

**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-110-2011-0100-EA

**CASEFILE/PROJECT NUMBER:** COC74876

**PROJECT NAME:** Puckett natural gas gathering pipeline

**LEGAL DESCRIPTION:** Sixth Principal Meridian  
T.2S., R.98 W.,  
sec. 3, lot 13.

**APPLICANT:** Puckett Land Company (Puckett)

**ISSUES AND CONCERNS:** The pipeline to be accessed by this proposed pipeline crossed an historic brush fence at an unspecified location which may or may not be near the current proposed action.

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** Puckett has submitted an application to construct a buried natural gas pipeline to connect their RG Federal 4D-34D well to an existing gathering pipeline. The well and access road was analyzed in [DOI-BLM-CO-110-2010-0228-EA](#) but the pipeline was not included in the project because the well was planned as a test well which could be shut-in, vented, or flared. Due to unanticipated geological complications, the viability of the Fed 4D-34D well is dependent on the ability to immediately access a pipeline upon completion.

***Proposed Action:*** Puckett proposes to construct, operate, maintain, and ultimately terminate a six inch buried steel natural gas pipeline. The proposed route is approximately 900 feet long, with 50 feet on private land and 850 feet on public lands. The requested width is 50 feet, resulting in potential surface disturbance and encumbrance of approximately 0.97 acre of public land. The pipeline would be buried four feet deep and would transport gas from the Ryan Gulch Federal 4D-34D well to an existing pipeline system held by Bargath, Inc., a subsidiary of Williams Production RMT Co. The proposed route was identified based on the tie-in point designated by Bargath.

Construction of the Facilities

Standard pipeline construction equipment, such as a dozer, a track-hoe, and a side boom would be used during construction as well as support vehicles such as pickups, and flatbed trailers.

The right-of-way (ROW) limits would be flagged prior to commencement of construction. Trees would be cut and removed, and other vegetation would be removed and stored along the edge of the ROW. Topsoil would be stripped to a depth as designated by the authorized officer and windrowed along the edge of the edge of the ROW. The trench would be excavated and the spoils windrowed along the ROW.

The pipeline segments would be welded and laid in the trench to a depth of four feet. The trench would then be backfilled and the right-of-way recontoured. The backfilling and recontoured would take place immediately after laying the pipe to minimize the amount of open trench.

#### Stabilization and Rehabilitation

Topsoil would be replaced upon completion of recontouring efforts. The ROW would be reseeded using BLM Native Seed Mix #3, unless otherwise directed by the authorized officer. Vegetative materials previously removed to the edges of the ROW would be scattered across the disturbed area.

#### Operation and Maintenance

The ROW would be monitored on a regular basis. Annual surveys will be performed to identify noxious weed populations and monitor revegetation efforts. Noxious weed removal, via mechanical or chemical methods, as well as reseeded will take place as necessary.

**No Action Alternative:** The pipeline would not be authorized nor constructed. The well would remain uncompleted and non-producing unless an alternate transport method could be found.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** None.

**PURPOSE & NEED FOR THE ACTION:** The need for this action is established by the BLM's responsibility under FLPMA and MLA to respond to the applicant's request to maintain their natural gas pipeline crossing public lands. The purpose of the action is to allow the development of Federal Leases on BLM surface through the associated action of transportation of natural gas from the field to the market place.

**Decision to be made:** The decision to be made by White River Field Office is whether to authorize the construction, operation, maintenance, and termination of the described natural gas pipeline and under what 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: Pages 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 Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. 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:

**INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST**

The proposed action was presented to, and reviewed by the White River Field Office interdisciplinary team on 04/08/2011.

Table 1.

| <b>DETERMINATION OF STAFF:</b>                    |                                   |   |
|---|-----------------------------------|---|
| <b>Determination</b>                              | <b>Resource</b>                   | <b>Rationale for Determination*</b>   |
| <b>Natural, Biological and Cultural Resources</b> |                                   |   |
| NI  | Air Quality                       | This is a relatively short pipeline segment and construction activities are not anticipated to generate emissions or dust to a degree that would be measurable. Emissions would only occur during construction activities and therefore would be short-term (less than 1 year).   |
| PI  | Soils                             | See impacts as described below.   |
| PI  | Wastes<br>(hazardous or solid)    | The proposed action has potential to result in the release of potentially harmful chemicals if unmitigated.   |
| NI  | Water Quality<br>(Surface/Ground) | With successful reclamation, impacts to water quality are not expected due to the location and short-term nature of the disturbance. This project is in the headwaters of Ryan Gulch, an ephemeral to intermittent watershed, and therefore sediment that may be produced due to soil disturbance is unlikely to be transported to surface waters. Groundwater is not expected to be impacted with proper construction practices (see soils section). |
| NP  | Wetlands/Riparian Zones           | Proposed project site is over 6 ephemeral channel miles from the nearest perennial stream (Piceance Creek).   |
| PI  | Vegetation                        | See Below.  |

