>4.6</i>
Above Grade Pipeline Facilities		N/A	1.4	1.4
Total acreage disturbance				62.2

Stabilization/Rehabilitation Measures Common to All Sites: Topsoil would be removed for storage from all sites at a minimum depth of 6 inches for storage along the ROW and left undisturbed until being re-spread for reclamation.

Soil storage areas would be clearly marked to restrict vehicle/equipment use to only what is necessary to move the soil. Metal fence posts, construction fencing, construction barriers, or other physical barriers would be placed at regular intervals between the working surfaces and soil storage areas. Storing soil on the non-working side of the trench may be adequate if it is signed or given some type of visual indicator to limit physical impacts.

Under no circumstances would topsoil or subsoil excavated from the trench down to the effective rooting depth (ERD) for the reclamation plants (Reclamation ERD) be used as padding in the trench, to fill sacks for trench breakers, or for any other use as construction material. Reclamation ERD would be a minimum of 16 inches and a maximum of 24 inches below the ground surface for all soils.

Fill material will be returned to the pipeline trenches and compacted appropriately to reduce the likelihood of trench settling or erosion. The pipeline trenches will be monitored and maintained to minimize settling and/or erosion control.

After pipeline construction, cut and fill slopes will be re-graded in order to restore the disturbed ROWs to their original contours.

Seeding of the disturbed ROWs would be performed within an acceptable timeframe as determined by the BLM. A BLM-approved seed mix would be applied in order to establish permanent wind and water erosion protection, and to create a self-sustaining vegetative community. Prior to seed application, the seedbed shall be prepared via tilling the soil to a minimum depth of 4 inches by utilizing a disk or harrow. In all accessible areas, seeding will be accomplished using a rangeland drill. Seed shall be drilled to a depth of 0.25 inch to 0.50 inch. In areas where a rangeland drill cannot access, seed would be hand broadcasted at twice the drill rate, and harrowed to provide an adequate degree of soil to seed contact.

Upon reseeding activities, certified, weed-free straw mulch would be crimped into the surface of the disturbed ROWs to provide for additional site stability, and to enhance soil/seedbed moisture retention.

All temporary and permanent, structural and non-structural storm water Best Management Practices (BMPs) would be installed and maintained as outlined in the Storm Water Management Plan (SWMP) for the Proposed Action. An associated BMP map would be included in the SWMP to address specific storm-water management practices to be employed during the construction and reclamation phases of the Ryan Ridge pipeline corridors. All storm-water management activities would be performed in accordance with the Colorado Department of Public Health and Environment (CDPHE), Colorado Discharge Permit System, Permit No. COR030000.

Monitoring of the reclaimed ROWs would be performed to document site stability, desired vegetative establishment, and noxious weed occurrence. Storm-water compliance inspections

will be performed every 14 calendar days during construction and every 30 calendar days during interim reclamation.

Reclamation monitoring efforts would be performed, and the results of the respective monitoring program would be submitted to the BLM in the form of a Reclamation Monitoring Report that is submitted to the BLM by September 30th of each year. The purpose of this report would be to provide a description and photo-documentation of the projects, to provide information such as reclamation status, date reseeded, acres reseeded, percent re-vegetated, noxious weed presence, and other applicable comments. Bargath would employ any necessary additional reclamation and/or weed management efforts based on the results of the reclamation monitoring, and would ensure that the BLM is notified prior to the respective activities.

No Action Alternative: The application would be denied. No pipeline or associated facilities would be constructed on public land. If the water lines are not constructed, water would continue to be hauled by truck to Williams' disposal well.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None.

NEED FOR THE ACTION: The purpose of the action is to provide access for natural gas and water pipelines across public land managed by the BLM. The need for the action is established by the BLM's responsibility under Federal Land Policy and Management Act of 1976 (FLPMA) and Minerals Leasing Act (MLA) to respond to a request for a ROW grant for legal access. The BLM will decide whether to grant the ROW or not, and if so, under what terms and conditions.

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

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-49

Decision Language: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered (T & E) species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES

AIR QUALITY

Affected Environment: The Proposed Action is located in rural northwest Colorado in the White River Basin, more than ten miles from designated air quality management areas (including PSD Class I or non-attainment areas). Such designated areas may require special consideration from the air quality regulatory agencies of Colorado Department of Public Health and Environment (CDPHE) and the U.S. Environmental Protection Agency (EPA). The air quality criteria pollutant likely to be most affected by the Proposed Action is the level of inhalable particulate matter, specifically particulate matter ten microns or less in diameter (PM₁₀) associated with fugitive dust. Although no air-quality monitoring data is available for the project area, the Colorado Air Pollution Control Division (APCD) estimates the PM₁₀ levels (24-hour maximum) in rural portions of western Colorado to be generally less than 50 micrograms per cubic meter (µg/m³). This estimate is well below the National Ambient Air Quality Standard (NAAQS) for PM₁₀ (24-hour average) of 150 µg/m³ (CDPHE-APCD 2010).

Environmental Consequences of the Proposed Action: The construction of the proposed pipelines would result in short-term, local impacts on air quality during and after construction due to dust created by excavation, vehicle traffic, wind erosion, and potential blasting. However, airborne particulate matter would not exceed Colorado air-quality standards on an hourly or daily basis. Following successful re-vegetation of the pipeline ROWs, airborne particulate matter should return to near pre-construction levels.

Environmental Consequences of the No Action Alternative: None.

Mitigation: The pipeline ROW and access roads would be treated with water or a BLM-approved chemical dust suppressant during construction activities so that there is not a visible dust trail behind vehicles and/or construction equipment. Only water needed for abating dust should be applied; the water should be fresh water free of chemicals, oils, or solvents.

Seeding disturbed surfaces as set forth in the *Vegetation* section would, once vegetation is established, also reduce airborne dust from wind erosion.

SOILS (includes a finding on Standard 1)

Affected Environment: The proposed project's soil disturbances would occur between the elevations of 6,700 ft and 7,100 ft. The soils occur in a location that, on average, annually receives 14 to 18 inches of precipitation and has between 80 and 105 frost-free days. Within the project's disturbance area, six soil types have been classified by the National Resource Conservation Service (Tripp et al. 1979 and NRCS 2010). Table 2 identifies the soil types and some of their key characteristics.

There are no fragile soils associated with this project as described by BLM (BLM 1997).

Table 2: Soil Types within the Ryan Ridge Project Area

Soil Map Unit	Soil Type*	Slope %	Drainage Class	Available Water Capacity	Depth to Bedrock (inches)	Soil Erodibility
33	Forelle loam (3-8%)	3-8	Well Drained	High	>60	Moderate
34	Forelle loam (8-15%)	8-15	Well Drained	Moderately High to High	>80	Moderate
64	Piceance fine sandy loam	5-15	Well Drained	Moderately Low	20-40	Moderate to High
70	Redcreek-Rentsac complex	5-30	Well Drained	Very Low	10-20	Moderate
73	Rentsac channery loam	5-50	Well Drained	Very Low	10-20	Moderate
75	Rentsac-Piceance complex	2-30	Well Drained	Low	10-20	Moderate

* From U.S. Department of Agriculture, Rio Blanco Soil Survey (Tripp et al. 1979)

Environmental Consequences of the Proposed Action: Construction of the pipelines and three above grade parcels would require removal of vegetation, disturbance of soils (Table 3), grading practices resulting in cut-and-fill slopes, and possibly blasting of bedrock along the pipeline corridors (Figure 2). These construction activities have the potential to increase soil erosion, decrease soil health, initiate mass wasting, and deplete the project area of productive soils capable of supporting native vegetation on a maximum of 62.2 acres. Table 3 is a description of soil disturbance by soil type.

Table 3: Ryan Ridge Pipeline Project Soil Disturbance by Soil Type

Soil Map Unit	Soil Types	Approximate Acreage of Soil Disturbance
33	Forelle loam (3-8%)	2.4
34	Forelle loam (8-15%)	1.6
64	Piceance fine sandy loam	6.8
70	Redcreek-Rentsac complex	42.6
73	Rentsac channery loam	3.0
75	Rentsac-Piceance complex	5.8

Access for pipeline construction would need to be developed within the project's ROW. No new roads outside of the project ROW would be constructed and no improvements are anticipated on existing roads. The majority of traffic and all substantial traffic associated with pipeline construction would access the site from Rio Blanco County Road 68; no road improvements are necessary for pipeline construction.

After pipeline-construction activities have been completed and the pipelines have become operable, 1.4 acres would remain as above grade pipeline facilities for the life of the pipelines. No other roads would remain after pipeline construction activities are complete along portions of

the pipelines passing through public lands. There is the potential for unintended vehicle use along the pipeline ROW, resulting in a long-term 2-track road.

In areas where soil is shallow, blasting may be necessary and would change the topography. The topography of the route and associated above grade facilities would be slightly flatter, in general, after the pipelines are installed and the trenches are filled. However, slopes will be re-graded as much as possible in order to restore the disturbed ROWs to their original contours.

Fill material will be returned to the pipeline trenches and compacted appropriately to reduce the likelihood of trench settling or erosion. The pipeline trenches will be monitored and maintained to minimize settling and/or erosion.

Environmental Consequences of the No Action Alternative: None.

Mitigation: See mitigation recommended in the *Vegetation* section.

During pipeline construction, the ROW should remain undisturbed to the maximum extent possible. That is, only the minimum necessary disturbance is approved for making the working surface safe and passable. Topsoil will not be removed under areas used for the storage of soils and, if possible, topsoil will not be removed from working surfaces. Material below or adjacent to the trench spoils will not be used to feed pipeline padding machines.

All areas where the topsoil has been removed and soils have become compacted will be ripped to a depth of 18 inches below the finished grade or to bedrock. Another suitable method of de-compaction may be used before topsoil is re-spread with approval of the BLM Authorized Officer (AO). Areas where the topsoil has not been removed, but have been compacted, must be de-compacted by disking or other methods to prepare the soils for reclamation.

After initial construction activities are completed and if soil productivity is diminished from its pre-disturbance condition, then reseedling, hydro-mulching, or other efforts will be initiated to re-establish soil productivity during reclamation activities.

In order to protect rangeland health standards, erosion features such as rilling, gullying, piping, and mass wasting on the ROW or adjacent to the ROW as a result of this action, will be addressed immediately after observation by contacting the AO and submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.

After pipeline-construction activities are completed, Bargath will be responsible for taking measures to prevent off-road vehicle use along the pipeline ROW until reclamation has been successful or as directed by the AO.

All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the AO.

Finding on the Public Land Health Standard for upland soils: Soils within the area of the Proposed Action meet the criteria established in the standard for upland soils. With the application of mitigating measures and successful reclamation, the Proposed Action would continue to meet Land Health Standard 1.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored, or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: The proposed activities will use regulated materials and will generate some solid and sanitary wastes. The potential for harm to the environment is presented by risks associated with spills of fuel, oil and/or hazardous substances during oil and gas operations. Accidents and mechanical breakdown of machinery are also possible.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The right-of-way holder shall comply with all Federal, State and/or local laws, rules, and regulations addressing the emission of and/or the handling, use, and release of any substance that poses a risk of harm to human health or the environment.

The holder shall employ, maintain, and periodically update to the best available technology(s) aimed at reducing emissions, fresh water use and hazardous material utilization, production and releases.

All substances that pose a risk of harm to human health or the environment shall be stored in appropriate containers. Fluids that pose a risk of harm to human health or the environment, including but not limited to produced water, shall be stored in appropriate containers and in secondary containment systems at 110% of the largest vessel's capacity. Secondary fluid containment systems, including but not limited to tank batteries shall be lined with a minimum 24 mil impermeable liner.

Where required by law or regulation to develop a plan for the prevention of releases or the recovery of a release of any substance that poses a risk of harm to human health or the environment, provide a current copy of said plan to the Bureau of Land Management's White River Field Office.

Construction sites and all facilities shall be maintained in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

As a reasonable and prudent right-of-way holder, acting in good faith, the holder will report all emissions or releases that may pose a risk of harm to human health or the environment, regardless of a substance's status as exempt or nonexempt and regardless of fault, to the Bureau of Land Management's White River Field Office at (970) 878-3800.

As a reasonable and prudent right-of-way holder, acting in good faith, the holder will provide for the immediate clean-up and testing of air, water (surface and/or ground) and soils contaminated by the emission or release of any substance that may pose a risk of harm to human health or the

environment, regardless of that substance's status as exempt or non-exempt. Where the holder fails, refuses or neglects to provide for the immediate clean-up and testing of air, water (surface and/or ground) and soils contaminated by the emission or release of any quantity of a substance that poses a risk of harm to human health or the environment, the Bureau of Land Management's White River Field Office may take measures to clean-up and test air, water (surface and/or ground) and soils at the lessee/holder's expense. Such action will not relieve the holder of any liability or responsibility.

With the acceptance of this authorization, the commencement of development under this authorization, or the running of thirty calendar days from the issuance of this authorization, whichever occurs first, and during the life of the pipeline, the holder, and through the holder, its agents, employees, subcontractors, successors and assigns, stipulates and agrees to indemnify, defend and hold harmless the United States Government, its agencies, and employees from all liability associated with the emission or release of substances that pose a risk of harm to human health or the environment.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface Water: The pipeline corridors run along Ryan Ridge, which divides the intermittent drainages of Ryan Gulch and Stake Springs Draw. No perennial streams would be crossed by this project (WWE 2009 and WWE 2010). Stake Springs is a tributary to Yellow Creek, which forms to the north, approximately 2.8 miles from the pipeline tie-in (T2S, R98W, Section 8) and is the closest perennial stream. Ryan Gulch is a tributary to Piceance Creek, approximately 6.1 miles to the east. See Figure 1 for general water feature locations.

