

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-110-2011-0028-EA

**CASEFILE/PROJECT NUMBER:** COC74729 (water line)  
COC74728 (natural gas pipelines and boosting station)  
COC74728-01 (temporary use permit)

**PROJECT NAME:** Buckhorn Draw Unit Gathering System

**LEGAL DESCRIPTION:** Sixth Principal Meridian, Colorado  
T. 1 S., R. 98 W.,  
sec. 19, lots 2 and 3, E $\frac{1}{2}$ SW $\frac{1}{4}$ , and SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
sec. 29, SW $\frac{1}{4}$ NW $\frac{1}{4}$  and S $\frac{1}{2}$ SW $\frac{1}{4}$ ;  
sec. 30, N $\frac{1}{2}$ NE $\frac{1}{4}$  and SE $\frac{1}{4}$ NE $\frac{1}{4}$ .  
  
T. 2 S., R. 98 W.,  
sec. 6, lots 2, 3, and 5, and SE $\frac{1}{4}$ NW $\frac{1}{4}$ .  
  
T. 1 S., R. 99 W.,  
sec. 11, lots 10 and 11;  
sec. 13, W $\frac{1}{2}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , and SW $\frac{1}{4}$ SE $\frac{1}{4}$ ;  
sec. 14, NE $\frac{1}{4}$ NE $\frac{1}{4}$ ;  
sec. 24, N $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ , and NE $\frac{1}{4}$ SE $\frac{1}{4}$ .

**APPLICANT:** Mesa Energy Partners, LLC

**ISSUES AND CONCERNS:** None.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

***Background/Introduction:*** CO-110-2007-195-EA analyzed Bargath's Ryan Gulch to Barcus Creek Pipeline, CO-110-2009-105-EA analyzed Bargath's Ryan Gulch Pitcher's Mound Project, CO-110-2005-160-EA analyzed Williams' 24-29 well pad, and CO-110-2005-172-EA analyzed Bargath's Pipeline Hook-ups for Williams' wells.

**Proposed Action:** Mesa Energy Partners, LLC (hereafter Mesa) proposes to install a gas gathering and boosting station (Stake Springs compressor station) to serve the eastern portion of the Buckhorn Draw Federal Unit (see Exhibit A). A summary of the rights-of-way are listed below. Since the water line will be placed in the same trench as the natural gas pipeline, the total temporary surface disturbance associated with the project will be approximately 45 acres while the permanent right-of-way will be approximately 24 acres.

Case File Number	Description	Acres
COC74729	Water line	<i>12.5 (within natural gas pipeline disturbance)</i>
COC74728	Natural gas pipeline and boosting station	24.4
COC74728-01	Temporary use permit	20.9

Boosting Station

The boosting station would be located alongside the pipelines in Section 29, T1S, R98W. Initially, the boosting station would include an amine processing unit (APU), dehydration unit, and a compressor engine. As production in the Buckhorn Draw Unit increases, Mesa would add a second train with an additional APU, dehydration unit, and compressor. A 12 foot by 40 foot skid mounted facility to be used as a part time office for operation of the boosting station would also be located on the site. Access would be from an existing Williams well pad access road. Mesa requests a three acre parcel for this facility plus an additional half acre for storm water management.

Gas Gathering System

The gas gathering system would utilize new buried welded steel trunk lines with diameters ranging from 6-inch to 8-inch. In addition to the gas gathering system, a parallel produced water gathering system using 4-inch poly pipe would be installed in the same trench. The total length of the pipeline right-of-way (ROW) would be approximately 47,000 feet, of which 36,400 feet is located on Federal lands. Mesa requests a 50 feet construction and a 25 feet permanent right-of-way.

The northern extent of the proposed gathering system would be located in Section 11, T1S, R99W. The 8-inch trunk line and a 4-inch water line would flow to the south roughly parallel to County Road (CR) 24X through to the intersection of CR 24 and CR 91 where a boosting station would be installed. From there, the compressed gas would flow southwest through a buried 8-inch welded steel discharge line to a tap on the existing interstate pipeline located in Section 6, T2S, R 99W. A 6-inch gathering line would run from the southernmost point of the pipeline north alongside the 4-inch and 8-inch lines to the boosting station. Pipelines would be installed with a minimum of 36-inch cover. Approximately 2,000 feet of nominal 6 inch buried steel gathering pipe and approximately 25,000 feet of 8-inch buried steel gathering pipe would be installed. Approximately 12,000 feet of 8-inch compressor discharge buried steel pipe would be installed. Only natural gas and water would be transported in these lines.

The pipeline would be installed by blading and trenching the surface. The trench width would be 24". The pipeline would be buried in the trench with a minimum cover of 36". The trench would be backfilled, compacted, and reclaimed to reduce erosion. The surface would then be restored using the trenched soil. For topsoil and subsoil segregation, please refer to Buckhorn Draw Master Stormwater Management Plan, which is on file at the operator's field office and is available for review and inspection upon request. Upon completion of backfilling, leveling and re-contouring, the stockpiled topsoil would be evenly spread over the reclaimed area(s). Segregation of topsoil material and replacement of topsoil in its respective position (last out, first in) method would assist in the re-establishment of soil health and productivity. Topsoil would also be placed on its respective slopes (i.e., oakbrush shrub soil and pinyon juniper woodland soil would not be mixed). Prior to reseeding, all disturbed surfaces would be scarified and left with a rough surface. All disturbed surfaces would be re-seeded according to the Bureau of Land Management recommendation for seed mixture of Native Seed Mix #3.

All trees on the locations, access road, and proposed pipeline routes would be purchased prior to construction from the Bureau of Land Management, White River Field Office, and disposed of by one of the following methods:

- Trees shall be cut with a maximum stump height of six inches (6") and cut to 4-foot lengths and stacked off location. Trees will not be dozed off the location or access road, except on private surface where trees may be dozed. Trees may also be dozed on pipeline routes and then pulled back onto right-of-way as part of final reclamation.
- Limbs may be scattered off location, access road or along the pipeline, but not dozed off. Mesa requests the use of site slash (site vegetation trees, shrubs, forbs & grasses) in preconstruction BMP's and permanent stormwater BMP's as sediment control within our limits of disturbance on access roads, pipelines and facility construction.

#### Construction Timeframe, Crew Size and Equipment, and Permits

The estimated time to construct this pipeline would be twelve weeks and the start time would be the spring of 2011. Access would be by existing roads and trails. Work force would include: one crew of approximately 20 persons, 10+ small trucks for crews, three or more welding crews, one or more semi-trucks for hauling equipment and pipe, D-8 Cat and a D-4 trackhoe with side boom (or comparable), one trencher and/or two to three track backhoes, motograder (for clearing the surface), and rubber-tired hoe (for the digging and backfilling of ditches at road crossings).

Rio Blanco County would be consulted with in regard to the proposed project, and the appropriate county permits would be acquired as needed. In addition, the necessary air permits to operate the subject facility would be obtained from the Colorado Oil & Gas Conservation Commission (COGCC) as well as the Colorado Department of Health & Environment (CDPHE) Air Pollution Control Division prior to constructing/operating the subject facility.