| <b>DETERMINATION OF STAFF:</b> |  |  |
|--------------------------------|--|--|
| <b>Determination</b>           | <b>Resource</b>                                      | <b>Rationale for Determination*</b>  |
| PI                             | Invasive, Non-native Species                         | In terms of plant community composition, structure, and function, the principal impact over the long term would occur if cheatgrass or noxious weeds are allowed to establish and proliferate on the disturbed area. If revegetation is prompt and effective, there likely would be no long term negative impact.  |
| NI                             | Threatened, Endangered, and Sensitive Plant Species  | The project would no impact special status plant species or their associated habitats. The nearest occupied habitat is approximately 4 miles to the east.  |
| NI                             | Threatened, Endangered, and Sensitive Animal Species | The project would not directly involve habitat of animals associated with the Endangered Species Act. The project site is separated from Colorado pikeminnow critical habitat on the White River by 6 valley miles of ephemeral channel and ~12 valley miles of perennial channel (Piceance Ck.). The nearest occupied habitat (below Taylor Draw dam) is 47 river miles further downstream. See <i>Migratory Birds</i> section for discussion of BLM sensitive species.   |
| NI                             | Migratory Birds                                      | The project's influence on migratory bird nesting activity and habitat would be discountable, since much of the project is located in close proximity to existing sources of disturbance. Sagebrush habitats and those associated species, particularly the BLM-sensitive Brewer's sparrow, are confined to a 230 ft reach adjoining the well pad margin and 170 ft along a woodland/sagebrush interface within 50 meters of a regularly travelled well access road. The intervening 550 ft lies on a woodland margin composed principally of younger age class trees which generally support lower densities of the more abundant and generalized woodland species. Additionally, pipeline installation would take place at a time when most species have completed nesting and fledged their young (mid-July). A former northern goshawk nest site lies about 0.25 miles south of the project area. BLM monitoring has established that the site has not been occupied since 2006. |
| NP                             | Wildlife, Aquatic                                    | Proposed project site is over 6 ephemeral channel miles from the nearest perennial stream (Piceance Creek).  |
| NI                             | Wildlife, Terrestrial                                | The utility of the proposed project area as big game winter range is strongly influenced by current use and activity. The pipeline would follow an existing fence line corridor, cross a narrow interval of woodland between the well pad and regularly travelled well access road, and skirt the edge of a small sagebrush park before crossing the well access. The project's additive influence on wildlife resources would be inconsequential.   |
| NP                             | Wild Horses  | The proposed action is not located within a designated wild horse management area, therefore would have no impacts on wild horses.   |
| NP                             | Cultural Resources                                   | Class III Inventory (Darnell 2011 Compliance Dated 6/24/2011) identified no cultural resources in the APE.   |
| PI                             | Paleontology   | See Below.   |

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for impact analyzed in detail in the EA

## **NATURAL, BIOLOGICAL, AND CULTURAL RESOURCES**

### **SOILS**

*Affected Environment:* The classification of soils that may be impacted by the project and are within 30 meters of the proposed pipeline is shown in Table 2. There are no fragile soils or lands prone to landslides on Federal lands that will be impacted by this project.

**Table 2 Soil Classifications within 30 Meters of the Project**

| <b>Soil Classification</b>             | <b>Range Site Description</b> | <b>Potentially Impacted Acres</b> |
|--|-------------------------------|-----------------------------------|
| Piceance fine sandy loam, 5-15% slopes | Rolling Loam                  | 4                                 |
| Rentsac channery loam, 5-50% slopes    | PJ Woodlands                  | 4                                 |

*Environmental Consequences of the Proposed Action:* Installing the pipeline will disturb soils due to vegetation clearing and grading, trenching, and heavy equipment traffic during construction and reclamation. Compaction due to construction activities would reduce aeration, permeability and water-holding capacities of the soils. An increase in surface runoff could be expected from these areas and they are likely to be less resilient to erosion from surface runoff. With proper best management practices (BMPs) for storm water, construction practices and reclamation practices impacts off the construction site are not expected.

Direct impacts from the pipeline installation would include removal of vegetation, exposure of the soil, mixing of horizons, compaction, and loss of topsoil productivity, and susceptibility to wind and water erosion, and the loss of topsoil productivity. These direct impacts could result in increased indirect impacts such as runoff, erosion. If BMPs for storm water and reclamation is successful, impacts from this project will be minor and localized to disturbed areas.

There is no description of soil handling procedures during installation of the pipeline. Typical soil handling procedures for these relatively short and small pipelines is to use an excavator to dig a trench with a first out last in philosophy. If soils are segregated based on particle size for use in pipeline installation, such as removing fines for pipeline padding, the subsoil's physical properties can be impacted. Subsoils, specifically the effective rooting depth (ERD) soils are essential for the successful reestablishment of vegetation. If the ERD is used to pad the pipeline, these subsoils would be "mined" of the fine particles leaving the coarser material to fill the trench above the pipeline. It is likely that the rock content of the ERD subsoils could be substantially increased from pre-disturbance conditions, and rock content on the soil surface could increase. If rock content is too high on the soil surface it can make spreading the topsoil difficult and/or ineffective.

Mitigation for soil handling procedures described below should protect the integrity of subsoils and reduce the risk of changing the physical properties of the ERD to the point that would impact soil stability and the success of reclamation.

The project could result in contamination of surface and subsurface soils due to unintentional leaks or spills and affect the productivity of soils. Typically contaminated soils would be removed and disposed of in a permitted facility or would be bioremediated in place.

*Environmental Consequences of the No Action Alternative:* No impacts to soils would occur.

*Mitigation:* The following should be attached as Conditions of Approval (COAs):

1. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer.
2. In order to protect rangeland health standards for soils, erosion features such as rilling, gullyng, piping and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. 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 when necessary.
4. During pipeline construction, the ROW will remain undisturbed to the maximum extent possible. That is, only the minimum necessary disturbance will occur to make 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.
5. Under no circumstances will topsoil, soil material below or adjacent to the trench spoils or subsoil excavated from the trench down to the ERD (Effective Rooting Depth) 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.
6. 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 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.
7. If, after initial construction activities are completed and if soil productivity is diminished from its pre-disturbance condition, then reseeding, hydro-mulching or other efforts will be initiated to re-establish soil productivity during reclamation activities.

8. After pipeline construction activities are completed Puckett Land Company 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.

*Finding on the Public Land Health Standard for upland soils:* With mitigation this action is unlikely to reduce the productivity of soils impacted by surface disturbing activities.

## **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.

*Mitigation:* The following should be attached as Conditions of Approval (COAs):

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

6. 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/operator’s expense. Such action will not relieve the holder of any liability or responsibility.