The Proposed Action is generally located in the White River Basin and the Piceance-Yellow Creek watersheds (HUC 14050006). The White River is a tributary to the Green River (in Utah), which is ultimately a tributary to the Colorado River. Ryan Gulch is located within stream segments 14b, 15, and 16 of the White River Basin. Stake Springs Draw is in segment 13a, the main stem of Yellow Creek (CDPHE-WQCC 2010a). There are no approved Total Maximum Daily Loads (TMDLs) for this watershed and no waters listed as impaired (USEPA 2010).

The CDPHE Water Quality Control Commission (WQCC) Regulation No. 37, Classifications and Standards for the Lower Colorado River Basin, includes water quality standards and guidance for the surface waters of the project area. Stream segment 13b has been classified by the State for the following uses: Warm Aquatic Life 2, Recreation Primary Contact Use is Not Attainable (N), and Agriculture. Physical and biological standards for these segments are: dissolved oxygen = 5.0 mg/l, a pH of 6.5 to 9, and E. coli = 630/100ml. Stream segment 14b has been classified by the State for the following uses: Cold Aquatic Life 1, Recreational Potential Primary Contact Use (P), and Agriculture. Physical and biological standards for these segments are: dissolved oxygen = 6 mg/l except where salmonid fish are present then the standard is 7 mg/l, a pH of 6.5 to 9, and E. coli = 205/100ml. Stream segment 15 has been classified by the State for the following uses: Warm Aquatic Life 2, Recreational Potential Primary Contact Use (P), and Agriculture. Physical and biological standards for this stream segment are: dissolved oxygen=5.0 mg/L, a pH of 6.5 to 9, and E. coli=205/100mL. Stream segment 16 has been

classified by the state for the following uses: Warm Aquatic Life 2, Potential Primary Contact Use (P), and Agriculture. Physical and biological standards are: dissolved oxygen = 5 mg/l, a pH of 6.5 to 9, and E. coli = 205/100ml.

The 305(b) report (CDPHE-WQCC 2008), the 303(d) list (CDPHE-WQCC 2010b), and the White River ROD/RMP (BLM 1997) were reviewed to see if any water quality concerns have been identified for the above mentioned stream segments. All stream segments that would be potentially impacted by the Proposed Action are listed by the State as currently meeting water quality standards.

Ground Water: A review of the US Geological Survey (USGS) Ground Water Atlas of the United States (HA 730-C) was done to assess groundwater resources at the location of the Proposed Action. The shallowest bedrock aquifer underlying the Proposed Action is the Uinta-Animas aquifer, which in this area consists of the Uinta Formation and the Parachute Creek member of the Green River Formation. Colorado has not set site-specific standards for groundwater quality for the proposed project area (CDPHE – WQCC 2006).

Environmental Consequences of the Proposed Action: Construction of pipelines could result in temporary exposure of soils to erosional processes until the site has been stabilized. Heavy equipment used during construction combined with the removal of groundcover could increase erosive potential due to runoff (overland flows) and raindrop impact during storm events.

Increases in erosion from this site could impact water quality downstream of Ryan Gulch at Piceance Creek and Stake Springs Draw downstream at Yellow Creek. However, using BMPs and proper storm-water management there should be no adverse effects to the nearby streams.

The closest distance from the proposed pipelines to Ryan Gulch is approximately 2,385 feet and from Stake Springs Draw to the proposed pipelines is approximately 5,820 feet (Figure 2). After successful reclamation, erosion rates should be similar to preconstruction conditions.

Local groundwater may be contaminated if leaks or spills associated with construction operations are allowed to infiltrate soils. Contaminants impacting local groundwater could also adversely impact surface waters as contaminated local groundwater recharges nearby segments. Adverse impacts on deeper groundwater are not anticipated.

Environmental Consequences of the No Action Alternative: None.

Mitigation: See *Vegetation* section.

Finding on the Public Land Health Standard for water quality: It is unlikely that construction of this project would result in an exceedence of state water quality standards. The proposed project is unlikely to result in a change in water quality in Yellow and Piceance Creeks that would cause downstream areas to fail to meet Land Health Standard 5.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The proposed pipeline alignment would be located on a broad ridge top above Ryan Gulch. There are no wetlands and/or riparian areas along the proposed pipeline alignment. The nearest channels that support riparian vegetation are privately-owned reaches of Stake Springs Draw, which are separated from the project area by a minimum 1.4 miles of ephemeral channel.

Environmental Consequences of the Proposed Action: The Proposed Action would not directly involve any wetlands or riparian zones. The likelihood of project-generated sediments reaching downstream riparian-bearing systems in measurable quantities is remote given implementation of BMPs established in the Ryan Ridge SWMP.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Indirect impacts would be avoided or minimized through implementation of BMPs as presented in the Ryan Ridge SWMP. For additional mitigation that would benefit downstream riparian and wetland areas, see the *Vegetation* and *Soils* sections.

Finding on the Public Land Health Standard for riparian systems: The project would not directly impact riparian areas and wetlands. With the implementation of BMPs and a storm-water management plan, the project would not contribute measurable amounts of sediment to riparian and wetland areas downstream of the project. Therefore, the Proposed Action would not result in a failure to meet land health standards downstream of the project area.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The Ryan Ridge project area would be located in vegetation communities predominately composed of sagebrush shrublands and mixed age class of pinyon/juniper woodlands. The majority of the proposed pipeline alignment would parallel an existing pipeline ROW and CR 68. Communities composed of mixed grass/forb dominate previously disturbed pipeline ROWs.

Environmental Consequences of the Proposed Action: Corridors 6 and 7 for nearly the entire length would parallel CR 68 and an existing pipeline ROW. Approximately 22.5 acres of pinyon/juniper woodlands and 16.1 acres of sagebrush shrublands would be removed as a result of this project. The pipeline alignment would re-disturb approximately 23.5 acres of previous disturbance that has been reclaimed.

Direct impacts of vegetation removal include short-term loss of vegetation and the modification of vegetation structure, plant species composition, and temporary reduction of basal and aerial vegetative cover. Removal of vegetation also results in increased soil exposure, short-term loss of wildlife habitat, reduced plant diversity, and loss of livestock forage. Indirect impacts include the increased potential for non-native/noxious plant establishment and introduction, accelerated wind and water erosion, changes in water runoff due to road/facility construction, soil impacts that affect plant growth (soil erosion or siltation), shifts in species composition and/or changes in vegetative density away from desirable conditions, and changes in visual aesthetics.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Bargath will promptly revegetate all areas of earthen disturbance not necessary for production, with the following seed mix (BLM 1997):

White River Field Office Native Seed Mix #3

Species	Seeding Rate Pure Live Seed (PLS)*
Western Wheatgrass (Rosanna)	2 lb/ac. PLS
Indian ricegrass (Nezpar)	1 lb/ac. PLS
Bluebunch wheatgrass (Secar)	2 lb/ac. PLS
Thickspike wheatgrass (Critana)	2 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Utah Sweetvetch	1lb/ac. PLS
Alternates: Needle and Thread Grass and Globemallow	

* Seeding rate is for drilled seed; for broadcast seeding the rate will be doubled.

Stockpiled topsoil and spoil piles will be separated and clearly labeled to prevent mixing during reclamation efforts.

Woody material will not be included within the topsoil piles, but will be piled separately in a manner that avoids windrowing and large piles of material (Michels 2009).

In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. Trees or shrubs that must be removed for construction or ROW preparation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. Trees removed during construction that are not needed for reclamation purposes shall be cut in four foot lengths (down to 4 inches diameter) and placed in manageable stacks immediately adjacent to a public road to facilitate removal for company use or removal by the public. Woody materials required for reclamation shall be stockpiled along the margins of the authorized use area separate from the topsoil piles. Once the disturbance has been recontoured and reseeded, stockpiled, unlimbed, woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20 percent ground cover. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.

Re-vegetation will commence immediately after construction, unless directed otherwise by BLM. Drill seeding is the preferred method of application.

Bargath will be responsible for achieving a reclamation success rate equal to a minimum cover and composition of 80 percent of the Desired Plant Community (as defined by the ecological site) or in relation to the seed mix applied within three growing seasons after the application of seed. This community must be capable of persisting on the site without intervention and allow for successional processes consistent with achieving the seral stage on the site prior to surface disturbance.

Additional reclamation efforts will be undertaken at Bargath's expense. Reclamation achievement will be evaluated using the Public Land Health Standards that include Indicators of

Rangeland Health. Rehabilitation efforts must be repeated if it is concluded that the success rate is below an acceptable level as determined by the BLM.

Finding on the Public Land Health Standard for Plant and Animal Communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Standard 3 states that plant and animal communities of native and desirable species should be maintained at viable population levels to sustain public land health. With implementation of mitigation measures and successful re-vegetation, the Proposed Action would have no effect on the status of Land Health Standard 3 in regards to vegetation in the project area and/or at a landscape scale.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The proposed pipeline ROW (5.24 miles) was inventoried 50 meters from the proposed centerline for the presence of any noxious or invasive weeds during May 2009 and May 2010 (WWE 2009 and WWE 2010). Colorado State Listed weeds found within the proposed project area were: cheatgrass (*Bromus tectorum*), common mullein (*Verbascum thapsus*), houndstongue (*Cynoglossum officianale*), and bull thistle (*Cirsium vulgare*). Of these state listed weeds, common mullein and houndstongue are on the Rio Blanco County weed list.

Occurrences of cheatgrass were observed on disturbed areas scattered along the length of the project. Common mullein was observed as scattered to dense infestations along the entire proposed alignment. Bull thistle and houndstongue were observed thinly scattered along the proposed pipeline alignment. Other common weeds identified along the proposed pipeline route were kochia (*Kochia scoparia*) and Russian thistle (*Salsola australis*); these species were observed thinly scattered along CR 68.

Environmental Consequences of the Proposed Action: The disturbance associated with the Proposed Action could create a noxious weed problem by importing weed seed on vehicles and equipment or by having suitable conditions present (non-vegetated disturbed areas) for introduction of noxious weeds by other vectors. Construction activities could spread these weed species to other areas of the project by carrying seed or plant parts (rhizomes) on construction equipment. Cheatgrass occurrences are scattered throughout the understory of the proposed route for most of its length. Cheatgrass invasion is very likely if the surface is not reclaimed immediately following the disturbance.

Establishment of noxious or invasive weeds would create problems through seed production in proportion to the number of plants and the duration they are reproducing. Increased seed production of noxious or invasive plants could aggressively compete with or exclude desired vegetation during reclamation. The noxious or invasive species seed production could also encourage the spread of these unwanted plants into the adjacent native plant communities.

Environmental Consequences of the No Action Alternative: Under the no action alternative, there would be no new disturbance created as a result of pipeline construction. Invasive/nonnative species would continue to exist within the project area however; opportunity would not be generated for these species to invade and possibly exclude desired vegetation

within disturbed areas associated with pipeline construction on approximately 62 acres of public land.

Mitigation: The holder should implement an integrated weed management plan according to BLM manual 9015-Integrated Weed Management (BLM 1992; available at <http://www.blm.gov/ca/st/en/prog/weeds/9015.html>). Prior to the season of construction, the applicant should submit Pesticide Use Proposals for the use of herbicides appropriate for control/eradication of the noxious weed species along the proposed pipeline ROW including: cheatgrass, houndstongue, common mullein, and bull thistle.

The holder should eliminate any noxious plants before any seed production has occurred. Application of pesticides and herbicides on public lands will conform to BLM manual 9015 and the BLM White River Resource Management Plan, Appendix B, Management of Noxious Weeds (BLM 1997). Eradication should make use of materials and methods approved in advance by the Authorized Officer (AO). The holder will clean all off-road equipment to remove seed and soil prior to commencing operations on public lands within the project area.

Long-term weed control on above grade pipeline facilities will utilize methods and materials approved by BLM as directed by the AO.

Other mitigation is included in the *Vegetation* section.

THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES (includes a finding on Standard 4)

Affected Environment: Special Status Species (SSS) of plants with the potential to occur in the BLM’s WRFO are listed below in Table 4 as, federally-listed threatened, endangered, and candidate for Federal Listing (USDI, USFWS 2008a), and BLM Sensitive Species (BLM 2009, Culver et al. 2008, BLM 1994). The State of Colorado does not maintain a list of threatened & endangered (T&E) plants.

Table 4: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Plant Species with Potential to Occur in Rio Blanco County, Colorado, and WRFO BLM Sensitive Plant Species

Species	Status ¹	Habitat Description	Potential To Occur In The Project Area
Dudley Bluffs bladderpod (<i>Physaria (Physaria) congesta</i>)	<u>T</u>	Exposures of white shale of the Thirteen Mile Tongue of the Green River Formation	No individuals found during field surveys and no suitable habitat present along proposed corridors or facility locations
Dudley Bluffs (Piceance) twinpod (<i>Physaria obcordata</i>)	<u>T</u>	Exposures of white shale of the Green River Formation	No individuals found during field surveys and no suitable habitat present along proposed corridors or facility locations
Ute Ladies’-Tresses (<i>Spiranthes diluvialis</i>)	<u>T</u>	Sub-irrigated alluvial soils, open meadows and along streams.	Not known to occur in the White River Field Office management area. Suitable habitat is not found on the proposed project disturbance area.
White River beardtongue (<i>Penstemon scariosus</i> var. <i>albifluvis</i>)	<u>C</u>	Desert shrub and pinyon/juniper communities on the Green River shales.	Individual plants and suitable habitat were not found on the proposed project disturbance area.