All operation and maintenance activities would be restricted to the ROW as granted. Inspection would be conducted by using existing access roads and trails.

**No Action Alternative:** Under the no action alternative, the application would be denied, and the pipeline and boosting station would not be built.

**ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:** Originally, Mesa proposed to place a 400 square foot office trailer and temporary living quarter trailer to accommodate personnel during drilling/completion operations in the Buckhorn Draw Unit within the boosting station site. Future plans for the boosting station would include a produced water recycling facility and an equipment staging area. This proposal was amended and the boosting station site was modified from seven acres to approximately three acres of disturbance. No impacts were analyzed for this and any future proposal would be analyzed in a separate NEPA document.

**PURPOSE & NEED FOR THE ACTION:** The purpose of the proposed action is to manage multiple uses on Public Lands in a manner that avoids, minimizes, reduces, or mitigates potential impacts to other resource values.

The purpose of the action is to provide the opportunity to construct a natural gas pipeline, water line, and boosting station on BLM surface. The need for the action is established under the authority of Federal Land Policy and Management Act of 1976 (FLPMA) to respond to the request for a right-of-way across BLM surface.

**Decision to be Made:** The BLM will decide whether or not to authorize the pipeline right-of-way and if so, 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:** 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 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:

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

### **AIR QUALITY**

*Affected Environment:* This Proposed Action is located in rural northwest Colorado in the White River Basin, more than 10 miles from any special designation airsheds or non-attainment areas (CDPHE 2009). 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 prevention of significant deterioration (PSD) Class I area located closest to the project area is the Flat Tops Wilderness Area, which is approximately 40 miles to the east. Dinosaur National Monument, which is located approximately 40 miles to the northwest of the project area, is listed as a Federal Class II area, but is regulated as a Class I area for SO<sub>2</sub> by the CDPHE.

Industrial facilities in White River basin include coal mines, soda ash mines, natural gas processing plants, and power plants. Due to these industrial uses, increased local population, and oil and gas development, emissions of air pollutants in the White River basin and nearby Uinta basin are likely to increase into the future. Despite increases in emissions, overall air quality conditions in the White River basin are in attainment of air quality standards due to effective emission controls and strong atmospheric dispersion conditions. Because the historic air quality in the White River basin has been good, small changes in air quality may have noticeable localized effects, especially on visibility.

Although specific air quality monitoring data are not available for the project location, BLM recently established two air quality monitoring sites, one in Rangely and one in Meeker, which measure ozone, dust, and nitrogen oxides. The cities of Grand Junction (southwest), Steamboat Springs (northeast), and Parachute (south) all host air quality-monitoring stations. It should be noted that not all criteria pollutants have been monitored at each monitoring site described above, the BLM monitoring sites only have a year of data, and the atmospheric proximity to emissions and climate conditions at any of these monitoring sites are likely to be different from the project location. Available monitoring data at these stations indicate that the area is likely to be in the attainment category, meaning that the ambient concentrations of criteria pollutants are less than the applicable air quality standards. The national ambient air quality standards (NAAQS) and the Colorado ambient air quality standards (CAAQS) are the health-based criteria for the maximum acceptable concentrations of air pollutants. Criteria pollutants for which CAAQS and NAAQS exist include carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter less than 10 microns in effective diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in effective diameter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb).

The Colorado Air Pollution Control Division estimates that maximum levels (24-hour average) for particles 10 µm or less in diameter (PM<sub>10</sub>) in rural portions of western Colorado like the

Piceance Basin are near 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). This estimate is below the 150  $\mu\text{g}/\text{m}^3$  NAAQS for  $\text{PM}_{10}$  (24-hour average).

*Environmental Consequences of the Proposed Action:* Construction of the proposed facilities and installation of the pipeline would result in impacts to air quality during construction and during operation. Increases in the following criteria pollutants would occur during construction and operation due to combustion of fossil fuels during construction activities: carbon monoxide, ozone (secondary pollutant), nitrogen dioxide, and sulfur dioxide. Non-criteria pollutants such as nitric oxide, air toxics (e.g. benzene), and total suspended particulates (TSP) may also experience slight, temporary increases as a result of the proposed action (NAAQS have not been set for non-criteria pollutants). Even with an increase in these pollutants, the project would be unlikely to result in an exceedance of NAAQS and CAAQS and would likely be under PSD thresholds.

Soil disturbance resulting from construction is expected to cause increases in fugitive dust and inhalable particulate matter emissions in the project area and immediate vicinity. During construction dust production is likely, especially when conditions are dry and/or windy. As vegetation establishes in reclaimed areas, the only dust production from the project would occur when vehicles travel on the access roads to service the site. The increase in airborne particulate matter from this project and the other wells previously approved is not expected to exceed CAAQS or NAAQS for particles below  $\text{PM}_{2.5}$  or  $\text{PM}_{10}$  on an hourly or daily basis. During operation of the booster site in Stake Springs Draw, emissions from the gas processing facilities would result in emissions of pollutants from the combustion of fossil fuels and the release of some uncombusted hydrocarbons within the limits of CDPHE permits for the site.

Even with increased pollutants from the Proposed Action, this project is unlikely to result in an exceedance of NAAQ and CAAQ standards and other significant impact thresholds.

*Environmental Consequences of the No Action Alternative:* No impacts to air quality would result from the No Action Alternative.

*Mitigation:* None.

## **SOILS**

*Affected Environment:* The classification of the soils that would be disturbed by the project are shown in the table below. The proposed pipeline would not cross any areas identified as no surface occupancy (NSO) for landslide areas. There are no fragile soils as defined by BLM, which means they have shallow soils or high erosion potential and also have slopes greater than 35 percent. These areas are managed with a controlled surface use (CSU) stipulation that requires special consideration of engineering and reclamation plans in these areas.

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

<b>Soil Classification</b>	<b>Range Site Description</b>	<b>Potentially Impacted Acres</b>
Glendive fine sandy loam	Foothills swale	6
Rentsac channery loam, 5-50% slopes	PJ Woodlands	39
Rentsac-Piceance complex, 2-30% slopes	PJ woodland/Rolling Loam	41
Piceance fine sandy loam, 5-15% slopes	Rolling Loam	7
Yamac Loam, 2-15% slope	Rolling Loam	9
Torriorthents-RockOutcrop, complex, 15-90% slopes	Stoney Foothills	7
Glendive fine sandy loam	Foothills swale	52

*Environmental Consequences of the Proposed Action:* Installing the pipeline and building the booster site will disturb soils. Soils will be disturbed from 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 stormwater, 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, loss of topsoil productivity, susceptibility to wind and water erosion, and the loss of topsoil productivity. These direct impacts could result in increased indirect impacts such as runoff and erosion. If BMPs for stormwater and reclamation are successful, impacts from this project will be minor and localized to disturbed areas. Potential soil impacts, such as erosion associated with pipeline construction activities, would be temporary and are expected to be short-term lasting up to five years.