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

*Affected Environment:* Surface Water: This project is mostly within the Ryan Gulch drainage which is a tributary of Piceance Creek and the White River. There is a small portion of the project that is in Yellow Creek. The following water segments in the White River Basin may be impacted by this project:

**Water Quality Classification Table 3**

| Segment | Segment Name  | Protected Beneficial Uses |                            |             |
|---------|---|---------------------------|----------------------------|-------------|
|         |   | Aquatic Life              | Recreation                 | Agriculture |
| 16      | All tributaries to Piceance Creek from the source to the confluence of White Creek  | Warm 2                    | Primary Contact Recreation | Yes         |
| 13a     | Mainstream of Yellow Creek to the confluence with Barcus Creek and all tributaries to Yellow Creek from the source to the White River | Warm 2                    | Non-Contact Recreation     | Yes         |

\* Colorado Department Of Public Health And Environment, Water Quality Control Commission, Regulation No. 37 Classifications and Numeric Standards For Lower Colorado River Basin, Effective June 30, 2010

Tributaries to Yellow Creek and Ryan Gulch are protected for warm water aquatic life (Warm 2). The warm designation means the classification standards would be protective of aquatic life normally found in waters where the summer weekly average temperature frequently exceeds 20 °C. The Warm 2 designation means that it has been determined that these waters are not capable of sustaining a wide variety of warm water biota. These waters would also have standards that are protective from primary contact recreation and agriculture.

The project area is located in an area of groundwater recharge for the Yellow Creek and Piceance Creek. Precipitation in this area generally moves from areas of recharge in surface waters and in shallow groundwater during spring melt. A portion of annual precipitation infiltrates to deeper bedrock aquifers that contribute to contact springs. Groundwater occurs in both bedrock and alluvial aquifers beneath Yellow Creek, Piceance Creek and its

tributaries along valley bottoms and are comprised of unconsolidated sand, gravel, silt, and clay.

Contact springs are common in the area and are often the result of upper bedrock aquifers consisting of fractured, lean oil shales and siltstones of the Green River formation above and below the Mahogany Zone or from fractured marlstone of the saturated portion of the overlying Uinta Formation. Perched groundwater zones occur locally within the Uinta Formation. These perched zones can occur in the ridges between surface water drainages and may be manifested as springs and seeps above the valley floor in outcrop areas. Recharge areas for most of these springs and groundwater zones are along the Roan Cliffs, to the south of the project area.

*Environmental Consequences of the Proposed Action:* Clearing, grading, and soil stockpiling activities associated with the proposed action would alter overland flow and natural groundwater recharge patterns. Potential impacts include surface soil compaction caused by construction equipment and vehicles, which would likely reduce the soil's ability to absorb water, increasing the volume and rate of surface runoff, which in turn would cause increased surface erosion.

This project is in the headwaters of Ryan Gulch and Yellow Creek, therefore impacts to surface waters would be during storm events or due to changes in groundwater. Runoff associated with storm events may increase sediment/salt loads in surface waters down gradient of the disturbed areas. Sediment may be deposited and stored in minor drainages where it would be readily moved downstream during heavy convection storms. Some sediment from project activities may eventually be carried into Yellow Creek, Piceance Creek and ultimately to the White River. The distance to the White River would have an attenuating effect on the amount of sediment contributed by project activities to the river. Surface erosion would be greatest during the construction and early production phases of the project and would be controlled using BMPs for storm water. It is unlikely this increase in sedimentation would be measurable in Yellow Creek or in Piceance Creek.

Impacts, should they occur, would likely be greatest shortly after the start of construction activities and would likely decrease in time due to stabilization, reclamation, and revegetation efforts. Successful reclamation would go a long way towards reducing indirect impacts.

*Environmental Consequences of the No Action Alternative:* No impacts identified.

*Mitigation:* None.

*Finding on the Public Land Health Standard for water quality:* It is unlikely that either construction of the pad and access road or drilling would result in exceeding state water quality standards. Cumulative impacts from this activity and others may eventually impact sediment yields to the degree that they impact listing of Yellow Creek on the 303d list of Impaired Waters.

## VEGETATION (includes a finding on Standard 3)

*Affected Environment:* The proposed pipeline is located within Rolling Loam and Pinyon/Juniper ecological sites. Vegetation cover of this site is comprised primarily of Wyoming big sagebrush (*Artemisia tridentata*), with scattered Pinyon (*Pinus edulis*) and Utah Juniper (*Juniperus osteosperma*) trees. The perennial grass understory consists primarily of Western wheatgrass (*Agropyron smithii*), Junegrass (*Koeleria cristata*), and Sandberg bluegrass (*Poa secunda*).

*Environmental Consequences of the Proposed Action:* The proposed action would disturb approximately 0.97 acre. The principal impact to vegetation would be complete removal of vegetation on the pipeline. Dust settling on vegetation adjacent to the construction site, especially on the downwind side, would temporarily reduce photosynthetic processes until adequate precipitation washes the leaves clean. In terms of plant community composition, structure, and function, the principal impact over the long term would occur if cheatgrass or noxious weeds are allowed to establish and proliferate on the disturbed area. If revegetation is prompt and effective, there likely would be no long term negative impact.

*Environmental Consequences of the No Action Alternative:* There would be no change from the present situation.

*Mitigation:* BLM recommends the following practices in order to ensure proper reclamation of disturbed areas:

1. Promptly revegetate all disturbed areas not necessary for production with Native Seed Mix #2 listed below. Woody debris should not be scattered at the site until **after** seeding operations are completed and would not exceed 20 percent total ground cover. Seed mixture rates are Pure Live Seed (PLS) pounds per acre. Drill seeding is the preferred method of application. If drill seeding cannot be accomplished, seed should be broadcast at double the rate used for drill seeding.

Table 4

| Cultivar | Species              | Scientific Name                             | Application Rate (lbs PLS/acre) |
|----------|----------------------|---|---------------------------------|
| Arriba   | Western Wheatgrass   | <i>Pascopyrum smithii</i>                   | 4                               |
| Rimrock  | Indian Ricegrass     | <i>Achnatherum hymenoides</i>               | 3.5                             |
| Whitmar  | Bluebunch Wheatgrass | <i>Pseudoroegneria spicata ssp. inermis</i> | 4                               |
| Lodorm   | Green Needlegrass    | <i>Nassella viridula</i>                    | 2.5                             |
| Timp     | Northern Sweetvetch  | <i>Hedysarum boreale</i>                    | 3                               |
|          | Sulphur Flower       | <i>Eriogonum umbellatum</i>                 | 1.5                             |

2. Use seed that is certified and free of noxious weeds. All seed tags will be submitted to the *designated Natural Resource Specialist* via Sundry Notice (SN) within 14 calendar days from the time the seeding activities have ended. The sundry will include the purpose of the seeding activity (i.e., seeding reclaimed pipeline disturbance, etc.). In addition, the SN will include the case file number for the right of way associated with the seeding activity, if

applicable, the name of the contractor that performed the work, his or her phone number, the method used to apply the seed (e.g., broadcast, hydro-seeded, drilled), an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.