Table 4: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Plant Species with Potential to Occur in Rio Blanco County, Colorado, and WRFO BLM Sensitive Plant Species

Species	Status ¹	Habitat Description	Potential To Occur In The Project Area
Narrow-stem gilia (<i>Aliciella stenothyrsa</i>)	<u>BLMS</u>	Silty to gravelly loam soils derived from the Green River or Uinta Formations. Grassland, shrubland, and P/J communities. Elev. 5,000-6,000 ft. Occurs in Mesa and Rio Blanco counties.	Not known to occur in the project area, and not found during field surveys.
Debris milkvetch (<i>Astragalus detritalis</i>)	<u>BLMS</u>	Pinyon/juniper and desert shrub communities with rocky soils.	Not known to occur in the project area, and not found during field surveys.
Duchesne milkvetch (<i>Astragalus duchesnensis</i>)	<u>BLMS</u>	Pinyon/juniper and desert shrub communities; around sandstone or shale outcrops.	Not known to occur in the project area, and not found during field surveys.
Park rockcress (<i>Arabis fernaldiana</i> var. <i>feraldiana</i>)	<u>BLMS</u>	Desert shrub and pinyon/juniper on sandstone and limestone outcrops.	Not known to occur in the project area, and not found during field surveys.
Ephedra buckwheat (<i>Eriogonum ephedroides</i>)	<u>BLMS</u>	Juniper and sagebrush-grass communities on white shale of the Green River Shale Formation.	Not known to occur in the project area, and not found during field surveys.
Cathedral Bluff dwarf gentian (<i>Gentianella tortuosa</i>)	<u>BLMS</u>	Sagebrush up to spruce-fir forests (8,500 to 10,800 ft) on shale outcrops of the Green River Formation.	Not known to occur in the project area, and not found during field surveys.
Narrow-stem gilia (<i>Gilia stenothyrsa</i>)	<u>BLMS</u>	Pinyon/juniper, sagebrush, mountain shrub, on Green River and Uinta Formation soils.	Not known to occur in the project area, and not found during field surveys.
Piceance bladderpod (<i>Lesquerella parviflora</i>)	<u>BLMS</u>	Green River Shale outcrops on ledges and slopes.	Species and suitable habitat not found within project area.
Flaming Gorge evening primrose (<i>Oenothera acutissima</i>)	<u>BLMS</u>	Sandy, gravelly or rocky soil in seasonally wet areas, mixed conifer and sagebrush.	Species and suitable habitat not found within project area.
Rollins cryptanth (<i>Oreocarya</i> [<i>Cryptantha</i>] <i>rollinsii</i>)	<u>BLMS</u>	Pinyon/juniper and cold desert shrub habitats on Green River shales.	Species and suitable habitat not found within project area.
Colorado feverfew (<i>Parthenium ligulatum</i>)	<u>BLMS</u>	Barren shale knolls.	Not known to occur in the project area, and not found during field surveys.
Graham's beardtongue (<i>Penstemon grahamii</i>)	<u>BLMS</u>	Decomposed oil shale and talus on the Green River Formation, Evacuation Creek and Parachute Creek Members.	Species and suitable habitat not found within project area.
Cathedral Bluff meadow-rue (<i>Thalictrum heliophilum</i>)	<u>BLMS</u>	Sparsely vegetated, steep shale talus slopes of the Green River Formation. Elev. 6300-8800ft. Occurs in Garfield, Mesa and Rio Blanco counties.	Not known to occur in the project area, and not found during field surveys.

¹ E = Federally Endangered, T = Federally Threatened, C = Federal Candidate species, BLMS = BLM Sensitive species

A survey of SSS plant species was conducted on the proposed pipeline route, the proposed above-grade pipeline facilities, and temporary work areas by SWCA on July 28, 2008 (SWCA 2008a). In compliance with the recent WRFO survey protocol for SSS of plants and noxious

weeds, WestWater Engineering (WWE) conducted additional surveys during May 2009 and May 2010 (WWE 2009 and WWE 2010).

Two federally-threatened species are known to occur near the project area, Dudley Bluffs bladderpod and Dudley Bluffs twinpod. These species are found on exposures of white shale of the Green River Formation. The nearest known population of both species occurs in the Ryan Gulch Area of Critical Environmental Concern (ACEC), which is located approximately 5.7 miles east of the project area. Suitable habitat for the Dudley Bluffs bladderpod and the Dudley Bluffs twinpod was not observed along the proposed pipeline alignment and above grade facilities. However, several white shale outcrops of the Black Sulphur Tongue occur on the slopes of Ryan Gulch within 600 meters of the proposed project. The Black Sulphur Tongue is considered potential habitat for the two species, but neither species has been found on outcrops of the Black Sulphur Tongue (Roberts 2009).

Ute Ladies'-Tresses are not known to occur in the WRFO, but potential habitat may exist along the White River and perhaps in smaller drainages. The candidate White River beardtongue and suitable habitat for the species were not found in the survey area. No BLM sensitive plants and/or suitable habitat were observed during the SSS plant surveys within 100 meters of the project area (SWCA 2008a, WWE 2009 and 2010).

Environmental Consequences of the Proposed Action: The disturbances that would occur from the Proposed Action are not located within or near suitable habitat for any SSS plants; therefore, there would be no direct effects on SSS plants. Due to the distance from the proposed pipelines to the nearest known populations, the short term increase in fugitive dust generated by vehicle traffic, construction equipment, and blasting is unlikely to have any detectable effect on any SSS plants (see also Air Quality). Operation of above-grade pipeline facilities for the long term should not result in dust levels that would be above ambient levels associated with vehicle traffic on county, BLM, and private roads.

Endangered Species Effect Finding: Subsequent to the SSS plant survey findings there would be “no affect” on the Dudley Bluffs bladderpod, the Dudley Bluffs twinpod, or the candidate White River beardtongue.

Environmental Consequences of the No Action Alternative: None.

Mitigation: In the future, if new information reveals project-related impacts to any plant species listed as endangered or threatened which exceed the impacts described in this document, Section 7 Consultation with U.S. Fish and Wildlife Service (FWS) must be initiated.

Finding on the Public Land Health Standard for Threatened & Endangered species: Field surveys of areas proposed for disturbance by the project did not locate any occurrences of threatened, endangered, or BLM sensitive plant species. Therefore, the proposed project would not change the current land health conditions for Standard 4.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: Table 5 lists the FWS threatened, endangered, and candidate fauna species with potential to occur in Rio Blanco County, Colorado (USDI, USFWS 2008a), and Colorado State endangered and threatened species likely to occur in the project area (CDOW 2009). Pertinent BLM Sensitive Species (BLM 2009) are also listed in Table 5.

Table 5: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Fauna Species with Potential to Occur in Rio Blanco County, Colorado; Colorado State Endangered and Threatened Species and BLM Sensitive Species Likely to Occur in the Project Area

Species	Status ¹	Habitat Description	Potential To Occur in the Project Area
MAMMALS			
Black-footed ferret (<i>Mustela nigripes</i>)	E, SE	Open grasslands with prairie dog colonies.	No grassland habitats or prairie dog colonies occur in the project area or vicinity.
Canada lynx (<i>Lynx canadensis</i>)	T, SE	Mixed conifer forest, generally above 8,000 feet.	No mixed conifer forest occurs in the project area or vicinity.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	BLMS	Mines, caves, and structures in woodlands	May occur in the project area.
White-tailed prairie dog (<i>Cynomys leucurus</i>)	BLMS	Open shrublands, semi-desert grasslands, and mountain valleys.	Does not occur in the project area.
Spotted bat (<i>Euderma maculatum</i>)	BLMS	Rocky cliffs, caves, crevices, or mines near coniferous woodlands or open semi-desert shrublands accessible to water.	No cliffs, caves, mines, and coniferous woodlands occur within the project area.
Fringed myotis (<i>Myotis thysanodes</i>)	BLMS	Pinyon/juniper, greasewood, saltbrush and oakbrush	May occur in the project area.
BIRDS			
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	ST, BLMS	Winters in river bottom areas, especially within big game winter concentration areas.	Not currently mapped as bald eagle winter range by CDOW (CDOW 2009). However, bald eagles have been observed nesting and hunting along Piceance Creek.
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	C	Breeds in riparian gallery forests with dense, understory vegetation.	No riparian gallery forests occur in the project area or vicinity.
Northern Goshawk (<i>Accipiter gentilis</i>)	BLMS	Primarily in conifer forests; known to utilize large trees in pinyon/juniper woodlands in NW Colorado	Known to occur in the project area.
Burrowing Owl (<i>Athene cucularia</i>)	ST, BLMS	Breeding habitat is associated with colonies of prairie dogs or other burrowing rodents.	There is no known suitable breeding habitat near the project location.
Ferruginous Hawk (<i>Buteo regalis</i>)	BLMS	Large grassland/shrublands with good numbers of rodents and lagomorphs in low to mid elevations.	Not known to occur within the project area, no nests were observed during surveys.

Table 5: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Fauna Species with Potential to Occur in Rio Blanco County, Colorado; Colorado State Endangered and Threatened Species and BLM Sensitive Species Likely to Occur in the Project Area

Species	Status ¹	Habitat Description	Potential To Occur in the Project Area
Greater Sage-grouse (<i>Centrocercus urophasianus</i>)	C	Continuous big sagebrush habitat on flat or gently rolling terrain.	May occur in the project area.
Mountain Plover (<i>Charadrius montanus</i>)	BLMS	Shortgrass prairies and mountain parks with similar vegetation structure.	Suitable nesting and breeding habitat is not present at or in the vicinity of the project area.
American Peregrine Falcon (<i>Falco peregrinus anatum</i>)	BLMS	High cliffs near pinyon-juniper, ponderosa, or spruce-fir forests. Elevations from 4,500 to over 9,000 ft.	Suitable nesting and breeding habitat is not present at or in the vicinity of the project area. However, species may forage in the project area.
Long-billed Curlew (<i>Numenius americanus</i>)	BLMS	Grasslands and Shortgrass prairies near ponds and lakes. Generally found at lower elevations.	Suitable nesting and breeding habitat is not present at or in the vicinity of the project area.
White-faced Ibis (<i>Plegadis chihi</i>)	BLMS	Marshes and shallow water habitats including lake edges and flooded agriculture. Nesting birds prefer tall emergent wetland plant species.	Suitable nesting and breeding habitat is not present at or in the vicinity of the project area.
American White Pelican (<i>Pelecanus erythrorhynchos</i>)	BLMS	Occur on or near large bodies of water, nesting on islands.	Suitable nesting and breeding habitat is not present at or in the vicinity of the project area.
Brewer's Sparrow (<i>Spizella berweri</i>)	BLMS	Sagebrush shrublands	Observed throughout the sagebrush shrublands of the project area.
Columbian Sharp-tailed Grouse (<i>Tympanuchus phasianellus columbian</i>)	BLMS	Sagebrush and mountain shrublands at mid elevation.	No past history of occurrence in the project area, and the habitat is not appropriate for sustained occupation. It is unlikely that this species would be present.
FISH			
Bonytail (<i>Gila elegans</i>)	E, SE	Large rivers with fast, flowing waters.	No perennial water sources exist within the project area or vicinity, and the species is not known to occur in the White River basin. ²
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	E, ST	Large rivers strong currents and deep pools.	No perennial water sources exist within the project area or vicinity and the species is not known to occur above Taylor Draw Dam, located 23 tributary miles and 21 river miles downstream of the nearest project point. ²
Humpback chub (<i>Gila cypha</i>)	E, ST	Rivers with sand, gravel or boulder bedrock stream beds; prefers deep eddies and pools.	No perennial water sources exist within the project area or vicinity and the species is not known to occur in the White River basin. ²

Table 5: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Fauna Species with Potential to Occur in Rio Blanco County, Colorado; Colorado State Endangered and Threatened Species and BLM Sensitive Species Likely to Occur in the Project Area

Species	Status ¹	Habitat Description	Potential To Occur in the Project Area
Razorback sucker (<i>Xyrauchen texanus</i>)	E, SE	Rivers with strong currents and deep pools with sandy or rocky bottoms.	No perennial water sources exist within the project area or vicinity, and the species is not known to occur in the White River basin. ²
Bluehead sucker (<i>Catostomus discobolus</i>)	BLMS	Small to mid-size tributaries in the Upper Colorado River Basin with rocky or gravelly substrate and suitable habitat in larger main-stem streams. tributaries in CO.	No perennial water sources exist within the project area or vicinity. Downstream water sources may be impacted by sediment runoff from the project where the species may occur.
Flannelmouth Sucker (<i>Catostomas latipinnis</i>)	BLMS	Medium to large streams occur in the White River Basin.	No perennial water sources exist within the project area or vicinity. Downstream water sources may be impacted by sediment runoff from the project where the species may occur.
Mountain Sucker (<i>Catostomas platyrhynchus</i>)	BLMS	Small rivers and streams, occurs in the White River Basin.	No perennial water sources exist within the project area or vicinity. Downstream water sources may be impacted by sediment runoff from the project where the species may occur.
Roundtail chub (<i>Gila robusta</i>)	BLMS	Medium and large streams with pool and riffle habitats, often occupying deep, slow areas with debris and cover on a rocky, gravel, silt, or sandy substrate.	No perennial water sources exist within the project area or vicinity. Downstream water sources may be impacted by sediment runoff from the project where the species may occur.
Colorado River cutthroat trout (<i>Oncorhynchus clarki pleuriticus</i>)	BLMS	Cold to Cool water portions of the Upper Colorado River system, including the smallest tributaries. Complex streams with sinuosity and a variety of substrates provide the best habitat.	No perennial water sources exist within the project area or vicinity. Suitable habitat for this species does not occur near the project area.
Reptiles/Amphibians			
Boreal toad (<i>Anaxyrus boreas boreas</i>)	BLMS	Lakes, ponds, wet meadows, and wetlands in subalpine forests. Adults may venture into drier forest habitats outside of mating seasons.	Suitable habitat for this species is not present in the project or within the vicinity of the project.