There is no description of soil handling procedures during installation of the pipeline. If shallow subsoils that are used to reestablish vegetation are not segregated from deeper soils, it could lead to a portion of this soil horizon necessary for vegetation establishment or the effective rooting depth (ERD) being used to pad the pipeline. If the ERD is used to pad the pipeline, these subsoils would be “mined” of the fine particles that are needed for pipeline padding leaving the coarser material to fill the trench above the pipeline and it is likely that the rock content of these subsoils could be substantially increased from pre-disturbance conditions in some locations. The ERD is important for vegetation development and depending on the rock content can make spreading the topsoil difficult and/or ineffective.

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 if activities are otherwise approved by the Authorized Officer (AO).
2. In order to protect public land health standards for soils, erosion features such as riling, gullying, 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 Reality Specialist and submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. Topsoil will be removed to a depth of 6-8 inches. Topsoil piles will be covered, seeded, labeled, and stored unmixed with other soils for spreading during reclamation.
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 before topsoil is respread. 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 reseedling, hydro-mulching or other efforts will be initiated to re-establish soil productivity during reclamation activities.
8. After pipeline construction activities are completed Mesa Energy 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.

*Environmental Consequences of the No Action Alternative:* Regulated material, solid and sanitary wastes would not be generated or transported, posing no potential of risk of harm to human health or the environment as a result of accidents or mechanical breakdowns of machinery.

### *Mitigation:*

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. 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.
3. 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 percent 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.
4. 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.
5. 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.
6. 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.

7. 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.
  
8. 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: This project is in Coral Gulch and Stake Springs Draw that drain into Yellow Creek. The following water segment may be impacted by this project:

**Water Quality Classification Table\***

Segment	Segment Name	Use Protected	Protected Beneficial Uses		
			Aquatic Life	Recreation	Agriculture
13b	All tributaries to the Yellow Creek.	No	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, 2011

This segment is 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 temperatures frequently exceed 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 also have standards that are protective from non-contact recreation and agriculture.

The gas gathering and boosting station that would be built in the valley bottom along Stake Springs Draw was evaluated for potential flood flows at a 10, 25, and 50 year storm event (Olsson and Associates, 2011). United States Geological Survey (USGS) streamflow data available to the mainstem of Corral Gulch (three miles to the west of the proposed site) has 21 years of flow records. Peak discharges were estimated using measured flows from this site with a regression equation that takes into account differences in the areas.

Stream Gage	Area (square miles)	Q 10 (cfs)	Q 25 (cfs)	Q 50 (cfs)
Corral Gulch	31.6	383	883	1,510
State Springs Draw	30.3	373	860	1,470

The U.S. Army Corps of Engineers hydrologic engineering center river analysis system (HEC-RAS) was used to analyze the channel adjacent to the gas gathering and boosting station to determine the likely floodplain during these peak events. The grade of the site will be changed to reduce the likely flood flows into this site. Additionally heavy duty erosion fabric will be installed along the fill slope and it will be vegetated to stabilize the slope.

Groundwater: Precipitation in this area generally moves from areas of recharge to surface waters via alluvial aquifers and on the surface during spring melt and rain storms. A portion of annual precipitation infiltrates to deeper bedrock aquifers that contribute to contact springs. Springs and ground water inputs generally occur in both bedrock and alluvial aquifers along valley bottoms. Many of the drainages have interrupted flow characteristics (i.e., some reaches are ephemeral with water moving in the alluvium and other reaches there is surface expression) as a result of groundwater recharge characteristics.

*Environmental Consequences of the Proposed Action:* Surface Waters: 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.

Runoff associated with storm events may increase sediment/salt loads in surface waters down gradient of disturbed areas. Sediment can be deposited and stored in minor drainages where it could be moved into Yellow Creek during heavy convection storms. Surface erosion for this project is most likely during the construction and would be controlled using BMPs for stormwater. Since the tributaries to the Yellow Creek, including Corral Gulch are ephemeral or intermittent, no impacts that would cause an exceedance in water quality standards are expected in segment 13b or for the mainstem of Yellow Creek.

The design and analysis were reviewed by a Colorado registered professional engineer and signed on 3/21/2011. The analysis indicates that there is a danger of destabilizing fill slopes during a 50-year flood event if it occurs before vegetation is reestablished (Olsson and Associates 2011). If this were to occur, the site would be regraded after the event and the fillslopes rearmored. However, erosion from the site would likely occur and sediment would likely be transported to the county road to the west of the site. The northwest corner of the

booster station pad inundates the channel the most and would raise flood flows about one foot with about two feet of the fill slope being inundated. The slope of the pad will be to the west to drain water from the pad and protect infrastructure.

Groundwaters: Groundwater quality could be impacted as a result of spills of fuel, lubricants, and solvents if allowed to infiltrate. Mesa Energy has a Stormwater Management Plan (SMP) which provides measures to minimize leaks and spills and to ensure that any inadvertent spill is quickly and adequately contained and cleaned up to minimize groundwater contamination. Control and mitigation measures would ensure impacts to groundwater are minimal.

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

*Mitigation:* The following should be added as COAs:

1. Keep road inlet and outlet ditches, catchbasins, and culverts free of obstructions, particularly before and during spring run-off. Routine machine-cleaning of ditches should be kept to a minimum during wet weather. Leave the disturbed area in a condition that provides drainage with no additional maintenance.
2. Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Install culverts with adequate armoring of inlet and outlet. Patrol areas susceptible to road or watershed damage during periods of high runoff.
3. Culverts and waterbars should be installed according to BLM Manual 9113 standards and sized for the 10-year storm event with no static head and to pass a 25-year event without failing.

*Finding on the Public Land Health Standard for water quality:* It is unlikely that the pad construction, improvement of access roads, or pipeline installation would result in an exceedence of state water quality standards.

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

*Affected Environment:* The proposed pipeline corridor lies adjacent to an existing, well-maintained roadway and follows an existing pipeline corridor. At its nearest point, the pipeline corridor passes within 98 feet of the Stake Springs channel, the nearest system supporting limited, patchy riparian vegetation. This system is classified as intermittent (flowing water only part of the year) and is in a functional-at-risk state.

*Environmental Consequences of the Proposed Action:* The proposed action is not expected to have any direct influence on the Stake Springs channel or its associated riparian resources. 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 this system 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 (low density) is within 98 feet (at the nearest point) from the corridor route. This system is currently not considered to be meeting the land health standards. With the application of BMPs there is little likelihood that the proposed action alternative would have any reasonable potential to influence the function or condition of the Stake Springs system or its riparian values.

## **VEGETATION** (includes a finding on Standard 3)

*Affected Environment:* The northern portion of the proposed pipeline (approximately five miles) from Duck Creek to Corral Gulch primarily crosses rolling loam and pinyon/juniper woodland ecological sites. Vegetation in this area is dominated by Wyoming big sagebrush with interspersed stands of mixed age pinyon/juniper woodlands. The understory of these sites is primarily perennial grass species including western wheatgrass, bluebunch wheatgrass, and prairie junegrass. The proposed boosting station and southern portion of the pipeline (approximately two miles) in Stake Springs Draw are located within a foothill swale ecological site. Vegetation within this area is dominated by basin big sagebrush with an understory of perennial grasses including basin wild rye and western wheatgrass. The proposed pipeline will follow existing buried pipelines which have previously disturbed vegetation. Through reclamation these areas have been converted to grass/forb communities.