Refer to the White River Field Office Reclamation Protocol document for more specific recommendations for soil handling and reclamation of this pipeline.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Upland plant communities in the project area currently meet the Standard and are expected to meet the Standard in the future following project implementation.

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

*Affected Environment:* The proposed location sits along a wide ridge top and lies adjacent to a well established road. The nearest system which supports riparian vegetation is Piceance Creek (privately-owned), which is separated from the project area by over five miles of ephemeral channel.

*Environmental Consequences of the Proposed Action:* Construction of the proposed well pad and access road would have no direct or indirect impact on riparian habitats. With the application of Best Management Practices (BMPs) associated with soil erosion there is no reasonable likelihood that fugitive sediments would have any influence on the function or condition of the Piceance Creek channel or its associated riparian characteristics.

*Environmental Consequences of the No Action Alternative:* There would be no action authorized that would have any direct or indirect influence on downstream riparian habitats.

*Mitigation:* None.

*Finding on the Public Land Health Standard for riparian systems:* The nearest system supporting riparian habitats is located over five miles from the project area. Neither the proposed nor the no action alternative would have any reasonable potential to influence the function or condition of the Piceance Creek channel or its riparian values.

## **INVASIVE, NON-NATIVE SPECIES**

*Affected Environment:* Houndstongue (*Cynoglossum officinale*) and cheatgrass (*Bromus tectorum*) are present in the general project and will readily invade areas of earthen disturbance.

*Environmental Consequences of the Proposed Action:* The proposed action would create about 0.97 acre of new earthen disturbance. If the disturbed area is not revegetated with desirable species and /or treated with herbicides to eradicate invasive, non-native species, it would likely be invaded and potentially dominated by various undesirable species resulting in increased potential for fire and subsequent spread of cheatgrass. Noxious weeds could also

spread from the project sites to surrounding native rangelands resulting in a long term negative impact. There would be a low likelihood of long term negative impact if the proposed mitigation is properly implemented.

*Environmental Consequences of the No Action Alternative:* There would be no change from the present situation.

*Mitigation:* Survey the project area for the presence of noxious/invasive species before and after construction. If undesirable species are found, they should be promptly treated using approved materials and methods. If invasive, non-native species establish within the project area, and spread onto adjoining BLM lands, the applicant will be responsible for control of those populations as well.

## **MIGRATORY BIRDS**

*Affected Environment:* The proposed location sits on the southern edge of an expansive Wyoming big sagebrush park. The understory consists of perennial species including: western wheatgrass, Sandberg bluegrass, and Junegrass. A few piñon and juniper trees are located throughout the site; however, the majority of woodlands are located south and east of the pad. The northern border of the pad sits immediately adjacent to Rio Blanco County (RBC) road 83, a well traveled gravel road.

The big sagebrush and piñon-juniper communities provide suitable nesting habitat for many species of migratory birds during the breeding season (May 15 – July 15) including but not limited to: Vesper sparrow, sage thrasher, blue-gray gnatcatcher, black-throated gray warbler, Bewick's wren, dusky flycatcher, and gray flycatcher. The only Birds of Conservation Concern (BOCC; designated regionally by the US Fish and Wildlife Service (USFWS) for long-term declining population trends) within the project area are Brewer's sparrow (BLM sensitive species) and juniper titmouse.

*Environmental Consequences of the Proposed Action:* Construction outside of the breeding/nesting season would have no direct impact on migratory bird nesting success, although there would be indirect impacts associated with pad development and drilling (see discussion below). Should pipeline construction (vegetation removal) be delayed and take place during the migratory bird nesting season (generally May 15 – July 15), there would be greater chance of displacement of birds, nest abandonment and potential mortality (mainly of nestlings).

*Environmental Consequences of the No Action Alternative:* There would be no conceivable influence on migratory birds under the no action alternative.

*Mitigation:* All earthwork (vegetation removal) associated with development of the pipeline will take place outside of the migratory bird nesting season (May 15 – July 15).

## **PALEONTOLOGY**

*Affected Environment:* The proposed pipeline is located in an area generally mapped as the Uinta Formation which the BLM, WRFO has classified as a PFYC 4/5 formation meaning it is known to produce scientifically noteworthy fossils (C.F. Armstrong and Wolny 1989)

*Environmental Consequences of the Proposed Action:* If it becomes necessary to excavate into the underlying sedimentary rock formation there is a potential to impact scientifically important or noteworthy fossils.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts for fossil resources under the No Action Alternative.

*Mitigation:* 1. The operator 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 operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

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

If the operator 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 operator 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 operator will then be allowed to resume construction.

2. If it becomes necessary to excavate into the underlying sedimentary rock to bury the pipeline an approved paleontological monitor shall be present before such excavations begin and throughout the excavation process..

#### **ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No flood plains, prime and unique farmlands, exist within the area affected by the proposed action. There are also no Native American religious or environmental justice concerns associated with the proposed action.

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

Table 5

| Other Elements                 | 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                 |                                  |   |

## VISUAL RESOURCES

*Affected Environment:* The Proposed Action would take place on Class III lands. According to BLM Manual H-8410-1, the management objective for Class III lands is to partially retain the existing character of the landscape, while allowing for a moderate level of change. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements and form found in the predominant natural features of the characteristic landscape. The area has been, and is currently being developed for the extraction of oil and gas and thus has a somewhat modified appearance on the landscape. The linear features in the area that attract attention are the road network, fence lines, and pipelines.