Table 5: U.S. Fish and Wildlife Service Threatened, Endangered, and Candidate Fauna Species with Potential to Occur in Rio Blanco County, Colorado; Colorado State Endangered and Threatened Species and BLM Sensitive Species Likely to Occur in the Project Area

Species	Status ¹	Habitat Description	Potential To Occur in the Project Area
Northern leopard frogs (<i>Rana pipiens</i>)	BLMS	Wet meadows, ponds, streams, irrigation canals. Known to occur in Rio Blanco County.	No suitable habitat on BLM land in the project area.
Great Basin spadefoot toad (<i>Spea intermontana</i>)	BLMS	Pinyon/juniper woodlands, sagebrush, semi-desert shrub, canyon bottoms, and floodplains.	No suitable habitat in the project area, known to occur in Rio Blanco County.

¹ E = Federally Endangered, T = Federally Threatened, C = federal candidate species; SE = Colorado State Endangered, ST = Colorado State Threatened; BLMS= BLM Sensitive Species

² Water depletions in the Upper Colorado River system adversely affects these species and their designated critical habitat located downstream in the Green and Colorado Rivers.

Due to the lack of suitable habitat, none of the above federally or State-listed animal species are known to breed in the project area or utilize the area for other crucial life functions. However, the Colorado pikeminnow, razorback sucker, bonytail, and humpback chub, and their designated critical habitats (USDI, USFWS 1994, USDI, USFWS 2009, BLM 2008) located downstream on the White, Green and Colorado Rivers could be impacted by offsite effects resulting from project related water use (BLM 2008).

Townsend’s big-eared bats (*Corynorhinus townsendii*) and fringed myotis (*Myotis thysanodes*), may use mature pinyon/juniper as roosting habitat within the project area. No bats were observed during field surveys for this project.

There is no nesting habitat for bald eagles in the project area and no wintering habitat (CDOW 2009). However, bald eagles were observed nesting during the 2010 nesting season along Piceance Creek, near Stewart and Jessup Gulches which are approximately 13 miles upstream of the project area. The eagles were observed foraging and hunting in the Piceance Creek area during the spring of 2010 (Gray 2010).

Previous survey work in the area has not identified burrowing owls as being present (SWCA 2008b, Kingery 1998). In western Colorado burrowing owls nest in burrows made by prairie dogs, Wyoming ground squirrels, rock squirrels, and other ground squirrels (Kingery 1998). There are no concentrations of rodent burrows present near the project area.

Northern goshawks (*Accipiter gentilis*) are present in low densities throughout the Piceance Basin. Northwest of the project area, several active goshawk nests are known to occur in the vicinity of Ryan Gulch. These nests are located in pinyon pines at elevations around 7,000 ft. A survey was conducted of the project area during the spring of 2008, 2009, and 2010, with no active goshawk nests found in the proposed Ryan Ridge project area (SWCA 2008b, WWE 2009, and 2010).

Brewer's sparrows were observed in the sagebrush shrublands throughout the project area (WWE 2009 and 2010). Several nests have been observed in the surrounding area and it is likely that they nest and forage within the project boundaries.

The southwest portion of the project area is located within overall greater sage-grouse (*Centrocercus urophasianus*) range in Sections 23, 24, 26, and 27, T2S, R99W; and within the four mile lek buffer for the Bar D #2 historic lek site, in Section 18, T2S, R98W and Sections 13, 23, 24, 26, and 27 T2S, R99W (CDOW 2009). Approximately 2.9 miles of the proposed pipeline alignment would be located within this historic four mile lek buffer. Mature pinyon/juniper woodlands with scattered pockets of sagebrush shrublands dominate the vegetation along this segment of the pipeline alignment. Approximately 0.5 miles of the proposed pipeline alignment, would be located in Sections 23, 26, and 27, Township 2 South, Range 99 West, which falls within the four mile buffer for the active Bar D lek site (CDOW 2009). The southern-most two miles of the pipeline corridor lie on the distal and lower elevation margin of occupied habitat. Under current conditions, the corridor would involve virtually no sagebrush habitat suitable for sage-grouse occupation. Corridor 7-2 (about 0.3 mile) lies on the edge of a large sagebrush park that burned in the mid-1980's and is in the early stages of reestablishing a shrub component. This corridor segment is separated from the nearest suitable sagebrush cover by about 1.5 miles of burn and lies among considerable pinyon-juniper encroachment. The remaining portion of the corridor in overall range is situated in a lower elevation (7000-7100 feet) sagebrush park that is heavily encroached by older conifer regeneration. This park is composed of sagebrush that generally exceeds the height tolerated by sage-grouse and possesses poorly developed herbaceous understories. No sage-grouse and/or sage-grouse sign (i.e., fecal pellets, cecal cast, or feathers) were observed during field surveys for this project (WWE 2009 and 2010).

Piceance Creek is located approximately 6.1 miles downstream of the project area and provides habitat for bluehead suckers (*Catostomus discobolus*), flannelmouth suckers (*Catostomus latipinnis*), and mountain suckers (*Catostomas platyrhynchus*). Also refer to the *Aquatic Wildlife* section of this document.

Intermittent and perennial streams may provide suitable habitat for northern leopard frogs (*Rana pipiens*), however, there is no suitable habitat for leopard frogs within the project area.

Great Basin spadefoot toads (*Spea intermontana*) are known to occur in northwestern Colorado in pinyon/juniper, sagebrush, rocky canyons, broad dry basins, and floodplains (Hammerson 1999). There are no known documented occurrences of this species in the project area and there are no temporary or permanent water sources within the proposed project area.

Environmental Consequences of the Proposed Action: In May 2008, BLM prepared a Programmatic Biological Assessment (PBA) that addresses water depleting activities associated with BLM's fluid minerals program in the Colorado River Basin within Colorado. On December 19, 2008, in response to BLM's PBA, the FWS issued a Programmatic Biological Opinion (PBO) (ES/GJ-6-CO-08-F-0006) (USDI, FWS 2008b), which determined that BLM water depletions from the Colorado River Basin are not likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, or razorback sucker, and that BLM water depletions are not likely to destroy or adversely modify designated critical habitat.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) was initiated in January 1988. The Recovery Program serves as the reasonable and prudent alternative to avoid jeopardy and provide recovery to the endangered fishes by depletions from the Colorado River Basin. The PBO addresses water depletions associated with fluid minerals development on BLM lands, including water used for well drilling, hydrostatic testing of pipelines, and dust abatement on roads. The PBO includes reasonable and prudent alternatives developed by the FWS which allow BLM to authorize oil and gas wells that result in water depletion while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. As a reasonable and prudent alternative in the PBO, FWS authorized BLM to solicit a one-time contribution to the Recovery Program in the amount equal to the average annual acre-feet depleted by fluid minerals activities on BLM lands.

This project has been entered into the WRFO fluid minerals water depletion log, which will be submitted to the Colorado State Office (COSO) at the end of the fiscal year. Water consumption associated with the installation of gas field gathering systems (i.e., pressure testing and dust abatement) was analyzed as an integral component of natural gas development in BLM's PBA and, as such, the 2.32 acre-feet of depletions attributable to the Proposed Action are covered by FWS's PBO and BLM's Recovery Program contribution.

Approximately 22.5 acres of pinyon/juniper woodlands would be removed as a result of this project, and of that disturbance approximately 19.3 acres or 85 percent of trees removed would be adjacent to CR 68. Approximately 3.2 acres of pinyon/juniper trees removed for this project would be located more than 328 feet from the county road. Woodlands adjacent to existing roads or other regular disturbance would be less important to nesting of goshawks which tend to nest in stand interiors and avoid human activity. Development and construction of the project is not expected to result in any detectable impact to northern goshawk populations in the project area. If construction were to begin during the spring/summer of 2011 or a later year, combining a survey for northern goshawks with surveys recommended for other raptor species would provide an added level of certainty that no direct impacts would occur as a result of disturbance during the nesting season.

The project is located within the four-mile buffer of one historic lek and one active lek as mapped by the CDOW (CDOW 2009). Data shows that 85 percent of sage-grouse nests occur within four miles of active lek sites (Colorado Greater Sage-grouse Steering Committee 2008). There is an expected loss of 16.1 acres of sagebrush shrublands as a result of this project and of that disturbance approximately 14.9 acres removed would be within 100 meters of CR 68. It is unlikely that the sage-grouse would nest and/or occupy the sagebrush shrublands of the project area due to lack of suitable habitat. The project area is located in an area of mixed mature pinyon/juniper woodlands with pockets of sagebrush shrublands. Sage-grouse prefer continuous ridge tops with dense sagebrush shrublands. Because the pipelines would parallel an existing county road for almost its entire length, it is unlikely that the project would compromise the long-term character of the habitat for future use.

Until functional sagebrush canopies reestablish along the pipeline corridors, the removal of approximately 16.1 acres of sagebrush shrublands would result in a long-term loss of nesting

habitat for Brewer's sparrows. Approximately 14.9 acres or 92 percent of the sagebrush shrublands that would be removed as a result of this project would broaden corridors along existing roads that tend to be avoided as nest sites. Along rural dirt roads densities of Brewer's sparrows are reduced by 39 percent to 60 percent (Ingelfinger and Anderson 2004). In the context of habitat available in the project locale and Piceance Basin, development and construction of the project is not expected to result in any detectable impact to Brewer's sparrow populations at local or regional scales.

Endangered Species Effect Finding: BLM's programmatic biological assessment for water depletions associated with fluid mineral development in the upper Colorado River Basin of Colorado established a "may affect, likely to adversely affect" for the endangered Colorado River fish. The FWS's analysis and subsequent biological opinion determined that, with the application of reasonable and prudent alternatives, BLM water depletions from the Colorado River Basin are not likely to jeopardize the continued existence of these fish and that BLM water depletions are not likely to destroy or adversely modify designated critical habitat. Because the Proposed Action is consistent with the programmatic consultation's assumptions and analyses, no further consultation is necessary.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Goshawks would be included in the raptor nest surveys identified in the *Migratory Bird* section. In subsequent years, raptor nest surveys are to be completed prior to any development activity during the raptor nesting season (April 1 to August 15).

Nests found during these surveys would be subject to Conditions of Approval as stipulated in the White River Resource Management Plan (BLM 1997) (see the *Migratory Bird* section for specific raptor mitigation.)

In the future, if new information reveals impacts to any animal species listed as federally endangered or threatened, which exceed the impacts described in this document, Section 7 consultation with FWS must be initiated.

Finding on Public Land Health Standard for Threatened and Endangered Species (Standard 4): Due to the fact that there are no occupied habitats for threatened and endangered species and limited potential for BLM Sensitive Species or their habitat to be impacted in a long term way, the proposed project is not likely to result in any detectable change in the current land health conditions for Standard 4.

MIGRATORY BIRDS

Affected Environment: The pipeline corridors traverse through vegetation communities composed of pinyon/juniper woodlands, Wyoming sagebrush uplands, and sagebrush bottomlands. There are a number of migratory and non-migratory bird species that nest in the pinyon/juniper and sagebrush/mixed shrub communities from April through July.

The FWS (USDI, FWS 2008c) has compiled a list of Birds of Conservation Concern (BCC). The 1973 Endangered Species Act (ESA) charged FWS to "identify species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are

likely to become candidates for listing under ESA.” Table 6 includes species for Bird Conservation Region (BCR) 16, which includes western Colorado.

Table 6: Birds of Conservation Concern (BCC) Southern Rockies/Colorado Plateau

Migratory Bird Species	*Habitat Type	*Occurrence within Ryan Ridge Project Area
Ferruginous Hawk	Grassland/Shrublands with rolling hills and ridges	Not likely to occur
Bald Eagle	Large cottonwood stands near rivers and lakes.	Not likely to occur
Golden Eagle	Grasslands and sagebrush with nearby cliffs for nesting	Potential to occur
Peregrine Falcon	Areas with high cliff ledges, from elevations 4,500 to 9,000 ft	Potential to occur
Prairie Falcon	Areas with high cliff ledges	Potential to occur
Gunnison Sage-Grouse	Rolling sagebrush hills with nearly flat tops	Outside known range
American Bittern	Marshes, swamps, bogs, riparian areas	No habitat
Snowy Plover	Sandy beaches along rivers, lakes and oceans	No habitat
Mountain Plover	Grasslands and plowed fields	Outside known range
Long-billed Curlew	Grasslands with nearby bodies of water	No habitat.
Yellow-billed Cuckoo	In dense riparian woodlands and open woodlands with thick undergrowth	No habitat
Flammulated Owl	Old growth conifer and aspen woodlands with dense understory	No habitat
Burrowing Owl	Grasslands and shrublands with high densities of rodent burrows	Not likely to occur
Lewis’s Woodpecker	Pinyon/Juniper woodlands, riparian areas, open pine forests and cottonwoods	Not likely to occur
Willow Flycatcher	Riparian areas dominated by thick willow stands	No habitat
Gray Vireo	Utah juniper-dominated stands at less than 6,100 ft in western Rio Blanco County (west of Piceance Basin).	Not likely to occur
Pinyon Jay	Pinyon/Juniper woodlands	Observed throughout project area
Juniper Titmouse	Pinyon/Juniper woodlands	Observed throughout project area
Veery	Dense riparian woodlands	No habitat
Bendire’s Thrasher	Dry grasslands	Not likely to occur
Grace’s Warbler	Ponderosa pine forests with scrub oak understory	No habitat
Brewer’s Sparrow	Sagebrush shrublands	Observed throughout project area
Grasshopper Sparrow	Grasslands	Not likely to occur
Chestnut-collared longspur	Open grasslands	No habitat
Black Rosy-Finch	High elevation woodlands and shrublands	No habitat
Brown-capped Rosy-Finch	High elevation woodlands and shrublands	No habitat
Cassin’s Finch	Maintains low-density presence in pinyon/juniper woodlands throughout WRFO.	Likely to occur

*SWCA 2008b, and Kingery 1998, WWE 2009, and WWE 2010

The Ryan Ridge project area has had ongoing raptor inventories conducted during the past three nesting seasons, 2008, 2009, and 2010 (SWCA 2008b, WWE 2009 and 2010). Various raptor species have been observed occupying the pinyon/juniper woodlands within 0.25 miles of the

project area during the past nesting seasons including: long-eared owl, red-tailed hawk, and Cooper's hawk. During the 2010 nesting season, three active long-eared owl nests, three active Cooper's hawk nests, and one unoccupied stick nest were observed (Table 7) (WWE 2010).