*Environmental Consequences of the Proposed Action:* Initially, implementation of the proposed action will result in approximately 45 acres of disturbance including the pipeline and boosting station. Impacts to vegetation resources include short-term loss of vegetation cover, modification of vegetation structure, and species composition. Indirect impacts include the increased potential for non-native/noxious species introduction and establishment within disturbed areas. Following successful pipeline reclamation of all disturbed areas, it is expected there will be a slight increase in herbaceous vegetation, and a diverse self sustaining vegetation community will be established. If no interim reclamation occurs within the proposed area for the boosting area, this would result in approximately three acres of long term vegetation disturbance.

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

*Mitigation:* Promptly revegetate all disturbed areas associated with the northern portion of the proposed pipeline running between Duck Creek and Corral Gulch with Native Seed Mix #3 from the White River ROD/RMP (listed below). All disturbed areas associated with the southern portion of the proposed pipeline, and boosting station should be seeded with Native Seed Mix #5 from the White River ROD/RMP (also listed below). Seeding rates in the White

River ROD/RMP are shown as pounds of Pure Live Seed (PLS) per acre and apply to drill seeding. For broadcast application, double the seeding rate and then harrow to insure seed coverage. Applied seed must be certified and free of noxious weeds, and seed certification tags must be submitted to the Authorized Officer. Woody debris will not be scattered on the pipeline until after seeding operations are completed.

<b>White River Field Office Native Seed Mix #3</b>	
<b>Species</b>	<b>Seeding Rate Pure Live Seed (PLS)</b>
Western wheatgrass (Rosanna)	2 lb/ac. PLS
Indian ricegrass (Nezpar)	2 lb/ac. PLS
Bluebunch wheatgrass (Whitmar)	2 lb/ac. PLS
Thickspike wheatgrass (Critana)	1 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Utah Sweetvetch	1lb/ac. PLS
Alternates: Needle and Thread Grass and Globemallow	

<b>White River Field Office Native Seed Mix #5</b>	
<b>Species</b>	<b>Seeding Rate Pure Live Seed (PLS)</b>
Basin wildrye (Magnar)	2 lb/ac. PLS
Western wheatgrass (Rossana)	3 lb/ac. PLS
Bluebunch wheatgrass (Whitmar)	1 lb/ac. PLS
Thickspike wheatgrass (Critana)	2 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Alternates: Utah sweet vetch and Globemallow	

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Vegetation in the project area currently meets the standard on a watershed basis and is expected to continue to meet the standard in the future following implementation of the proposed action.

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

*Affected Environment:* The only noxious weed known to occur directly in the project area is cheatgrass. Cheatgrass is an annual, invasive/noxious weed species that is present along roads and in areas of unvegetated earthen disturbance. Other noxious weeds such as houndstongue (*Cynoglossum officinale*), Russian knapweed (*Acroptilon repens*), spotted knapweed (*Centaurea maculosa*), common mullein (*Verbascum thapsus*), Canada thistle (*Cirsium arvense*), and bull thistle (*Cirsium vulgare*) are present in the vicinity of the proposed action.

*Environmental Consequences of the Proposed Action:* Implementation of the proposed action will create approximately 45 acres of new earthen disturbance. The new earthen disturbance will provide safe-sites for the establishment and proliferation of noxious weeds. There is also the risk of other noxious weed species being transported on the site by construction and/or support equipment.

Prompt reclamation with successful establishment would aid in the prevention of noxious weeds establishing on disturbed sites. If noxious weeds are detected on the site, prompt spot control would prevent invasion of the site and movement to adjacent plant communities.

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

*Mitigation:* The area should be surveyed for the presence of noxious/invasive species before and after construction. If undesirable species are found, they shall be promptly eradicated using materials and methods approved in advance by the BLM authorized officer. 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.

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

*Affected Environment:* The proposed pipeline in Section 11 of T1S R99W is located within approximately 2,165 feet of the Duck Creek Area of Critical Environmental Concern (ACEC) and at the closest point, approximately 1,640 feet east of potential habitat for special status plant species. The Duck Creek ACEC is known to provide habitat for *Physaria congesta*, a federally listed threatened species under the Endangered Species Act. *Physaria congesta* is most often found on white shale hilltops associated with the Thirteen Mile Creek Tongue of the Green River Formation.

*Environmental Consequences of the Proposed Action:* As the nearest known occupied special status plant species habitat is located approximately 5,577 feet from the proposed pipeline and potential habitat for special status plant species is located approximately 1,640 feet from the proposed pipeline, the proposed action is not expected to affect special status plant species or associated habitats.

*Environmental Consequences of the No Action Alternative:* The no action alternative is not expected to affect special status plant species or associated habitats.

*Mitigation:* None.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The proposed and no action alternatives are not expected to affect populations or habitats of plants associated with the Endangered Species Act or BLM-sensitive species and, as such, should have no influence on the status of applicable land health standards.

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

*Affected Environment:* There are no animals listed, proposed, or candidate to the Endangered Species Act that are known to inhabit or derive important use from the project area.

Pinyon/juniper located on the adjacent slopes hold extremely low potential as habitat for northern goshawk (a BLM sensitive species) due to the open character of the woodlands and lack of mature trees. The nearest known goshawk nest (active in 2010) is nearly 10 miles from the project area. Brewer's sparrow, a BLM sensitive species and one recognized by the US Fish and Wildlife Service as a species of conservation concern, are common throughout the sagebrush communities that encompass the project area. Results from surveys conducted along the northern half of the project route during the 2010 breeding season showed Brewer's sparrow to be one of the most frequently encountered species in sagebrush habitats.

*Environmental Consequences of the Proposed Action:* See discussion on Brewer's sparrow in migratory bird section below.

*Environmental Consequences of the No Action Alternative:* There would be no direct or indirect influence on special status species under the no action alternative.

*Mitigation:* See mitigation in Migratory Birds section.

*Finding on the Public Land Health Standard for Threatened & Endangered species:* The area potentially influenced by the proposed and no action alternatives does not currently support habitats associated with listed animal species; therefore, neither alternative would influence the applicable rangeland health standards. The project area currently meets applicable land health standards for sensitive animal species at the landscape scale. Neither the proposed nor the no action alternative would detract from the continued meeting of these standards.

## **MIGRATORY BIRDS**

*Affected Environment:* The proposed pipeline corridor lies adjacent to Rio Blanco County roads 24, 24X, and 91. These are well traveled/maintained roadways. A small stretch of the pipeline corridor (~ two miles) follows an unnumbered BLM road. The project area is largely encompassed by Wyoming big sagebrush communities with an herbaceous understory heavily dominated by Kentucky bluegrass and cheatgrass. Open canopied pinyon/juniper woodlands are the dominant vegetation type on the adjacent slopes (~984 feet from pipeline corridor on northern portion and within 131 – 230 feet from southern portion). The surrounding communities provide suitable nesting habitat for many species of migratory birds during the breeding season (typically May 15 – July 15) including but not limited to: Bewick's wren, black-throated gray warbler, dusky flycatcher, gray flycatcher, blue-gray gnatcatcher, green-tailed towhee, and Vesper's sparrow. 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:* The proposed action would result in the loss of 45 acres of predominately Wyoming big sagebrush habitat. Under natural succession regimes, these communities would take anywhere from 20-30 years to return to preconstruction conditions following reclamation. Timely and effective (non-annual dominated) pipeline reclamation would provide an important forage and cover resource to most migratory

birds, but would likely provide the greatest benefit to grassland/ground nesting species in the short term.