*Environmental Consequences of the Proposed Action:* The Proposed Action for the installation of the pipeline may attract some attention to the casual observer travelling RBC Road 83 (Bar D Mesa). The public traveling through the area will predominantly be the private land owners within the area and public land hunters during big game hunting seasons. The impacts from the proposed action on visual resources will be greatest during the construction phase of the project. The contrast of the newly disturbed dirt along with the equipment color and construction activity will draw the attention of the public towards the site. Post construction the public traveling through the area will notice evidence of travel along the pipeline route and the contrasting dirt along the edge of the construction site. The contrasts between the exposed dirt and the surrounding vegetation may be mitigated by revegetating the site through seeding efforts. Through the successful revegetation and reclamation of the site, the overall level of change on the landscape will be low and the VRM class III objective would be retained.

*Environmental Consequences of the No Action Alternative:* There would be no disturbance to the site attracting attention from the public traveling the adjacent county roads.

*Mitigation:* Seed the temporary use area and access route with appropriate seed mix as approved by the WRFO Rangeland Management Specialist.

**FOREST MANAGEMENT**

*Affected Environment:* The proposed action is located within a mature stand class of pinyon/juniper woodland as defined by a survey performed by White River Field Office personnel from 2003-2005. Productive exposure types occur on primarily lower gradient slopes and north and east aspects. Growth rates are higher in these areas due to soil features which allow for effective use of precipitation. This habitat type is further broken down based on the age class of the stand. In this case the affected stands are both mature and young. Mature pinyon/juniper trees on productive exposure establish themselves as the dominant plant community on the site. Young Pinyon/Juniper trees are a component of the plant community. Young trees tend to replace stands of plants such as sagebrush or mountain shrub communities over time. Young Pinyon trees are stem dominated promoting a conical Christmas tree like appearance. Young Juniper trees tend to have branches down to the ground and the duff layer may even cover the lowest branches. Both the young and mature stands are valuable locally as a source of fire wood and posts for fence construction. Encroachment sites of young Pinyon trees are valuable for Christmas tree harvest.

*Environmental Consequences of the Proposed Action:* Table 6 shows the estimated loss of woodland acres as a result of the Proposed Action. Following reclamation of it is expected that pinyon and juniper will invade the site within 50-70 years and would develop a mature stand within 250-350 years. Under the Proposed Action about 0.6 acres of woodlands would be removed. Impacts would be long-term until woodlands regenerate successfully. Removal of mature and middle-aged pinyon and juniper trees would reduce the potential for outbreak of woodland diseases and pest infestations.

**Table 6. Acreage of Woodland Disturbed by the Proposed Action**

| Well Name                  | Acreage In Woodlands |                 |          |                         |  | Stand Class                | Total Cords |
|----------------------------|----------------------|-----------------|----------|-------------------------|--|----------------------------|-------------|
|                            | Pad Acres            | Access Rd. (Ac) | Pipeline | Acres Disturbed (Total) |  |                            |             |
| Puckett Gathering Pipeline | 0                    | 0               | 0.6      | 0.6                     |  | Mature Productive Exposure | 3           |

*Environmental Consequences of the No Action Alternative:* Under this alternative there would be no construction of pipeline and no removal of pinyon and juniper woodlands.

*Mitigation:* In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. Trees should first be used in reclamation efforts and then any excess material made available for firewood or other uses.

- a) Woody materials required for reclamation shall be removed in whole with limbs intact and 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 woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20% ground cover. Limbed material shall be scattered across reclaimed areas in a manner that avoids the development of a mulch layer that suppresses growth or reproduction of desirable vegetation. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.
- b) Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. These trees 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.

## **RANGELAND MANAGEMENT**

*Affected Environment:* The proposed pipeline is within the Ryan pasture of the Square S allotment, where livestock belonging to the LOV Ranch and the Mantle Ranch are permitted to graze from mid October through April. There is a livestock water pond approximately ½ mile to the northwest of the proposed pipeline, which allows livestock to make substantial use of the general area.

*Environmental Consequences of the Proposed Action:* The proposed action will result in the short term loss of less than one AUM of livestock forage. During construction if airborne dust coats vegetation adjacent to the disturbance, the usability of that vegetation for forage will be negatively but briefly impacted (*see* Vegetation section). Overall, forage loss would likely still be less than 1 AUM until seeded species become established. If construction occurs when livestock are present, they would likely avoid the area due to the noise and activity during pipeline construction. Livestock grazing during the spring growth period on reclaimed areas before vegetation is adequately established would likely reduce reclamation success and make the area more vulnerable to weed establishment. It appears that the proposed pipeline will parallel a fence line along the long east-west portion and cross a fence near the west end.

*Environmental Consequences of the No Action Alternative:* There will be no change from the present situation.

*Mitigation:* If livestock use in the project area is at a level that would reduce reclamation success, install temporary fencing around those portions of the project that would benefit from grazing deferment for two to three growing seasons until seeded species are well established and can better tolerate grazing pressure. Install fencing in a manner that will not trap livestock or impede their movement through the general area. Temporary fencing must also be maintained and removed by the project proponent when reclamation is satisfactory. Brace fences prior to cutting and construct temporary fencing to maintain its functional purpose. After construction is complete, reconstruct any damaged fence according to BLM fencing specifications attached.

Any range improvement projects (e.g., fences, gates, waterlines, water tanks, etc.) that are damaged during construction of this project must be reported to the BLM and livestock grazing permittees; and repaired and returned to a satisfactory functional condition. A copy of the applicable BLM fence specifications will be included as part of the conditions of approval.

## **ACCESS AND TRANSPORTATION**

*Affected Environment:* Main access to the site is off RBC 83 (Bar D Mesa). There is a high level of oil and gas development in this area with a fair amount of related heavy truck and equipment traffic. No crossings of roads are anticipated from this project.