Table 7. Raptor Nests Observed within 0.25 Miles of Proposed Project Area

Species	Legal Description of Nest Location	Description of nest	Distance from Pipeline Centerline (feet)
Unknown	SENW Section 18, T2S, R98W	Unoccupied nest observed in pinyon tree. Nest was in stable condition.	600
Cooper's Hawk	SESW Section 7, T2S, R98W	Occupied nest observed in pinyon tree. Adults were aggressive and making alarm calls.	1,090
Cooper's Hawk	NENE Section 24, T2S, R99W	Occupied nest observed in pinyon tree. Adults were aggressive and making alarm calls.	440
Long-eared Owl	NESW Section 23, T2S, R99W	Nest was observed in a juniper tree. Two chicks were present on the nest.	1,191
Long-eared Owl	SENW Section 18, T2S, R98W	5 nestlings observed in nest during 2010.	450
Long-eared Owl	SENW Section 18, T2S, R98W	3 nestlings observed in nest during 2010.	510
Unknown	SENW Section 18 T2S, R98W	Inactive nest observed during 2009.	600
Cooper's Hawk	SENW Section 18, T2S, R98W	5 nestlings observed during 2010.	750
Long-eared Owl	NWSW Section 18, T2S, R98W	Nest was active in 2006, no further information is available.	360

Brewer's sparrows occur throughout the project area in the sagebrush shrublands. It is likely that they nest within the project area. Pinyon jays and juniper titmouse are present in the pinyon/juniper woodlands located near the proposed pipeline corridors (WWE 2010).

Migratory birds that are also BLM Sensitive species are discussed in the *Threatened, Endangered and Sensitive Animal Species* section of this Environmental Assessment (EA).

Environmental Consequences of the Proposed Action: Pipeline installation is scheduled to take place immediately upon grant of ROW (summer of 2011) and should be completed within approximately 30 to 45 days (weather dependant). Construction would not occur prior to July 1st for this project in order to minimize impacts to nesting migratory birds. The nesting season in the Piceance Basin is generally considered from April 1 to July 30. May 1 to July 15 is the peak period when most incubation and brood rearing takes place. Project construction would occur after many nest attempts have been finalized and brush clearing impacts would be reduced. Under this timeframe, the Proposed Action would have little influence on local migratory bird nesting activities throughout the nesting/brood rearing season. Construction activities may directly impact nests and young birds due to loss of nest tree or substrate caused by clearing of vegetation, or abandonment by adult birds as a consequence of increased human activity.

Approximately 22.5 acres of pinyon/juniper woodlands and 16.1 acres of sagebrush shrublands would be removed as a result of this project. However, about 90 percent of the vegetation clearing attributable to pipeline construction activities would occur parallel to and within about 300 feet of CR 68 and represents habitat that is likely compromised (i.e., reduced nest site selection) due to its proximity to this road. Nesting habitat within 100 meters (330 feet) of travelled roadways generally support about half the passerine nesting density of unaffected habitats (Ingelfinger and Anderson 2004).

Due to the amount of available habitat surrounding the project area, any unintentional take of migratory birds that may occur as a consequence of the Proposed Action would not result in a measurable effect on local migratory bird populations. The requirements of Executive Order 13186 would be met (Code of Federal Regulations 2001).

Environmental Consequences of the No Action Alternative: None.

Mitigation: Where raptor nests are located within the buffer zones shown above in Table 7, the timing limitations shown in Table 8 would apply to project related construction activities.

Table 8: Timing Limitations and Recommended Buffers

Species	Buffer Zone (miles)	Seasonal Restriction
Candidate, Threatened and endangered species, and BLM sensitive species	0.5	Feb. 1 st to Aug. 15 th
Other Raptors	0.25	Feb. 1 st to Aug. 15 th

No Surface Occupancy (NSO) stipulations of 0.25 mile radius would be applied to any endangered, threatened, candidate, or BLM sensitive raptor nests found during field surveys and 0.125 mile for other raptor species (BLM 1997).

Based on current survey results, the following lands would be subject to raptor nest seasonal restrictions from 1 April through 15 August (pending exceptions or modification based on subsequent nest survey and monitoring results):

T2S, R98W, Section 18: SENW
T2S, R99W, Section 24: NENE, NWNE.

Based on lateral separation and the attenuating properties of intervening vegetation and terrain between project work and nest sites, timing limitations would not be imposed for nest sites located in Sections 7 and 23.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The project area traverses a ridge top also known as Ryan Ridge, located above Ryan Gulch, at an elevation range from approximately 6,700 to 7,100 feet. The dominant vegetation types within the project area are pinyon/juniper woodlands and Wyoming sagebrush shrublands. Previously disturbed areas are primarily grass/forb communities. The entire project area is located within an American elk (*Cervus canadensis*) overall range, production area, summer range, and winter range as mapped by the Colorado Division of

Wildlife (CDOW 2009). It is unlikely that elk would use the project area during the calving season because of the project's proximity to county roads and well access roads. The entire project area is located within overall, summer, and winter ranges for mule deer (*Odocoileus hemionus*) (CDOW 2009).

Suitable raptor-nesting habitat is found along the route of the proposed pipelines in the pinyon/juniper woodlands. Please refer to the *Migratory Birds* section for more details on migratory raptors.

Small mammal species that are likely to occur in the project area display broad ecological tolerance and are widely distributed throughout the region. No narrowly distributed or highly specialized species or sub-specific populations are known to inhabit this area.

Environmental Consequences of the Proposed Action: Activities associated with construction and human activity associated with construction of the pipelines may cause wildlife avoidance of nearby habitat for forage and cover. The project may also directly contribute to habitat loss in the area for all wildlife species. Habitat loss along the proposed pipeline corridors is temporary until reclamation is successful. Approximately 22.5 acres of pinyon/juniper habitat and 16.1 acres of sagebrush shrublands will be removed during project development. Habitat loss at the proposed above grade pipeline facilities would result in a loss of vegetation for the life of these facilities.

Because the majority of the pipeline routes associated with this project are adjacent to existing roads, it is unlikely that this project would cause increased habitat fragmentation. At the present time, there are no indications that energy-related practices in the project area are imposing effective barriers to animal dispersal or reducing patch size sufficient to elicit adverse species-area effects in any but the most localized of instances.

Construction activity associated with the proposed pipeline alignments could impact a portion of an elk production (calving) area, and mule deer and elk winter ranges, causing added stress during a critical period of the year. As mapped by the CDOW the impacted elk production area is approximately 281,983 acres and approximately 62.1 acres or 0.02 percent of the elk production area would be disturbed by the Proposed Action. Due to the small amount of the elk calving habitat that would be disturbed it is highly unlikely that project development would impact elk during the calving season.

The proposed pipeline alignment would be following existing pipeline disturbance and CR 68 for the majority of the alignment. Approximately 86 percent of pinyon/juniper woodlands and 92 percent of sagebrush shrublands to be removed as a result of the Proposed Action would be located within about 300 feet of CR 68. Disturbance along existing roads would minimize habitat loss in the area. Restricting pipeline construction to avoid critical times of the year would minimize impacts to deer and elk, and critical nesting periods for raptor species. As a consequence of the Proposed Action, truck traffic hauling produced water to the disposal well would reduce projected truck traffic by 80 percent to 90 percent with a concurrent reduction in wildlife/vehicle collisions and resultant wildlife mortality.

Open trenches also pose a threat to wildlife. Movement along game trails is restricted when a trench intersects the trail. Wildlife may become entrapped and injured in the trench when trying to cross.

In the absence of management attention, unauthorized vehicle use along these pipeline corridors is possible, resulting in delayed, or failed, habitat restoration. Due to the project's proximity to CR 68, a detectable change to disturbance and displacement of wildlife as a consequence of human activity is unlikely.

Environmental Consequences of the No Action Alternative: As gas well development continues to expand in the Piceance Basin, wastewater production can be expected to also increase. This would result in increased truck traffic hauling produced water to the disposal well. Increased vehicle/wildlife collisions and wildlife mortality would be expected.

Mitigation: Seasonal raptor nesting restrictions and No Surface Occupancy restrictions will also be implemented when raptor nests are encountered within the recommended restriction buffer zones (BLM 1997) (see the *Migratory Bird* species section for specific timing restrictions).

The holder will place escape ramps at all livestock and wildlife trails intersected by the trench. Open trenches will be inspected regularly for injured or trapped wildlife. If injured and/or trapped animals are found in the trench, Bargath will contact the local CDOW District Wildlife Manager. Pipe placed in the trench will be capped overnight to prevent wildlife from entering the pipe and becoming trapped or injured.

In order to restrict vehicles from traveling the ROW after construction has been completed, Bargath would post signs at regular intervals and at logical places of ingress and egress to and from the ROW. The posted signs would alert the public that the ROW is under reclamation and travel upon the surface is strictly prohibited.

Placement of woody material on the ROW, as detailed in the vegetation section of this document will deter vehicular use of the ROW during reclamation and for a number of years beyond.

Beyond required maintenance, no continued vehicle access along the ROW is authorized by this ROW grant.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also *Vegetation and Wildlife, Aquatic*): The project area currently meets the public land health standards for terrestrial animals. Since the pipelines would primarily be constructed within existing corridors and habitat loss would be short term, the project is expected to continue to meet Standard 3.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: The Ryan Ridge project area would be located near dry washes that are tributaries to Ryan Gulch and Stake Springs which are intermittent streams and do not provide aquatic wildlife habitat. The project would eventually drain into Piceance Creek and Yellow Creek, tributaries to the White River. The proposed project area is located

approximately 2.8 miles south of Yellow Creek and approximately 6.1 miles west of Piceance Creek.

Environmental Consequences of the Proposed Action: Due to the distance of the proposed project from aquatic habitats and the application of various state and Federal conditions that address offsite transport of sediment, there is no expected impact from project development to Piceance Creek and Yellow Creek aquatic habitat.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also *Vegetation*): This project would not jeopardize the viability of any aquatic animal populations. It would have no detectable impact on downstream aquatic habitat conditions, or result in those areas failing to meet Land Health Standard 3.

WILD HORSES

Affected Environment: The Proposed Action is not located within a designated wild horse management area. A designated wild horse area is located approximately 1.75 miles northwest of the proposed project.

Environmental Consequences of the Proposed Action: The Proposed Action would have no impacts on the wild horse management area.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

CULTURAL RESOURCES

Affected Environment: Portions of the proposed pipeline routes have been surveyed in the past for cultural resources (SWCA 2008c). Grand River Institute (GRI) performed a record search for all the proposed corridors and above grade facilities. GRI also performed a Class III (100 percent intensive) level survey of those project areas that had not been previously inventoried for cultural resources (GRI 2009). Six sites were identified to be within 656 feet of the Ryan Ridge project area and are listed below in Table 9. One site (5RB5950) was previously designated by the State Historic Preservation Officer as *Officially Not Eligible*, but upon further site assessment the site was determined to need more data. During the site assessment by GRI, a fire-cracked rock associated with a cluster of burnt-bone was observed. Based on the fact that the thermal feature can be radiocarbon dated the site's field evaluation was changed to *Needs Data* (GRI 2010).

Table 9. Sites Found within 200 Meters of the Ryan Ridge Pipeline Centerline

Site no.	Site Type	Eligibility	Distance from Edge of Right-of-Way (ROW)
5RB28	Open camp	Officially not eligible	37 meters southeast of pipeline centerline.

Table 9. Sites Found within 200 Meters of the Ryan Ridge Pipeline Centerline

Site no.	Site Type	Eligibility	Distance from Edge of Right-of-Way (ROW)
5RB42	Open lithic	Officially not eligible	45 meters southeast of pipeline centerline.
5RB4810	Isolated find	Field not eligible	Within 200 meters of the project area and would not be impacted by the proposed project.
5RB5950	Open camp	Needs data	10 meters from edge of project disturbance.
5RB5887	Isolated find	Field not eligible	Within 200 meters of the project area and would not be impacted by the proposed project.
5RB6223	Isolated find	Field not eligible	Within 200 meters of the project area and would not be impacted by the proposed project.

(GRI 2009 and GRI 2010)

Environmental Consequences of the Proposed Action: The proposed project would be located in close proximity to one potentially eligible site, 5RB5950, which has been classified as *Needs Data*.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Bargath’s proposed edge of disturbance would avoid the 5RB5950 site by 10 meters. Fencing would be placed along the edge of their disturbance near this site to keep vehicles and personnel from accessing the site during construction. A BLM authorized monitor would be on-site during construction.