As proposed, construction is scheduled to begin in late March or early April and would likely extend into the early portions of the migratory bird nesting season. Under this scenario, there would be a low chance of disrupting nesting activities, as much of the pipeline would have been installed prior to the core nesting season. Furthermore, because the pipeline corridor lies adjacent to a well-maintained and well-traveled roadway, it is likely that nest densities are reduced to a certain extent in those habitats immediately adjacent to the roadway (due to disruption by vehicle traffic). Overall nest disruption (associated with the proposed action) to local bird populations is expected to be minimal.

The northern portion of the pipeline (from boosting station north) runs along a BLM-established migratory bird breeding survey route. Surveys are conducted through visual, but predominately aural observations. Noise associated with construction activities would make it extremely difficult for surveyors to detect the presence of bird species in the immediate vicinity. In addition, construction activities would likely deter birds from nesting in suitable adjacent habitats which would bias data collected for the 2011 breeding season. Discussions between Mesa representatives and BLM biologist took place, and it was agreed that Mesa would be able to comply with BLM's request to have construction activities completed along this portion of the route by mid-May. Mesa will contact BLM biologists immediately if construction plans change.

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

*Mitigation:* Pipeline construction from the boosting station north will be completed prior to May 15 to avoid conflict with BLM migratory bird breeding survey. Mesa will contact BLM biologists immediately if construction plans change.

### **WILDLIFE, AQUATIC** (includes a finding on Standard 3)

*Affected Environment:* There are no systems in the vicinity of the project area that support higher-order aquatic vertebrate populations. The lower reaches of Yellow Creek (below Barcus Creek), which support the nearest known fisheries population, is located 15 miles downstream from the project area.

*Environmental Consequences of the Proposed Action:* Construction of the proposed pipeline would have no direct or indirect impact on aquatic resources. With the application of BMPs associated with soil erosion, there is no reasonable likelihood that fugitive sediments would have any influence on the function or condition of Yellow Creek, its aquatic wildlife, or associated habitats.

*Environmental Consequences of the No Action Alternative:* There would be no direct or indirect influence on downstream aquatic habitats under the no action alternative.

*Mitigation:* None.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Terrestrial): The nearest reach supporting aquatic wildlife is located 15 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 Yellow Creek or its aquatic habitat values.

### **WILDLIFE, TERRESTRIAL** (includes a finding on Standard 3)

*Affected Environment:* The majority of the proposed pipeline follows Rio Blanco County roads 24X, 24, and 91 with a two mile stretch lying adjacent to an unnumbered BLM road. These roads generally receive moderate vehicle use. The surrounding Wyoming big sagebrush and pinyon/juniper communities are categorized by the Colorado Division of Wildlife as mule deer general winter range. These areas typically receive heaviest use from October through January.

Pinyon/juniper located throughout the adjacent slopes hold limited potential for nesting woodland raptors due mainly to the lack of mature trees and open structure of the woodlands. There are two known nests (both active in 2010) in the vicinity of the project; a Cooper's hawk, roughly 984 feet from the pipeline, and a great-horned owl (private surface), approximately 705 feet from the pipeline corridor.

Small mammal populations are poorly documented. However, the 20 or so species that are likely to occur in this area are widely distributed and display broad ecological tolerance throughout the Great Basin or Rocky Mountain regions. Based on small mammal sampling conducted in the area in 2010, it is likely that the small mammal community associated with the project area is represented by relatively few generalized species, such as deer mouse and least chipmunk. No narrowly distributed or highly specialized species or sub-specific populations are known to occur in the project area.

*Environmental Consequences of the Proposed Action:* The proposed action would disturb roughly 45 acres of predominately sagebrush habitat located immediately adjacent to existing roadways. While local wildlife populations use the surrounding area, it is suspected that they do not make important use of those habitats directly impacted by the proposed action (alongside roadways). Noise and activity associated with pipeline installation would likely displace wildlife in the surrounding area during the construction period; however, once work has ceased wildlife would be expected to return to the area.

Animal aversions elicited by persistent noise generated by pumping equipment and on-site power supplies (associated with the boosting station) can be reduced to comparable levels by employing noise abatement measures on internal combustion engines and compressors. These measures would include, at a minimum, installation of hospital-grade mufflers and enclosure of such components in sound-insulated buildings.

Pipeline installation is not expected to have any substantial influence on nesting activities of woodland raptors. Activity is expected to take place prior to any earnest nesting attempts with most of the woodlands that likely support nesting birds 656 – 984 feet from the pipeline corridor.

*Environmental Consequences of the No Action Alternative:* There would be no direct or indirect influence on terrestrial wildlife or associated habitats under the no action alternative.

*Mitigation:* In the interest of reducing adverse influences (aversion to high noise levels) on the utility of adjacent big game winter ranges that support concentrations of mule deer and reproductive habitats of migratory birds, measures to reduce sound levels will be required on compressors and internal combustion engines associated with on-site power generation. These measures would include, at a minimum, installation of hospital-grade mufflers and enclosure of such components in sound-insulated buildings.

*Finding on the Public Land Health Standard for plant and animal communities* (partial, see also Vegetation and Wildlife, Aquatic): Overall, the project area meets the land health standards on a landscape scale. As conditioned by reclamation-related provisions, implementation of the proposed action would not interfere with continued landscape level maintenance of the land health standards.

## **WILD HORSES**

*Affected Environment:* The proposed action is located in the Piceance-East Douglas Herd Management Area (PEDHMA) which covers 190,130 acres of public and private lands. The WRFO manages this herd in a manner designed to ensure a healthy, viable breeding population.

The proposed action is located within Pasture C of the Square S Allotment and the Duck Creek/84 Mesa areas which are included in the PEDHMA. These areas are dominated by mixed-aged pinyon/juniper woodland with pockets of sagebrush and an open bench top (84 Mesa) dominated by forb/grass communities. The woodland provides cover for the wild horses while the sagebrush and forb/grass communities provide foraging habitat. Generally, year round wild horse use is made in these areas; however, during summer months several bands will migrate to the south or areas with higher elevations for vegetation as well as the ability to get away from insects such as gnats.

The appropriate management level (AML) is between 135-235 wild horses. To maintain the AML, the WRFO occasionally gathers wild horses and removes some from the range.

*Environmental Consequences of the Proposed Action:* The proposed project would impact approximately 45 acres of habitat within the Herd Management Area (HMA). The primary impact would be removal of existing vegetation and loss of forage and cover. The loss of 45 acres in the HMA would be minimal in relation to the entire herd area and would amount to the loss of vegetation available to grazing animals of approximately eight animal unit months (AUMs) of forage. Generally, the impacts to the vegetation would be expected to be long-term until complete reclamation of the project is achieved.