*Environmental Consequences of the Proposed Action:* Construction is expected to occur within existing pipeline ROW (rights of ways). Only a small increase in traffic can be expected as a result of the Proposed Action while construction vehicles use local and BLM roads to access the project sites. Use of BLM roadways in dry conditions may result in an increase of fugitive dust and may reduce visibility along the roadway when encountering oncoming traffic. Frequent use during wet conditions may cause road damage in the form of ruts that may require repairs.

*Environmental Consequences of the No Action Alternative:* Under the No Action Alternative, there would be no increase in traffic along the county roads.

*Mitigation:* Damage to existing roads as a result of the Proposed Action will be repaired to a condition that is similar to the original state or better than what existed prior to the commencement of construction. If dust becomes an issue along the Proposed Action due to traffic, access routes may require watering or some form of dust abatement.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The proposed action is located in the Ryan Gulch area of Rio Blanco County with existing oil and gas development. Off lease access is from the nearest public road, RBC 83. There is an access road 63 feet long to the pad.

*Environmental Consequences of the Proposed Action:* The geologic integrity of the producing formation will not be compromised due to the lack of a pipeline.

*Environmental Consequences of the No Action Alternative:* We accept the statement of the operator that to complete and test the well for the purpose of proving it capable of production in paying quantities without producing it continuously could damage the formation and reduce ultimate recovery.

*Mitigation:* The holder is responsible for obtaining and following any applicable State and local permits. The holder is responsible for coordinating with the holders of any adjoining linear facilities.

**CUMULATIVE IMPACTS SUMMARY:** This action is consistent with the scope of impacts addressed in the White River ROD/RMP. The cumulative impacts of oil and gas activities are

addressed in the White River ROD/RMP for each resource value that would be affected by the proposed action.

**REFERENCES CITED:**

Armstrong, Harley J., and David G. Wolny

1989 Paleontological Resources of Northwest Colorado: A Regional Analysis. Museum of Western Colorado, Grand Junction, Colorado.

Darnell, Nicole

2011 Class III Cultural Resources Inventory Report for the proposed Pipeline from RG Federal 4D-34D to an Existing Pipeline in Rio Blanco County, Colorado for Puckett Land Company. Grand River Institute, Grand Junction, Colorado: (#11-11-16: SHPO # )

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

**INTERDISCIPLINARY REVIEW:**

| <b>Name</b>          | <b>Title</b>                                       | <b>Area of Responsibility</b>   | <b>Date Signed</b> |
|----------------------|--|---|--------------------|
| Bob Lange            | Hydrologist  | Air Quality, Water Quality, Surface and Ground Hydrology and Water Rights, Soils  | 07/08/2011         |
| Zoe Miller           | Ecologist  | Areas of Critical Environmental Concern, Threatened and Endangered Plant Species  | 07/12/2011         |
| Michael Selle        | Archeologist                                       | Cultural Resources, Paleontological Resources   | 06/24/2011         |
| Mary Taylor          | Rangeland Management Specialist                    | Invasive, Non-Native Species, Vegetation , Rangeland Management   | 07/05/2011         |
| Ed Hollowed          | Wildlife Biologist                                 | Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife, Wetlands and Riparian Zones | 07/5/2011          |
| Christina Barlow     | Natural Resource Specialist/HazMat Coordinator     | Wastes, Hazardous or Solid  | 07/1/2011          |
| Chad Schneckenburger | Outdoor Recreation Planner                         | Wilderness, Access and Transportation, Recreation   | 07/12/2011         |
| Jim Michels          | Supervisory Natural Resource Specialist / Forestry | Forest Management   | 07/08/2011         |
| Garner Harris        | Zone Fire Management Officer                       | Fire Management   | 06/02/11           |
| Paul Daggett         | Mining Engineer                                    | Geology and Minerals  | 06/24/2011         |
| Jeanne Newman        | Realty Specialist                                  | Realty Authorizations   | 07/12/2011         |
| Melissa J. Kindall   | Range Technician                                   | Wild Horses   | 07/05/11           |

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

### **DOI-BLM-CO-110-2011-0100-EA**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE:** The environmental assessment and analysis of 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.

**DECISION/RATIONALE:** It is my decision to approve the proposed action with the addition of the mitigations listed below.

**MITIGATION MEASURES:**

1. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer.
2. In order to protect rangeland health standards for soils, erosion features such as rilling, gullyng, piping and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. 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 when necessary.
4. During pipeline construction, the ROW will remain undisturbed to the maximum extent possible. That is, only the minimum necessary disturbance will occur to make 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.
5. Under no circumstances will topsoil, soil material below or adjacent to the trench spoils or subsoil excavated from the trench down to the ERD (Effective Rooting Depth) 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.

6. 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 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.
7. If, after initial construction activities are completed and if soil productivity is diminished from its pre-disturbance condition, then reseeded, hydro-mulching or other efforts will be initiated to re-establish soil productivity during reclamation activities.
8. After pipeline construction activities are completed Puckett Land Company 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.
9. After pipeline-construction activities are completed, the Puckett Land Company will be responsible for taking measures to prevent off-road vehicle use along the pipeline ROW until reclamation has been fully successful or as directed by the AO.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.

16. 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/operator’s expense. Such action will not relieve the holder of any liability or responsibility.

17. 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.

18. Promptly revegetate all disturbed areas not necessary for production with Native Seed Mix #2 listed below. Woody debris should not be scattered at the site until **after** seeding operations are completed and would not exceed 20 percent total ground cover. Seed mixture rates are Pure Live Seed (PLS) pounds per acre. Drill seeding is the preferred method of application. If drill seeding cannot be accomplished, seed should be broadcast at double the rate used for drill seeding.