All employees of the holder and any subcontractors must be informed by the project holder before commencement of operations that any disturbance to, defacement of, or removal of archaeological, historical, or cultural material (including pot shards and arrowheads) would be treated as law enforcement issues. The project holder would be held accountable for the conduct of its employees and subcontractors in this regard.

If subsurface cultural materials are discovered during operations, all work in the vicinity of the resource would cease, and the BLM AO would be notified immediately. The holder would take any additional measures requested by the AO, including the possibility of hiring a qualified archaeologist to carry out specific instructions. Within five working days of the reported discovery, the AO would inform the holder as to:

- whether the materials appear eligible for the National Register for Historic Places (NRHP);
- the mitigation measures the holder would likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- the timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer (SHPO), that the findings of the AO are correct and that mitigation is appropriate.

If the holder wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO would assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the holder would be responsible for mitigation cost. The AO would provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the holder would then be allowed to resume construction.

Pursuant to 43 CFR 10.4(g), the holder of this authorization (i.e., the holder) must immediately notify the AO by telephone and with written confirmation upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the holder must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

A monitor would be required during operation and/or reclamation activities to ensure that the avoidance measures established for this project are followed, and no inadvertent damage occurs to cultural properties.

PALEONTOLOGY

Affected Environment: The proposed pipeline alignments are located in an area that includes the Uinta and Green River Formations and surficial deposits of Holocene alluvium (Hail and Smith 1994). Under the Potential Fossil Yield Classification (PFYC) (BLM 2007b) system, the BLM COSO has classified both the Uinta Formation and the Green River Formation as *Class 5*, with a very high probability of finding important paleontological resources. Since the pipeline runs along Ryan Ridge, it is unlikely that there would be disturbance of bedrock or alluvium due to the ridge-top location and the presence of relatively deep soils (see Soils and Geology Sections).

Environmental Consequences of the Proposed Action: The majority of the Proposed Action would occur within the Uinta Formation, and there is always potential for impacting fossil resources if it is necessary to excavate into the underlying rock formation to construct the pipelines. There is a possibility that Bargath may blast the underlying rock formation, although unlikely, along portions of the proposed pipeline route, which could potentially impact fossil resources found in the Uinta formation.

Environmental Consequences of the No Action Alternative: None.

Mitigation: A paleontological monitor would be present at any time that it becomes necessary to excavate into the underlying rock formation in order to construct the pipeline. If Bargath must blast the underlying rock formation it will be necessary for the paleontological monitor to stop work on the trench and examine the rock ejected from the trench before work can continue. After the loose rock is removed from the trench, work on trench excavation will be stopped again to allow the paleontological monitor to evaluate the material for fossil resources.

Should fossil resources be discovered at any time during construction, all construction activity in the vicinity of the discovery shall cease until the BLM and an approved paleontologist have time to evaluate the discovery and recover the remains. Work shall not resume in the area of the find without written approval of the AO. The holder is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly

disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the holder is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the holder as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the holder wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the holder will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the holder will then be allowed to resume construction.

ELEMENTS NOT PRESENT OR NOT AFFECTED:

No flood plains or prime and unique farmlands exist within the area affected by the Proposed Action. No Native American Religious Concerns are known in the area, and none have been noted by Northern Ute tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken. There are no environmental justice concerns associated with the Proposed Action.

OTHER ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Visual Resources			X
Fire Management			X
Forest Management			X
Hydrology/Water Rights			X
Rangeland Management			X
Realty Authorizations			X
Recreation			X
Access and Transportation			X
Geology and Minerals			X
Areas of Environmental Concern	X		
Wilderness	X		
Wild and Scenic Rivers	X		
Cadastral	X		
Socio-Economics			X
Law Enforcement	X		

VISUAL RESOURCES

Affected Environment: The proposed Ryan Ridge project would be located within a Visual Resource Management (VRM) class III area. The objective of this class is to allow substantial impacts and changes to occur over the long term in a very sensitive and important landscape view shed. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. Prior oil and gas activities in and around the project area have resulted in readily visible disturbances related to pipeline and above grade facilities.

Environmental Consequences of the Proposed Action: Due to prior pipeline construction in these areas and because the pipeline alignment would parallel a county road for the majority of its alignment, the proposed pipeline is unlikely to result in a substantially noticeable change in the visual character of the area. The vegetation in the area of the Proposed Action is predominantly mature pinyon/juniper and the contrast between the vegetation types may still be noteworthy a few years after reclamation. Visually the contrast will not begin to reduce until the trees begin to reestablish within the disturbed area, approximately 30-40 years post reclamation. With the application of mitigating measures, the objectives of VRM Class III would continue to be met for the project area.

Environmental Consequences of the No Action Alternative: There would be no additional impact on visual resources.

Mitigation: Remove as little vegetation as possible during construction (see also mitigation for *Vegetation, Soils, and Wildlife*).

FIRE MANAGEMENT

Affected Environment: The project occurs in fire management polygon C6-Lower Piceance Basin. This unit is dominated by pinyon/juniper and Wyoming big sagebrush. A total of 62.2 acres would be disturbed by the proposed project and approximately 22.5 acres would be pinyon/juniper woodlands. The remainder would be Wyoming big sagebrush, or herbaceous communities found on prior pipeline disturbances. General management directions from the WRFO Fire Management Plan (BLM 1999) are listed below.

C-6: Fire is desired in this unit to improve vegetation mosaic and mule deer winter range condition. Fire in this polygon will be suppressed to protect oil shale, sodium, and gas facilities. In order to protect rare plants retardant use will be limited in ACECs and mechanized equipment will be limited to existing roads or trails to prevent impacts to rare plants. There will be no mechanized fire line construction. Prescribed burns or other fire management treatments will be conducted to help manage sagebrush dominated drainages to break up the continuous fuels connecting large stands of pinyon/juniper.

Environmental Consequences of the Proposed Action: If woody debris from clearing of pinyon and juniper trees is piled or windrowed, the associated heavy fuels could result in increased fire risks.

After reclamation, the fine herbaceous fuels that would be present on the pipeline corridors could be subject to fast moving relatively cool fires, similar to the surrounding shrublands. There should be no long term increase in fire risk as a result of this proposed project.

The Proposed Action would help to at least partially meet objectives set forth in the Fire Management Plan. Archaeological surveys completed for this project improve the database for future fire management decisions. Through corridor clearing and reclamation, the project would, to a degree, break up continuous fuels and improve vegetation mosaic. Due to the linear nature of the proposed pipelines, the clearings would not mimic fire caused vegetation mosaics. The reduced occurrence of heavy fuels in management unit C-6 would improve the safety margin for gas field equipment within the project area.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Woody debris remaining from clearing of the woodland species from the corridors must be disposed of in a manner that does not result in increased wildfire risks. See the *Vegetation* section of this document for mitigation concerning management of woody debris and minimizing fire risk. General requirements include no windrowing or piling of woody debris, and removal of firewood size material from the sites.

FOREST MANAGEMENT

Affected Environment: Pinyon/juniper woodlands in the area vary from young to mature. The largest trees are located on ridge tops, with some trees up to 35 ft in height. Generally, tree size is smaller and spacing is greater on slopes. Where woodlands are mature stands of pinyon/juniper, understory vegetation density is low. The percentage of pinyon vs. juniper varies with location. Stand structure, production, and composition of the woodland community have not been determined at this time. The project lies within the Piceance Geographic Reference Area (PGRA), which has areas that are open for both commercial and non-commercial woodland harvest (BLM 1997).

Environmental Consequences of the Proposed Action: WestWater Engineering collected tree volume data along the proposed pipeline alignment, the data was submitted to WRFO, so that cords of wood that would be removed as a result of this project could be calculated. It is estimated that 350.9 cords of pinyon and juniper, suitable for use as fuel wood, would be removed as a consequence of the construction activity on 22.5 acres of pinyon/juniper woodland cover. Replacement of these woodland stands, to stand characteristics similar to the current situation could take up to 250 years. It may take up to 40 years for woodland species to begin to establish on the pipeline disturbance.

Environmental Consequences of the No Action Alternative: None.

Mitigation: Commercial and non-commercial woodlands removed as a result of development will be appraised and purchased by Bargath prior to removal. See *Vegetation* section.

HYDROLOGY AND WATER RIGHTS

Affected Environment: The Proposed Action is located in White River Basin and Piceance-Yellow Creek watersheds (HUC 14050006). The White River is a tributary to the Green River (in Utah), which is ultimately a tributary to the Colorado River. Refer to the *Water Quality* Section for details on these stream segments.

There are no perennial streams directly impacted by this project as the proposed pipeline traverses the top of the ridge between Ryan Gulch and Stake Springs Draw (Ryan Ridge). Any surface water utilized by Bargath would be obtained from private sources with the permission of the water right holder.

The Colorado Division of Water Resources Colorado Decision Support Systems database reports no water rights for the legal locations of the proposed pipeline (CDWR 2010). This is probably due to the ridge-top location of the pipeline. Only two sections in the legal location of the proposed pipeline show water well permit status and are as follows: two water well permit applications were received and denied in Section 8, T2S, R98W (American Soda) . Active monitoring wells owned by Shell are recorded in Section 4, T2S, R98W approximately 2 miles east of the proposed pipeline. Shell also has an active monitoring well in Section 10 with a total depth of 1,508 feet. This well is over 4 miles east of the proposed pipeline. Other monitoring wells exist in T2S, R98W, but are over 5 miles away.

In T2S, R99W, four permit applications were received for water wells (Section 13, Rio Blanco Oil), which are near the project area. No existing monitoring wells were noted anywhere else in T2S, R99W.

Environmental Consequences of the Proposed Action: During construction, drainage from compacted construction surfaces would reduce infiltration resulting in elevated surface runoff and sediment transport to downstream channels and streams. In the short term, the surface disturbance associated with pipeline construction could alter ground water recharge and discharge patterns. In the long term, after reclamation of the pipeline corridors, surface runoff and infiltration from the pipeline corridors should be similar to preconstruction conditions. There would be no detectible change in runoff from the existing roads in the project area.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

RANGELAND MANAGEMENT

Affected Environment: The entire project is on public land located within the Reagles grazing allotment (number 6026). The allotment in the proposed project area is used May through November, with most pastures resting every other year and some resting every third year.

The project lies within sagebrush shrublands and pinyon/juniper woodland plant communities within the grazing allotment. The total livestock carrying capacity of the Reagles allotment is

18,367 acres or 955 animal unit months (AUM) or 19.23 acres/AUM (an AUM equals the amount of forage required by one mature cow and one calf for one month) (BLM 1997). The proposed pipeline does not cross any fences or water lines used for livestock.

Environmental Consequences of the Proposed Action: Until pipeline construction disturbances are successfully reclaimed, there would be a short-term loss of approximately 3.2 AUMs (62.1 acres/19.2 acres/AUM). This short-term forage loss would occur on the Reagles grazing allotment. Long-term forage loss on 1.4 acres within the Reagles allotment would be occupied by the above grade pipeline facilities. This loss would be approximately 0.07 AUMs of the forage within the allotment. The short-term forage loss in the Reagles allotment would amount to approximately 0.33 percent. These losses, which are likely to be less than the annual fluctuation in forage production, are not expected to result in any need for changes in livestock numbers or grazing periods. Reclamation of disturbed areas would likely offset the short-term forage loss on the allotments within two to three years through increased herbaceous production above current production levels.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

RECREATION

Affected Environment: The Proposed Action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing, and off-highway vehicle use. The project area most closely resembles the Recreation Opportunity Spectrum (ROS) class of Roaded Natural (RN). RN settings are characterized by a natural environment with evidence of rural residences and agricultural land uses. Resource manipulations are noticeable and are harmonious with the natural environment, but substantial modifications may be encountered. The areas provide about equal opportunities for interaction with other visitors and to experience isolation from the sights and sounds of man.

Environmental Consequences of the Proposed Action: Recreation use in the project area is low. The upland areas within the project area have open public vehicle access via Rio Blanco County roads. Public access in some areas is limited by private lands and fluid mineral developments. What recreation activity there is occurs primarily during big game hunting season. Due to construction activities, the public would most likely not recreate in the vicinity of the pipeline route during construction.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

SOCIO-ECONOMICS

Affected Environment: The Proposed Action would be developed in Rio Blanco County but construction resources would also be drawn from Garfield County, Mesa County, and eastern Utah on a temporary basis. Rio Blanco County had a 2008 population of 6,340, which is a slight

increase in population from the 2002 population of 6,063. The major communities in the county are Meeker (2,183 population in 2008) and Rangely (2,096 population in 2008) (U.S. Census Bureau 2009). The county underwent a substantial economic and demographic growth in the late 1970s and early 1980s as major energy companies attempted to develop oil shale as a national energy fuel source. After a decline in jobs and population from the boom levels, the number of jobs and people in the county has remained static. Currently, the government sector makes up almost a third of all jobs in the county. The traditional farming and ranching sector has been supplemented in the last few years by a growing number of jobs in the oil and gas extraction industry as drilling and related processing activity has expanded. In addition to oil and gas exploration and development, the other major economic activity that occurs in the project area is livestock grazing.