Construction activities associated with this project may cause short-term displacement of wild horses from the immediate area due to human activity, equipment operation, noise, and fugitive

dust; however, it is believed they will make an effort to avoid the area during construction and return when in the completion phase(s). Due to nearby county roads and other existing oil and gas activities, wild horses in the area are likely to be habituated to human activity to some degree. Implementation of the proposed action could result in direct and indirect impacts to wild horses. Wild horses that do not avoid development activities and cattle guards could increase the potential for injuries to wild horses (e.g., hooves and legs caught in or through either the cattle guard or brace assembly). There is also potential for wild horses to be become trapped should they fall into an open trench. Increased traffic on access roads in the area could also increase the potential for harassment of and vehicle collisions with wild horses. Further, increased traffic in the area could result in young foals becoming dislocated from their mares.

The two fences located in Section 29, T1S, R98W also serve as boundary fence lines for the PEDHMA. These two fences require that functionality be continual due to the fact that wild horses would be able to relocate outside the PEDHMA if these fences are left down or non-functional.

*Environmental Consequences of the No Action Alternative:* There would be no impacts to the PEDHMA or the wild horse herd with a no action alternative.

*Mitigation:*

1. Should the proposed action occur simultaneous with a wild horse gather, all project-related traffic would need to be coordinated with the BLM and the contractor for the gather.
2. Any range improvement projects such as fences or water developments that are damaged or destroyed as a result of implementation of the proposed action shall be promptly repaired or replaced to the degree of functionality prior to commencement of work associated with the proposed action.
3. To minimize the incidents of young foals becoming dislocated from their mare, crews would be required to slow or stop when wild horses are encountered, allowing the bands to move away at a pace slow enough so that the foal can keep pace and is not separated.
4. Place earthen trench plugs and/or ramps along the trench at well defined wild horse trails intersected by open trench. Regularly inspect open trench for trapped animals and if injured animals are found contact the BLM.
5. All installed cattle guards at fence crossings associated with access roads and/or pipeline will be upgraded to a horse proof cattle guard so that the risk of wild horses being trapped in any of the installed cattle guards is reduced.

## **CULTURAL RESOURCES**

*Affected Environment:* The proposed pipeline route is covered by all or parts of at least six Class III (100 percent pedestrian) inventories (Conner and Davenport 2005 Compliance

Dated 5/26/2005, 2007 Compliance Dated 7/18/2007, Conner 2005 Compliance Dated 6/17/2005. Conner et al. 2005 Compliance Dated 7/19/2005, Conner et al. 2009 Compliance Dated 2/4/2009). Grand River Institute typically inventories rights-of-way to one hundred feet either side of the flagged centerline. Assuming that the new proposed line stays within that 100 foot area, no new inventory will be required. Four sites have been located in the general vicinity of the project area. Two of the resources are isolated finds, one site is the historic 84 Ranch location which has been officially determined not eligible for nomination to or listing on the National Register of Historic Places (NRHP). The fourth site is identified as a large artifact scatter, possibly an open camp site, and officially determined to be potentially eligible for nomination to the NRHP.

*Environmental Consequences of the Proposed Action:* As proposed, the project has the potential to impact one potentially NRHP eligible resource (historic property). In looking at the internal GIS data, the proposed centerline of the project is approximately 82 feet from the mapped site boundary. The other three resources are officially not eligible, and there would be no impacts to historic properties in regards to these three resources.

*Environmental Consequences of the No Action Alternative:* There would be no new impacts to any known cultural resources under the no action alternative.

*Mitigation:*

1. 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 historic or archaeological sites, or for collecting artifacts. If historic or archaeological 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 authorized officer (AO). Within five working days the AO will inform the holder as to:

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

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you

must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. All construction activity between -108.427W, 39.937N, and -108.426W, 39.936N, (ca 730 feet) must be confined to the east side of all existing previous disturbance.
4. All construction activity must remain within 100 feet of the centerline of the existing pipeline this project proponent has proposed to parallel.

## **PALEONTOLOGY**

*Affected Environment:* The proposed action is located in an area generally mapped as the Uinta Formation (Tweto 1979) 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:* Should it become necessary, at any time, to excavate into the underlying rock formation to bury any of the proposed pipelines there is a potential to impact scientifically noteworthy fossil resources.

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

### *Mitigation:*

1. 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 authorized officer (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.

2. If it becomes necessary to excavate into the underlying rock formation to prepare the pipeline trench for the pipelines, a paleontological monitor shall be present before and during all such excavations.

**ELEMENTS NOT PRESENT OR NOT AFFECTED:**

No flood plains or prime and unique farmlands exist within the area affected by the proposed action. There are also no known 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.

Other Element	NA or Not Present	Applicable or Present, Not Brought Forward for Analysis	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 Critical Environmental Concern	X		
Wilderness	X		
Wild and Scenic Rivers	X		
Cadastral	X		
Socio-Economics	X		
Law Enforcement	X		

**VISUAL RESOURCES**

*Affected Environment:* The proposed action would traverse a Visual Resource Management (VRM) III classified area. The objective of the VRM III class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

*Environmental Consequences of the Proposed Action:* The proposed pipeline construction would require the removal of the vegetation which would create a contrast in line and color. The contrast will be greatest during construction activities due to the exposed dirt but will gradually reduce in contrast as reclamation efforts through recontouring and seeding establish a grass community that will begin to blend with the surrounding vegetation. Because of the close proximity of the proposed action to existing Rio Blanco County roads in the area, the proposed action would be visible to a casual observer traveling along these existing roads. Primary reasons for travel in the area are for energy development, ranching, hunting, and

firewood procurement. Traffic volumes are low except for a short period of time in the fall when big game hunting seasons are open. The proposed action would not dominate the view of the casual observer post reclamation. The facilities located at the gas gathering and boosting station will be visible to the casual observer due to its location (intersection of County Roads 24 and 91) will draw some attention as they would be new to the area. By painting all above ground features Juniper Green to either blend with surrounding vegetation or to mimic existing vegetation in the background, the level of change to the characteristic landscape would be moderate and the VRM III classification would be retained.

*Environmental Consequences of the No Action Alternative:* There would be no surface disturbing activities that would attract attention to the casual observer traveling in the area.

*Mitigation:* Paint and regularly maintain all above ground features (for example: valves, pigging stations, and pipe fence barriers) with Juniper Green (Standard Environmental Color Chart) within six months of completion. Seed disturbed areas as stated in the Range Management section.

## **FOREST MANAGEMENT**

*Affected Environment:* The proposed route is located primarily in areas where there are no trees present. At the northern most location on BLM managed lands, the pipeline does traverse 570 feet of a dry exposure pinyon/juniper stand. A dry exposure primarily occurs on a southern facing slope where the soil features and solar heating are not conducive to precipitation retention and tree growth.

*Environmental Consequences of the Proposed Action:* The proposed action will traverse 570 feet of a dry exposure pinyon/juniper stand for approximately 0.6 acres. Due to the nature of the proposed action, the trees in the right-of-way will need to be removed. It will take approximately 35-50 years for the trees to begin to move back into the disturbed area post reclamation and 250 plus years for trees to repopulate the site at its current condition. The volume of trees to be removed from the site is estimated to be 1.5 cords.