Table 4

| Cultivar | Species              | Scientific Name                             | Application Rate (lbs PLS/acre) |
|----------|----------------------|---|---------------------------------|
| Arriba   | Western Wheatgrass   | <i>Pascopyrum smithii</i>                   | 4                               |
| Rimrock  | Indian Ricegrass     | <i>Achnatherum hymenoides</i>               | 3.5                             |
| Whitmar  | Bluebunch Wheatgrass | <i>Pseudoroegneria spicata ssp. inermis</i> | 4                               |
| Lodorm   | Green Needlegrass    | <i>Nassella viridula</i>                    | 2.5                             |
| Timp     | Northern Sweetvetch  | <i>Hedysarum boreale</i>                    | 3                               |
|          | Sulphur Flower       | <i>Eriogonum umbellatum</i>                 | 1.5                             |

19. Use seed that is certified and free of noxious weeds. All seed tags will be submitted to the *designated Natural Resource Specialist* via Sundry Notice (SN) within 14 calendar days from the time the seeding activities have ended. The sundry will include the purpose of the seeding activity (i.e., seeding reclaimed pipeline disturbance, etc.). In addition, the SN will include the case file number for the right of way associated with the seeding activity, if applicable, the name of the contractor that performed the work, his or her phone number, the method used to apply the

seed (e.g., broadcast, hydro-seeded, drilled), an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.

20. Refer to the White River Field Office Reclamation Protocol document for more specific recommendations for soil handling and reclamation of this pipeline.

21. Survey the project area for the presence of noxious/invasive species before and after construction. If undesirable species are found, they should be promptly treated using approved materials and methods. If invasive, non-native species establish within the project area, and spread onto adjoining BLM lands, the applicant will be responsible for control of those populations as well.

22. All earthwork (vegetation removal) associated with development of the proposed location, pipeline, and new access road will take place outside of the migratory bird nesting season (May 15 – July 15).

23. The operator 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 operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

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

24. If the operator 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 operator 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 operator will then be allowed to resume construction.

25. If it becomes necessary to excavate into the underlying sedimentary rock to bury the pipeline an approved paleontological monitor shall be present before such excavations begin and throughout the excavation process.

26. In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. Trees should first be used in reclamation efforts and then any excess material made available for firewood or other uses.

27. Woody materials required for reclamation shall be removed in whole with limbs intact and 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 woody material shall be

scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20% ground cover. Limbed material shall be scattered across reclaimed areas in a manner that avoids the development of a mulch layer that suppresses growth or reproduction of desirable vegetation. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.

28. Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. These trees 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.

:29. If livestock use in the project area is at a level that would reduce reclamation success, install temporary fencing around those portions of the project that would benefit from grazing deferment for two to three growing seasons until seeded species are well established and can better tolerate grazing pressure. Install fencing in a manner that will not trap livestock or impede their movement through the general area. Temporary fencing must also be maintained and removed by the project proponent when reclamation is satisfactory. Brace fences prior to cutting and construct temporary fencing to maintain its functional purpose. After construction is complete, reconstruct any damaged fence according to BLM fencing specifications attached. Any range improvement projects (e.g., fences, gates, waterlines, water tanks, etc.) that are damaged during construction of this project must be reported to the BLM and livestock grazing permittees; and repaired and returned to a satisfactory functional condition. A copy of the applicable BLM fence specifications will be included as part of the conditions of approval.

30. Damage to existing roads as a result of the Proposed Action will be repaired to a condition that is similar to the original state or better than what existed prior to the commencement of construction. If dust becomes an issue along the Proposed Action due to traffic, access routes may require watering or some form of dust abatement.

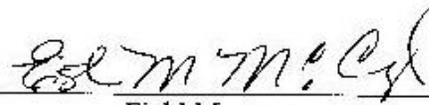
31. The holder is responsible for obtaining and following any applicable State and local permits. The holder is responsible for coordinating with the holders of any adjoining linear facilities.

**COMPLIANCE/MONITORING:** On-going compliance inspections and monitoring of construction activities will be conducted by White River Field Office staff during construction of the pipeline. Specific mitigation developed in the associated Environmental Assessment and the lease terms and conditions will be followed. The Operator will be notified of compliance related issues in writing, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

**NAME OF PREPARER:** Jeanne E. Newman

**NAME OF ENVIRONMENTAL COORDINATOR:** Heather S. Sauls

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

7/14/11

**ATTACHMENTS:**

Attachment A - Map

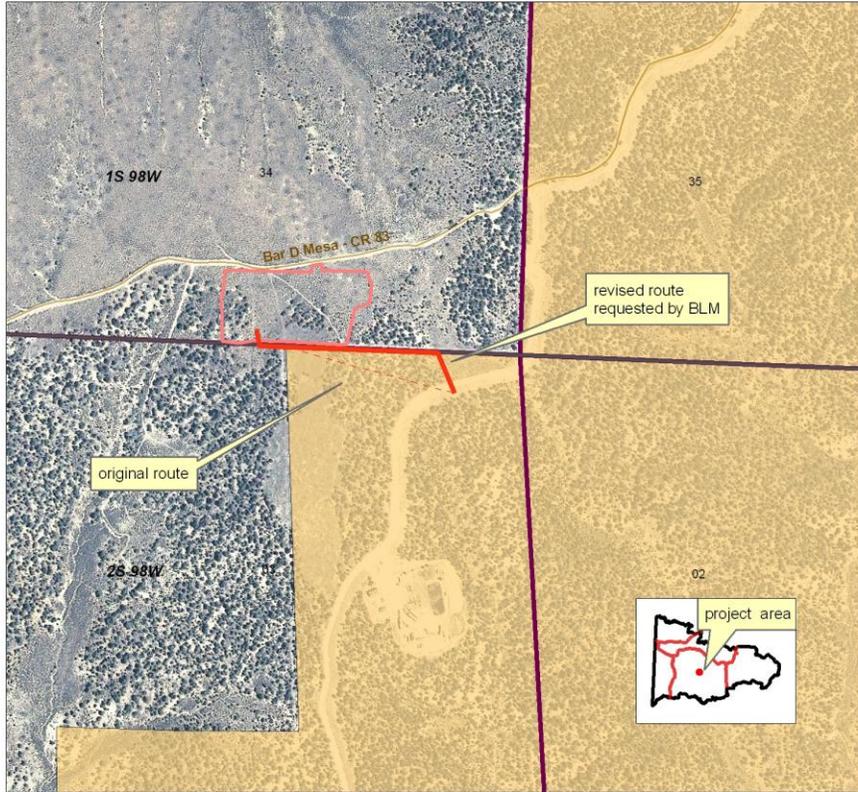
Attachment B – Terms and Stipulations



PUCKETT LAND CO - PIPELINE FOR 4D-34D WELL



EXHIBIT A - 2 ROUTES



Sixth Principal Meridian  
T.2S., R.98W.,  
sec. 3, lot 13.