Environmental Consequences of the Proposed Action: The employment required for construction of the pipelines may be as many as 65 workers, for 30 to 45 days. These employees would not represent new employment for the area but would be workers already available in the area or from nearby communities in western Colorado or eastern Utah. Motels, restaurants, grocery stores, gas stations, vehicle and equipment repair shops may all experience some additional activity. The facilities developed by the Proposed Action would expand the local property tax base. This net effect of these impacts would be considered beneficial but low.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

ACCESS AND TRANSPORTATION

Affected Environment: The primary access to the project site would be via Rio Blanco County Roads. Beginning at Colorado Highway 64, access would be south on County Road 5, and then southwest on County Road 24, to County Road 68 into the project area.

Motorized vehicle travel on public lands within the area of the Proposed Action is limited to existing roads from October 1 to April 30 each year. Cross-country motorized vehicle travel is allowed from May 1 to September 30 as long as no resource damage occurs as a result (BLM 1997).

Environmental Consequences of the Proposed Action: Construction of the proposed pipeline would contribute to traffic along the county roads for a period of 30 to 45 days. A maximum of about 65 project related vehicles can be anticipated to use the county roads. These would consist of pickup trucks, motor graders, flat bed trucks, dump trucks, welder trucks, stringing trucks, and others as outlined in the POD. Existing vehicle traffic levels are low in the area, so the short-term increase caused by this project would not result in substantial effects to local traffic patterns.

During the life of the project, traffic caused by pipeline and above grade facilities should be very low.

Environmental Consequences of the No Action Alternative: None.

Mitigation: All activities would be required to comply with applicable local, State, and Federal transportation laws, statutes, regulations, standards, and plans. Activities would strictly adhere to Gold Book fourth edition surface operating standards for oil and gas exploration and development (USDI, USDA 2007) and BLM manual section 9113 (BLM 1985).

County Road 68 will be returned to its previous condition by the applicant. All non-county roads used to access pipeline facilities would be maintained in their current condition or better.

Further mitigation of impacts to access and transportation should be achieved through management practices including:

- use of a construction yard as the primary parking for personal vehicles;
- encouragement and/or arrangement for employees and contractors to carpool to and from the site;
- requiring contractors and employees to comply with all posted speed limits;
- compliance with county and state weight restrictions and limitations;
- controlling dust along unsurfaced access roads and minimizing the tracking of mud onto paved roads; and
- post-construction restoration of unsurfaced roads to equal or better condition than existed before construction.

GEOLOGY AND MINERALS

Affected Environment: The general project area is located in the central part of the Piceance Creek Basin, on the southwestern flank of the Black Sulfur Anticline (Hail and Smith 1994). Tongues of the Tertiary Uinta and Green River Formations overlie the majority of the proposed pipeline and associated facilities. In the southwest portion of the project area, the tongues are undivided. The northeastern portion of the project area consists of the Group E tongues of the Green River and Uinta, which are interbedded, light grey silty marlstone with interbedded sandstone and siltstone, approximately 20-inches to 40-inches thick. The pipeline route intersects Holocene quaternary alluvium consisting of terrace gravels located in Section 8, T2S, R98W and Sections 18 and 24, T2S, R99W (Hail and Smith 1994).

According to the Colorado Oil and Gas Conservation Commission (COGCC 2010), there are approximately 17 oil and gas wells within a mile radius of the proposed pipeline. Most of these are producing wells that are part of Williams Ryan Gulch Unit, which fall within Williams Production Co. Oil and Gas Exploratory Units. Oil Shale Research Development and Demonstration lease COC69166 belonging to Shell Frontier is located approximately one mile north east of the project area in T2S, R98W. Federal Sodium Lease COC120057 exists in T2S, R98W (Shell Frontier).

Environmental Consequences of the Proposed Action Affected Environment: None.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

REALTY AUTHORIZATIONS

Affected Environment: The 5.24 miles of proposed pipeline would be located on federally owned lands administered by the BLM. A portion of the proposed project would share and parallel existing ROW corridors located on BLM land.

A search of the BLM LR2000 database (BLM 2000) indicates several ROWs are located within the legal sections (as based on the federal township and range system) that the Proposed Action would pass through. These ROWs are associated with other pipelines, roads, oil and gas facilities, oil shale leases, transmission lines, and TUPs.

Bargath Inc., Public Service Company of Colorado, Northwest Pipeline Corporation, and Wilgath LLC, hold ROWs in the area proposed for the water and gas pipelines. Shell Frontier Oil and Gas Inc. and Exxon Mobil Corporation both have oil shale research development and demonstration leases in the vicinity of the proposed pipeline alignment. Williams Production Company has several well access roads near the project area. The project would parallel Rio Blanco CR 68 and an existing Bargath, Inc. pipeline for almost its entire length.

Environmental Consequences of the Proposed Action: The majority of the proposed pipeline would follow an existing pipeline corridor and County Road 68. Construction activity should take place within the areas authorized in the right-of-way grant and temporary use permit. To avoid impacts to existing rights-of-way, Bargath should coordinate with existing ROW holders. To avoid impacts to county roads, any construction activity adjacent to or within Rio Blanco County road ROWs should be coordinated with Rio Blanco County Road & Bridge Department. The proposed natural gas pipeline ROW COC73932 would be 25,631 feet long with a permanent width of 50 feet, containing approximately 29.5 acres. In addition ROW COC73932 would include three 100 feet by 200 feet sites for above ground facilities along the ROW, containing approximately 1.4 acres. The water lines would be buried in the same trench as the natural gas pipelines. The water line ROW COC73933 would be a total of 27,684 feet long with a width of 50 feet for corridor 7-2 and a width of 15 feet within the associated pipeline ROW for corridors 6 and 7-1, containing approximately 11.2 acres. The temporary use permit COC73932-01 for corridors 6 and 7-1 would be 25,631 feet long with a width of 35 feet, 2,053 feet long with a width of 15 feet for corridor 7-2, and include the identified extra workspace areas, containing approximately 29.0 acres.

Environmental Consequences of the No Action Alternative: None.

Mitigation: All activities would be required to comply with all applicable local, State, and Federal laws, statutes, regulations, standards, and implementation plans. This would include acquiring all required State and Rio Blanco County permits, effectively coordinating with existing ROW holders, and implementing all applicable mitigation measures required by each permit.

Rio Blanco County Road & Bridge Department shall be contacted and any permits obtained prior to any construction activity adjacent to County Roads 68.

The applicant shall provide the BLM Authorized Officer with data in a format compatible with the WRFO's ESRI ArcGIS Geographic Information System (GIS) to accurately locate and

identify the ROW and all constructed infrastructure, (as-built maps) within 60 days of construction completion. Acceptable data formats are: (1) corrected global positioning system (GPS) files with sub-meter accuracy or better; (2) ESRI shape files or geo databases; or at last resort, (3) AutoCAD .dwg or .dxf files. Option 2 is highly preferred. In ALL cases the data must be submitted in UTM Zone 13N, NAD 83, in units of meters. Data may be submitted as: (1) an email attachment; or (2) on a standard compact disk (CD) in compressed (WinZip only) or uncompressed format. All data shall include metadata, for each submitted layer, that conforms to the Content Standards for Digital Geospatial Metadata from the Federal Geographic Data Committee standards. Questions should be directed to WRFO BLM GIS staff at (970) 878-3800.

CUMULATIVE IMPACTS SUMMARY

Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Preliminary Resource Management Plan/ Final Environmental Impact Statement (PRMP/FEIS). Current development, including the actions proposed in the Ryan Ridge project and other associated development, has not exceeded the foreseeable development analyzed in the PRMP/FEIS.

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PERSONS / AGENCIES CONSULTED: Rio Blanco County, State Historic Preservation Office

INTERDISCIPLINARY REVIEW:

Project Team

Name	Title	Area of Responsibility
BLM Oversight		
Stacey Burke	Realty Specialist	Project Lead; Realty Authorizations
Paul Daggett	Mining Engineer	Geology and Minerals
Ed Hollowed	Wildlife Biologist	Migratory Birds; Threatened, Endangered and Sensitive Animal Species; Wildlife; Wetlands and Riparian Zones
Jill Schulte	Botanist	Areas of Critical Environmental Concern; Threatened and Endangered Plant Species
Jim Michels	Outdoor Recreation Planner	Recreation; Wilderness; Access and Transportation, Visual Resource Management
Tyrell Turner	Rangeland Management Specialist	Vegetation; Invasive, Non-Native Species; Rangeland Management
Mike Selle	Archaeologist	Cultural and Paleontological Resources
Bob Lange	Hydrologist	Air Quality; Water Quality, Surface and Ground; Hydrology and Water Rights; and Soils
Christina Barlow	Natural Resource Specialist	Wastes, Hazardous or Solid
Jim Michels	Fire / Fuels Technician	Fire Management, Forest Management
Melissa Kindall	Range Technician	Wild Horses
WestWater Engineering Inc. (Third Party Contractor)		
Jim Ferguson Mary Nichols	Project Lead/ Wildlife Biologist Geologist	Air Quality; Water Quality, Surface and Ground; Hydrology and Water Rights; Geology and Minerals; and Soils
Carl Conner Mary Nichols	Archaeologist Geologist	Areas of Critical Environmental Concern; Cultural Resources; Paleontological Resources; Wastes, Hazardous or Solid; Access and Transportation; Wilderness; Realty Authorizations; Recreation; and Visual Resources
Rusty Roberts Amie Wilsey	Biologist, Range Scientist Environmental Scientist/ Biologist	Threatened and Endangered Plant Species; Invasive, Non-Native Species; Wetlands and Riparian Zones; Vegetation; Fire Management; Rangeland Management; and Wild Horses
Mike Klish Amie Wilsey	Prin. Environmental Scientist/Biologist Environmental Scientist	Migratory Birds; Threatened, Endangered and Sensitive Animal Species; Wildlife, Terrestrial and Aquatic
Jim Ferguson	Project Lead/ Wildlife Biologist	Forest Management

Finding of No Significant Impact/Decision Record (FONSI/DR)

DOI-BLM-CO-110-2010-0219-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment (EA) and analyzing the environmental effects of the Proposed Action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the Proposed Action.

WestWater Engineering, an environmental consulting firm, with the guidance, participation, and independent evaluation of the U.S. Bureau of Land Management (BLM) prepared this document. The BLM, in accordance with 40 CFR 1506.5 (a) and (c), is in agreement with the findings of the analysis and approves and takes responsibility for the scope and content of this document.

DECISION/RATIONALE: It is my decision to authorize the construction, maintenance, and operation of the natural gas pipelines and water lines as described in the Proposed Action, including the above-grade facilities and the temporary use areas, with the following mitigation measures:

MITIGATION MEASURES:

Operator Committed Mitigation:

1. Topsoil will be removed for storage from all sites at a minimum depth of 6 inches along the ROW and left undisturbed until being re-spread for reclamation. Soil storage areas will be clearly marked to restrict vehicle/equipment use to only what is necessary to move the soil. Metal fence posts, construction fencing, construction barriers, or other physical barriers will be placed at regular intervals between the working surfaces and soil storage areas. Storing soil on the non-working side of the trench may be adequate if signed or given some type of visual indicator to limit physical impacts.
2. Under no circumstances will topsoil or subsoil excavated from the trench down to the Effective Rooting Depth (ERD) for the reclamation plants (Reclamation ERD) be used as padding in the trench, to fill sacks for trench breakers, or for any other use as construction material. Reclamation ERD will be a minimum of 16 inches and a maximum of 24 inches below the ground surface for all soils.
3. Prior to seed application, the seedbed shall be prepared via tilling the soil to a minimum depth of 4 inches by utilizing a disk or harrow. In all accessible areas, seeding will be accomplished using a rangeland drill. Seed shall be drilled to a depth of 0.25 inch to 0.50 inch. In areas where a rangeland drill cannot access, seed will be hand broadcast at twice the drill rate, and harrowed to provide an adequate degree of soil to seed contact (Plan of Development).

4. All temporary and permanent, structural and non-structural storm water Best Management Practices (BMPs) would be installed and maintained as outlined in the Storm Water Management Plan (SWMP) for the Proposed Action. An associated BMP map would be included in the SWMP to address specific storm-water management practices to be employed during the construction and reclamation phases of the Ryan Ridge pipeline corridors. All storm-water management activities would be performed in accordance with the Colorado Department of Public Health and Environment (CDPHE), Colorado Discharge Permit System, Permit No. COR030000.

5. Bargath will be responsible for achieving a reclamation success rate equal to a minimum cover and composition of 80 percent of the Desired Plant Community (as defined by the ecological site) or in relation to the seed mix applied within three growing seasons after the application of seed. This community must be capable of persisting on the site without intervention and allow for successional processes consistent with achieving the seral stage on the site prior to surface disturbance.

6. Upon reseeding activities, certified, weed-free straw mulch will be crimped into the surface of the disturbed ROWs to provide for additional site stability and to enhance soil/seedbed moisture retention.

7. Monitoring of the reclaimed ROWs will be performed to document site stability, desired vegetative establishment, and noxious weed occurrence. Reclamation monitoring efforts will be performed and the results of the respective monitoring program will be provided to the BLM in the form of a Reclamation Report that is submitted to the BLM by September 30th of each year. The purpose of this report will be to provide a description and photo-documentation of the projects, to provide information such as reclamation status, date reseeded, acres reseeded, percent re-vegetated, noxious weed presence, and other applicable comments. Bargath will employ any necessary additional reclamation and/or weed management efforts based on the results of the reclamation monitoring, and will ensure that the BLM is notified prior to the respective activities (Plan of Development).

BLM Required Mitigation:

Preliminary:

1. All activities would be required to comply with all applicable local, State, and Federal laws, statutes, regulations, standards, and implementation plans. This would include: compliance with all laws, rules, and regulations addressing the emission of and/or the handling, use, and release of any hazardous substance that poses a risk of harm to human health or the environment; acquiring all required State and Rio Blanco County permits; effectively coordinating with existing ROW holders; and implementing all applicable mitigation measures required by each permit.