*Environmental Consequences of the No Action Alternative:* There would be no surface disturbing activities and no removal of trees.

*Mitigation:* In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. 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. 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. 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 percent 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.

## **RANGELAND MANAGEMENT**

*Affected Environment:* The proposed action is located within Pasture C of the Square S grazing allotment (number 06027) and the Duck Creek/84 Mesa area of the Barcus-Pinto pasture of the Yellow Creek allotment (number 06030). Authorized livestock use within Pasture C of the Square S allotment currently occurs during the early summer (as cattle are moved to higher elevation summer range) and the late fall (as livestock are moved to winter range). Use within the Duck Creek/84 Mesa area occurs from June 1 to July 1 and again in the fall generally from October 16 to November 15.

*Environmental Consequences of the Proposed Action:* Implementation of the proposed action will result in a loss of vegetation available to grazing animals of approximately 8 animal unit months (AUMs) of forage. The forage loss is considered a short term loss. It is expected that there will be an increase in herbaceous vegetation available to grazing animals following successful revegetation of the disturbed area due to conversion of this area from sagebrush and pinyon/juniper dominated sites to grass/forb dominated sites which have higher forage production value for grazing animals. If construction occurs during the period livestock are permitted in this area, they will likely avoid the area adjacent to the proposed action during the period of activity. During this period there is increased risk of injury to livestock. After construction is complete, livestock will likely be minimally affected or even unaffected. The proposed pipeline route will cross three fences necessary for proper management of livestock. The first is in Section 11, T1S, R99W. This fence is used as a drift fence and does not serve as a boundary between allotments or pastures. Two other fences located in Section 29, T1S, R98W serve as a boundary between private and public lands, as well as the boundary between the Yellow Creek and Square S grazing allotments. If not properly repaired following construction, livestock will be able to move freely between grazing allotments.

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

*Mitigation:* Any range improvement projects such as fences or water developments that are damaged or destroyed as a result of implementation of the proposed action shall be promptly repaired or replaced to the degree of functionality prior to commencement of work associated with the proposed action. If construction occurs during the livestock use period listed above, the functionality of the allotment boundary fences in section 29 T1S R98W must be maintained through temporary fencing or gates which can be closed while crews are not present at these fence crossings.

## **ACCESS AND TRANSPORTATION**

*Affected Environment:* The area of the proposed action is accessed by CR 24, CR 24X, and CR 91. CR 24 (the Ryan Gulch Road) is a two lane paved surface route. CR 24X (Calamity

Ridge Road) is a two lane dirt surface route. CR 91 (Stake Springs Road) is a single lane natural dirt surface road. Traffic experienced in the area is primarily oil shale, natural gas, and agricultural related.

*Environmental Consequences of the Proposed Action:* The proposed action will be adjacent to three RBC roads. The amount of traffic will increase as construction begins, and the large trucks entering/leaving the county roads will interrupt the flow of traffic. Construction, traffic in the right-of-way, and reclamation of the pipeline right-of-way will generate dust. Due to the proximity to the county roads, the dust may decrease visibility to travelers along the pipeline route. Increased localized heavy truck traffic with the transportation of equipment and pipe along CR 24X and 91 may also break down the road surface and increase dust. The dust generated from pipeline construction activities coupled with the increased traffic on dirt road surfaces of CR 24X and 91 may decrease the visibility more for the traffic traveling these routes.

*Environmental Consequences of the No Action Alternative:* There would be no increase in traffic creating increased dust and interrupting the flow of traffic.

*Mitigation:* Suppress dust in dry conditions utilizing water along the pipeline right-of-way where it is adjacent to CR 24, 24X, and 91 to minimize fugitive dust and maintain good visibility for traffic. Follow Rio Blanco County approved dust suppression methods along CR 24X and 91 to minimize dust generated from traffic on the road way.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The proposed pipeline and boosting station will require a ROW. The pipeline will parallel natural gas pipeline and water line rights-of-way authorized to Bargath, Inc. Existing rights-of-way include: power lines authorized to White River Electric Association; roads authorized to Rio Blanco County, Encana Oil & Gas (USA) Inc., Shell Frontier Oil & Gas, Shale Tech International; and pipelines authorized to Encana Oil & Gas (USA) Inc., Colorado Interstate Gas Company, Enterprise Products Operating, Williams Northwest Pipeline, and Questar Pipeline Company. The access road to the proposed boosting station will utilize the existing access road to Williams Production RMT Company's (Williams) #24-29-198 well pad.

*Environmental Consequences of the Proposed Action:* Natural gas pipeline right-of-way COC74728 would be 36,400 feet long with a width of 25 feet, and also include the three and a half acre boosting station, containing approximately 24.4 acres. Temporary use permit COC74728-01 for construction of the pipeline would be 36,400 feet long with a width of 25 feet, containing approximately 20.9 acres. The water line would be buried within the same trench as the natural gas pipeline; therefore, water line right-of-way COC74729 would be 36,400 feet long, 15 feet wide, containing approximately 12.5 acres. Power lines, roads, and existing natural gas lines could be impacted by the construction and maintenance of the proposed natural gas pipeline. To avoid impacts to existing rights-of-way, Mesa would need to coordinate with right-of-way holders prior to any construction activity. Since Mesa and Williams will share the access road to the boosting station and well pad, a joint maintenance agreement would be necessary to insure shared responsibility for use of the road.

*Environmental Consequences of the No Action Alternative:* The buried natural gas pipeline, water line, and boosting station would not be built, and Mesa Energy Partners would need to acquire an alternative for gathering gas from wells within the Buckhorn Draw Unit.

*Mitigation:* All activities shall 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.

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 shapefiles or geodatabases; 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.

For the purpose of determining joint maintenance responsibilities, the holder shall make road use plans known to all other authorized users of the common access road. Upon request, the Authorized Officer shall be provided with copies of any maintenance agreement entered into.

**CUMULATIVE IMPACTS SUMMARY:** There is a large amount of oil and gas development in and around the proposed action. This development includes access roads, well pads, and pipelines. Regarding the analysis of cumulative effects of this action on renewable and non-renewable resources associated with this project and other future projects, which are similar in both scope and extent, cumulative impacts of pipelines are addressed in the White River ROD/RMP for each resource value (USDI BLM 1997). Moreover, the current proposed action, as described above, is consistent with the scope of impacts addressed in the White River ROD/RMP.

#### **REFERENCES CITED:**

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- 2005 Class III Cultural Resource Inventory Report for the Proposed Canary Unit #N02-199 Well Location and Two Linear Routes in the Canary and Left Fork Units in Rio Blanco County, Colorado for Encana Oil and Gas (USA) Inc. Grand River Institute, Grand Junction, Colorado. #05-11-07
- 2007 Class III Cultural Resource Inventory for the Ryan Gulch to Barcus Creek Pipeline Project in Rio Blanco County, Colorado, for Williams Production RMT. Grand River Institute, Grand Junction, Colorado. #07-11-19

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- 2005 A Class III Cultural Resource Inventory for the Proposed RGU #34-19-198 Well Location and Related Access in Rio Blanco County, Colorado for Williams Production RMT Company. Grand River Institute, Grand Junction, Colorado. #05-11-11

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- 2009 Class III Cultural Resource Inventory Report for Portions of Five Pipeline Projects (Pitcher's Mound, Black Sulphur, Dry Gulch, Water Fork and Ryan Ridge) and the Dry Gulch Compressor Station in Rio Blanco County, Colorado for Bargath, Inc. Grand River Institute, Grand Junction, Colorado. #09-11-32

Olsson Associates.