Projects: line  
<all other values>

**LABEL**

- pipeline COC74876 (new proposal)
- - - pipeline COC74876 (original proposal)
- County
- State

Projects: polygon  
<all other values>

**LEASE\_NUM**

- CO-110-2010-0228-EA
- PLSS\_Townships\_GCDB2008
- PLSS\_Sections\_GCDB2008
- BLM
- CDW
- County
- FOR
- NPS
- PRI
- STA

0 150 300 600 900 1,200 Feet

5/2011 LLJ

### **TERMS AND STIPULATIONS:**

1. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer.
2. In order to protect rangeland health standards for soils, erosion features such as rilling, gullyng, piping and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. 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 when necessary.
4. During pipeline construction, the ROW will remain undisturbed to the maximum extent possible. That is, only the minimum necessary disturbance will occur to make 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.
5. Under no circumstances will topsoil, soil material below or adjacent to the trench spoils or subsoil excavated from the trench down to the ERD (Effective Rooting Depth) 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.
6. 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 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.
7. If, after initial construction activities are completed and if soil productivity is diminished from its pre-disturbance condition, then reseedng, hydro-mulching or other efforts will be initiated to re-establish soil productivity during reclamation activities.
8. After pipeline construction activities are completed Puckett Land Company 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.
9. After pipeline-construction activities are completed, the Puckett Land Company will be responsible for taking measures to prevent off-road vehicle use along the pipeline ROW until reclamation has been fully successful or as directed by the AO.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

15. 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.

16. 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/operator's expense. Such action will not relieve the holder of any liability or responsibility.

17. 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.

18. Promptly revegetate all disturbed areas not necessary for production with Native Seed Mix #2 listed below. Woody debris should not be scattered at the site until **after** seeding operations are completed and would not exceed 20 percent total ground cover. Seed mixture rates are Pure Live Seed (PLS) pounds per acre. Drill seeding is the preferred method of application. If drill seeding cannot be accomplished, seed should be broadcast at double the rate used for drill seeding.

Table 4

| Cultivar | Species              | Scientific Name                             | Application Rate (lbs PLS/acre) |
|----------|----------------------|---|---------------------------------|
| Arriba   | Western Wheatgrass   | <i>Pascopyrum smithii</i>                   | 4                               |
| Rimrock  | Indian Ricegrass     | <i>Achnatherum hymenoides</i>               | 3.5                             |
| Whitmar  | Bluebunch Wheatgrass | <i>Pseudoroegneria spicata ssp. inermis</i> | 4                               |
| Lodorm   | Green Needlegrass    | <i>Nassella viridula</i>                    | 2.5                             |
| Timp     | Northern Sweetvetch  | <i>Hedysarum boreale</i>                    | 3                               |
|          | Sulphur Flower       | <i>Eriogonum umbellatum</i>                 | 1.5                             |

19. Use seed that is certified and free of noxious weeds. All seed tags will be submitted to the *designated Natural Resource Specialist* via Sundry Notice (SN) within 14 calendar days from the time the seeding activities have ended. The sundry will include the purpose of the seeding activity (i.e., seeding reclaimed pipeline disturbance, etc.). In addition, the SN will include the case file number for the right of way associated with the seeding activity, if applicable, the name of the contractor that performed the work, his or her phone number, the method used to apply the seed (e.g., broadcast, hydro-seeded, drilled), an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.

20. Refer to the White River Field Office Reclamation Protocol document for more specific recommendations for soil handling and reclamation of this pipeline.

21. Survey the project area for the presence of noxious/invasive species before and after construction. If undesirable species are found, they should be promptly treated using approved materials and methods. If invasive, non-native species establish within the project area, and spread onto adjoining BLM lands, the applicant will be responsible for control of those populations as well.

22. All earthwork (vegetation removal) associated with development of the proposed location, pipeline, and new access road will take place outside of the migratory bird nesting season (May 15 – July 15).

23. The operator 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 operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

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

24. If the operator 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 operator 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 operator will then be allowed to resume construction.

25. If it becomes necessary to excavate into the underlying sedimentary rock to bury the pipeline an approved paleontological monitor shall be present before such excavations begin and throughout the excavation process.

26. In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. Trees should first be used in reclamation efforts and then any excess material made available for firewood or other uses.

27. Woody materials required for reclamation shall be removed in whole with limbs intact and 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 woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20% ground cover. Limbed material shall be scattered across reclaimed areas in a manner that avoids the development of a mulch layer that suppresses growth or reproduction of desirable vegetation. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.

28. Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. These trees 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.

29. If livestock use in the project area is at a level that would reduce reclamation success, install temporary fencing around those portions of the project that would benefit from grazing deferment for two to three growing seasons until seeded species are well established and can better tolerate grazing pressure. Install fencing in a manner that will not trap livestock or impede their movement through the general area. Temporary fencing must also be maintained and removed by the project proponent when reclamation is satisfactory. Brace fences prior to cutting and construct temporary fencing to maintain its functional purpose. After construction is

complete, reconstruct any damaged fence according to BLM fencing specifications attached. Any range improvement projects (e.g., fences, gates, waterlines, water tanks, etc.) that are damaged during construction of this project must be reported to the BLM and livestock grazing permittees; and repaired and returned to a satisfactory functional condition. A copy of the applicable BLM fence specifications will be included as part of the conditions of approval.

30. Damage to existing roads as a result of the Proposed Action will be repaired to a condition that is similar to the original state or better than what existed prior to the commencement of construction. If dust becomes an issue along the Proposed Action due to traffic, access routes may require watering or some form of dust abatement.

31. The holder is responsible for obtaining and following any applicable State and local permits. The holder is responsible for coordinating with the holders of any adjoining linear facilities.