Air, Water, Soils:

2. The pipeline ROW and access roads would be treated with water or a BLM-approved chemical dust suppressant during construction activities so that there is not a visible dust trail behind vehicles and/or construction equipment. Only water needed for abating dust should be applied; the water should be fresh water free of chemicals, oils, or solvents.

3. Stockpiled topsoil and spoil piles will be separated and clearly labeled to prevent mixing during reclamation efforts.

4. During pipeline construction, the ROW should remain undisturbed to the maximum extent possible. That is, only the minimum necessary disturbance is approved for making the working surface safe and passable. Topsoil will not be removed under areas used for the storage of soils and, if possible, topsoil will not be removed from working surfaces. Material below or adjacent to the trench spoils will not be used to feed pipeline padding machines.

All areas where the topsoil has been removed and soils have become compacted will be ripped to a depth of 18 inches below the finished grade or to bedrock. Another suitable method of de-compaction may be used before topsoil is re-spread with approval of the BLM Authorized Officer (AO). Areas where the topsoil has not been removed, but have been compacted, must be de-compacted by disking or other methods to prepare the soils for reclamation.

5. After initial construction activities are completed and if soil productivity is diminished from its pre-disturbance condition, then reseedling, hydro-mulching, or other efforts will be initiated to re-establish soil productivity during reclamation activities.

6. All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the AO.

Hazardous or Solid Wastes:

7. The holder shall employ, maintain, and periodically update to the best available technology(s) aimed at reducing emissions, fresh water use and hazardous material utilization, production and releases.

8. All substances that pose a risk of harm to human health or the environment shall be stored in appropriate containers. Fluids that pose a risk of harm to human health or the environment, including but not limited to produced water, shall be stored in appropriate containers and in secondary containment systems at 110% of the largest vessel's capacity. Secondary fluid containment systems, including but not limited to tank batteries shall be lined with a minimum 24 mil impermeable liner.

9. Where required by law or regulation to develop a plan for the prevention of releases or the recovery of a release of any substance that poses a risk of harm to human health or the environment, provide a current copy of said plan to the Bureau of Land Management's White River Field Office.

10. Construction sites and all facilities shall be maintained in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

11. As a reasonable and prudent right-of-way holder, acting in good faith, the holder will report all emissions or releases that may pose a risk of harm to human health or the environment, regardless of a substance's status as exempt or nonexempt and regardless of fault, to the Bureau of Land Management's White River Field Office at (970) 878-3800. The holder will provide for the immediate clean-up and testing of air, water (surface and/or ground) and soils contaminated

by the emission or release of any substance that may pose a risk of harm to human health or the environment, regardless of that substance's status as exempt or non-exempt. Where the holder fails, refuses or neglects to provide for the immediate clean-up and testing of air, water (surface and/or ground) and soils contaminated by the emission or release of any quantity of a substance that poses a risk of harm to human health or the environment, the Bureau of Land Management's White River Field Office may take measures to clean-up and test air, water (surface and/or ground) and soils at the lessee/holder's expense. Such action will not relieve the holder of any liability or responsibility.

12. With the acceptance of this authorization, the commencement of development under this authorization, or the running of thirty calendar days from the issuance of this authorization, whichever occurs first, and during the life of the pipeline, the holder, and through the holder, its agents, employees, subcontractors, successors and assigns, stipulates and agrees to indemnify, defend and hold harmless the United States Government, its agencies, and employees from all liability associated with the emission or release of substances that pose a risk of harm to human health or the environment.

Vegetation, Reclamation, and Noxious/Invasive Weed Species:

13. Bargath will promptly revegetate all areas of earthen disturbance not necessary for production, with the following seed mix:

White River Field Office Native Seed Mix #3

Species	Seeding Rate Pure Live Seed (PLS)*
Western Wheatgrass (Rosanna)	2 lb/ac. PLS
Indian ricegrass (Nezpar)	1 lb/ac. PLS
Bluebunch wheatgrass (Secar)	2 lb/ac. PLS
Thickspike wheatgrass (Critana)	2 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Utah Sweetvetch	11b/ac. PLS
Alternates: Needle and Thread Grass and Globemallow	

* Seeding rate is for drilled seed; for broadcast seeding the rate will be doubled.

14. Re-vegetation will commence immediately after construction, unless directed otherwise by BLM.

15. Additional reclamation efforts will be undertaken at Bargath's expense. Reclamation achievement will be evaluated using the Public Land Health Standards that include Indicators of Rangeland Health. Rehabilitation efforts must be repeated if it is concluded that the success rate is below an acceptable level as determined by the BLM.

16. The holder should implement an integrated weed management plan according to BLM manual 9015-Integrated Weed Management (BLM 1992; available at <http://www.blm.gov/ca/st/en/prog/weeds/9015.html>). Prior to the season of construction, the applicant should submit Pesticide Use Proposals for the use of herbicides appropriate for control/eradication of the noxious weed species along the proposed pipeline ROW including: cheatgrass, houndstongue, common mullein, and bull thistle.

17. The holder should eliminate any noxious plants before any seed production has occurred. Application of pesticides and herbicides on public lands will conform to BLM manual 9015 and the BLM White River Resource Management Plan, Appendix B, Management of Noxious Weeds (BLM 1997). Eradication should make use of materials and methods approved in advance by the AO. The holder will clean all off-road equipment to remove seed and soil prior to commencing operations on public lands within the project area.

18. Long-term weed control on above grade pipeline facilities will utilize methods and materials approved by BLM as directed by the AO.

19. In order to restrict vehicles from traveling the ROW after construction has been completed, Bargath would post signs at regular intervals and at logical places of ingress and egress to and from the ROW. The posted signs would alert the public that the ROW is under reclamation and travel upon the surface is strictly prohibited. Placement of woody material on the ROW will also deter vehicular use of the ROW during reclamation. Beyond required maintenance; no continued vehicle access along the ROW is authorized by this ROW grant.

Fire, Forestry, and Visual Resources:

20. In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be appraised and purchased from the BLM. Trees or shrubs that must be removed for construction or ROW preparation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. Trees removed during construction that are not needed for reclamation purposes shall be cut in four foot lengths (down to 4 inches diameter) and placed in manageable stacks immediately adjacent to a public road to facilitate removal for company use or removal by the public. Woody materials required for reclamation shall be stockpiled along the margins of the authorized use area separate from the topsoil piles. Once the disturbance has been recontoured and reseeded, stockpiled, unlimbed, woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20 percent ground cover. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.

21. Woody debris remaining from clearing of the woodland species from the corridors must be disposed of in a manner that does not result in increased wildfire risks. General requirements include no windrowing or piling of woody debris, and removal of firewood size material from the sites.

T&E Species:

22. In the future, if new information reveals project-related impacts to any species listed as endangered or threatened, which exceed the impacts described in this document, Section 7 consultation with U.S. Fish and Wildlife Service (FWS) must be initiated.

Wildlife:

23. Goshawks would be included in the raptor nest surveys. In subsequent years, raptor nest surveys are to be completed prior to any development activity during the raptor nesting season (April 1 to August 15). Goshawk nests found during these surveys would be subject to Conditions of Approval as stipulated in the White River Resource Management Plan (BLM 1997).

24. Based on current survey results, lateral separation, and intervening vegetation and terrain between project work and known nest sites, the following lands would be subject to raptor nest seasonal restrictions from April 1st through August 15th (pending exceptions or modification based on subsequent nest survey and monitoring results):

T2S R98W section 18: SENW
T2S R99W section 24: NENE, NWNE.

25. Seasonal raptor nesting restrictions and no surface occupancy restrictions will also be implemented when raptor nests are encountered within the recommended restriction buffer zones shown in Table 8 (BLM 1997).

Table 8: Timing Limitations and Recommended Buffers

Species	Buffer Zone (miles)	Seasonal Restriction
Candidate, Threatened and endangered species, and BLM sensitive species	0.5	Feb. 1 st to Aug. 15 th
Other Raptors	0.25	Feb. 1 st to Aug. 15 th

26. No Surface Occupancy (NSO) stipulations of 0.25 mile radius would be applied to any Endangered, Threatened, Candidate, or BLM Sensitive raptor nests found during field surveys and 0.125 mile for other raptor species (BLM 1997).

27. The holder will place escape ramps at all livestock and wildlife trails intersected by the trench. Open trenches will be inspected regularly for injured or trapped wildlife. If injured and/or trapped animals are found in the trench, Bargath will contact the local CDOW, District Wildlife Manager. Pipe placed in the trench will be capped overnight to prevent wildlife from entering the pipe and becoming trapped or injured.

Cultural and Paleontological Resources:

28. Bargath’s proposed edge of disturbance would avoid the 5RB5950 site by 10 meters. Fencing would be placed along the edge of their disturbance near this site to keep vehicles and personnel from accessing the site during construction. A BLM authorized monitor would be on-site during construction and/or reclamation activities to ensure that the cultural resource avoidance measures established for this project are followed, and no inadvertent damage occurs to cultural properties

29. All employees of the holder and any subcontractors must be informed by the project holder before commencement of operations that any disturbance to, defacement of, or removal of archaeological, historical, or cultural material (including potsherds and arrowheads) would be treated as law enforcement issues. The project holder would be held accountable for the conduct of its employees and subcontractors in this regard.

30. If subsurface cultural materials are discovered during operations, all work in the vicinity of the resource would cease, and the BLM AO would be notified immediately. The holder would take any additional measures requested by the AO, including the possibility of hiring a qualified

archaeologist to carry out specific instructions. Within five working days of the reported discovery, the AO would inform the holder as to:

- whether the materials appear eligible for the National Register for Historic Places (NRHP);
- the mitigation measures the holder would likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- the timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer (SHPO), that the findings of the AO are correct and that mitigation is appropriate.

If the holder wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO would assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the holder would be responsible for mitigation cost. The AO would provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the holder would then be allowed to resume construction

31. Pursuant to 43 CFR 10.4(g), the holder of this authorization (i.e., the holder) must immediately notify the AO by telephone and with written confirmation upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the holder must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

32. A paleontological monitor would be present at any time that it becomes necessary to excavate into the underlying rock formation in order to construct the pipeline. If Bargath must blast the underlying rock formation it will be necessary for the paleontological monitor to stop work on the trench and examine the rock ejected from the trench before work can continue. After the loose rock is removed from the trench, work on trench excavation will be stopped again to allow the paleontological monitor to evaluate the material for fossil resources.

33. Should fossil resources be discovered at any time during construction, all construction activity in the vicinity of the discovery shall cease until the BLM and an approved paleontologist have time to evaluate the discovery and recover the remains. Work shall not resume in the area of the find without written approval of the AO. The holder is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the holder is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the holder as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the holder will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the holder wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the holder

will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the holder will then be allowed to resume construction.

Access and Transportation:

34. All activities would be required to comply with applicable local, state, and federal transportation laws, statutes, regulations, standards, and plans. Activities would strictly adhere to Gold Book fourth edition surface operating standards for oil and gas exploration and development (USDI, USDA 2007) and BLM manual section 9113 (BLM 1985).

35. County Road 68 will be returned to its previous condition by the applicant. All non-county roads used to access pipeline facilities would be maintained in their current condition or better.

36. Further mitigation of impacts to access and transportation should be achieved through management practices including:

- use of a construction yard as the primary parking for personal vehicles;
- encouragement and/or arrangement for employees and contractors to carpool to and from the site;
- requiring contractors and employees to comply with all posted speed limits;
- compliance with county and state weight restrictions and limitations;
- controlling dust along unsurfaced access roads and minimizing the tracking of mud onto paved roads; and
- post-construction restoration of unsurfaced roads to equal or better condition than existed before construction.

GIS Reporting:

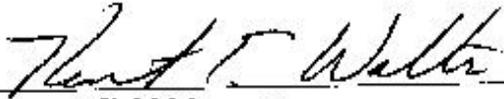
37. The applicant shall provide the BLM Authorized Officer with data in a format compatible with the WRFO's ESRI ArcGIS Geographic Information System (GIS) to accurately locate and identify the ROW and all constructed infrastructure, (as-built maps) within 60 days of construction completion. Acceptable data formats are: (1) corrected global positioning system (GPS) files with sub-meter accuracy or better; (2) ESRI shape files or geo databases; or at last resort, (3) AutoCAD .dwg or .dxf files. Option 2 is highly preferred. In ALL cases the data must be submitted in UTM Zone 13N, NAD 83, in units of meters. Data may be submitted as: (1) an email attachment; or (2) on a standard compact disk (CD) in compressed (WinZip only) or uncompressed format. All data shall include metadata, for each submitted layer, that conforms to the Content Standards for Digital Geospatial Metadata from the Federal Geographic Data Committee standards. Questions should be directed to WRFO BLM GIS staff at (970) 878-3800.

COMPLIANCE/MONITORING: On-going compliance inspections and monitoring will be conducted by WRFO staff. Specific mitigation developed in the associated Environmental Assessment will be followed. The holder will be notified of compliance related issues, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

NAME OF PREPARER: Stacey Burke

NAME OF ENVIRONMENTAL COORDINATOR: Heather Sauls

SIGNATURE OF AUTHORIZED OFFICIAL:


Field Manager

DATE SIGNED:

4/28/11

ATTACHMENTS:

Figure 1: Location of Project Area

Figure 2: Location of Temporary Use Areas and Pipeline Corridors

BLM White River Resource Area

Location of Project Area

CO-110-2010-0219-EA

Ryan Gulch Gathering Project - Ryan Ridge

Figure 1