2011. Stake Springs Compressor Station Hydraulic Analysis. Submitted to BLM March 21, 2011.

Tweto, Ogden

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

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

**INTERDISCIPLINARY REVIEW:** The proposed action was presented to, and reviewed by the White River Field Office interdisciplinary team on November 23, 2010.

<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, and Soils	3/25/2011
Michael Selle	Archaeologist	Cultural Resources, Paleontological Resources	02/16/11
Tyrell Turner	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management, Areas of Critical Environmental Concern, Threatened and Endangered Plant Species	2/16/11
Lisa Belmonte	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife, Wetlands and Riparian Zones	02/04/11
Christina Barlow	Natural Resource Specialist/HazMat Coordinator	Wastes, Hazardous or Solid	03/22/11
Jim Michels	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation,	2/24/11
Jim Michels	Forester /Fire / Fuels Technician	Fire Management, Forest Management	2/24/2011
Paul Daggett	Mining Engineer	Geology and Minerals	01/14/11
Stacey Burke	Realty Specialist	Realty Authorizations	02/15/11
Jim Michels	Natural Resource Specialist / Outdoor Recreation Planner	Visual Resources	2/24/11
Melissa J. Kindall	Range Technician	Wild Horses	02/22/11

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

### **DOI-BLM-CO-110-2011-0028-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 authorize the proposed pipeline and boosting station ROWs as described in the attached EA in order to meet resource needs of the public. This decision is contingent on meeting all mitigation measures and monitoring requirements listed below.

**MITIGATION MEASURES:**

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. 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.
3. 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 percent 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.
4. 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.
5. 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.

6. 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.
7. 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.
8. 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.
9. Promptly revegetate all disturbed areas associated with the northern portion of the proposed pipeline running between Duck Creek and Corral Gulch with native seed mix #3 from the White River ROD/RMP listed below. All disturbed areas associated with the southern portion of the proposed pipeline, and boosting station should be seeded with Native seed mix #5 from the White River ROD/RMP also listed below. Seeding rates in the White River ROD/RMP are shown as pounds of Pure Live Seed (PLS) per acre and apply to drill seeding. For broadcast application, double the seeding rate and then harrow to insure seed coverage. Applied seed must be certified and free of noxious weeds, and seed certification tags must be submitted to the Authorized Officer. Woody debris will not be scattered on the pipeline until after seeding operations are completed.

<b>White River Field Office Native Seed Mix #3</b>	
<b>Species</b>	<b>Seeding Rate Pure Live Seed (PLS)</b>
Western wheatgrass (Rosanna)	2 lb/ac. PLS
Indian ricegrass (Nezpar)	2 lb/ac. PLS
Bluebunch wheatgrass (Whitmar)	2 lb/ac. PLS
Thickspike wheatgrass (Critana)	1 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Utah Sweetvetch	1lb/ac. PLS
Alternates: Needle and Thread Grass and Globemallow	

<b>White River Field Office Native Seed Mix #5</b>	
<b>Species</b>	<b>Seeding Rate Pure Live Seed (PLS)</b>
Basin wildrye (Magnar)	2 lb/ac. PLS
Western wheatgrass (Rossana)	3 lb/ac. PLS
Bluebunch wheatgrass (Whitmar)	1 lb/ac. PLS
Thickspike wheatgrass (Critana)	2 lb/ac. PLS
Fourwing Saltbush (Wytana)	1 lb/ac. PLS
Alternates: Utah sweet vetch and Globemallow	

10. The area should be surveyed for the presence of noxious/invasive species before and after construction. If undesirable species are found, they shall be promptly eradicated using materials and methods approved in advance by the BLM authorized officer. 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.
11. Pipeline construction from the boosting station north will be completed prior to May 15 to avoid conflict with BLM migratory bird breeding survey. Mesa will contact BLM biologists immediately if construction plans change.
12. In the interest of reducing adverse influences (aversion to high noise levels) on the utility of adjacent big game winter ranges that support concentrations of mule deer and reproductive habitats of migratory birds, measures to reduce sound levels will be required on compressors and internal combustion engines associated with on-site power generation. These measures would include, at a minimum, installation of hospital-grade mufflers and enclosure of such components in sound-insulated buildings.
13. Should the proposed action occur simultaneous with a wild horse gather, all project-related traffic would need to be coordinated with the BLM and the contractor for the gather.
14. To minimize the incidents of young foals becoming dislocated from their mare, crews would be required to slow or stop when wild horses are encountered, allowing the bands to move away at a pace slow enough so that the foal can keep pace and is not separated.
15. Place earthen trench plugs and/or ramps along the trench at well defined wild horse trails intersected by open trench. Regularly inspect open trench for trapped animals and if injured animals are found contact the BLM.
16. All installed cattle guards at fence crossings associated with access roads and/or pipeline will be upgraded to a horse proof cattle guard so that the risk of wild horses being trapped in any of the installed cattle guards is reduced.
17. 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 historic or archaeological sites, or for collecting artifacts. If historic or archaeological 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 authorized officer (AO). Within five working days the AO will inform the holder as to:

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

18. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
19. All construction activity between -108.427W, 39.937N, and -108.426W, 39.936N, (ca 730 feet) must be confined to the east side of all existing previous disturbance.
20. All construction activity must remain within 100 feet of the centerline of the existing pipeline this project proponent has proposed to parallel.
21. 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 authorized officer (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.

22. If it becomes necessary to excavate into the underlying rock formation to prepare the pipeline trench for the pipelines, a paleontological monitor shall be present before and during all such excavations.
23. Paint and regularly maintain all above ground features (for example: valves, pigging stations, and pipe fence barriers) with Juniper Green (Standard Environmental Color Chart) within 6 months of completion. Seed disturbed areas as stated in the Range Management section.
24. In accordance with the 1997 White River RMP/ROD, all trees removed in the process of construction shall be purchased from the BLM. 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. 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. 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 20percent 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.
25. Any range improvement projects such as fences or water developments that are damaged or destroyed as a result of implementation of the proposed action shall be promptly repaired or replaced to the degree of functionality prior to commencement of work associated with the proposed action. If construction occurs during the livestock use period listed above, the functionality of the allotment boundary fences in section 29 T1S R98W must be maintained through temporary fencing or gates which can be closed while crews are not present at these fence crossings.
26. Suppress dust in dry conditions utilizing water along the pipeline right-of-way where it is adjacent to CR 24, 24X, and 91 to minimize fugitive dust and maintain good visibility for traffic. Follow Rio Blanco County approved dust suppression methods along CR 24X and 91 to minimize dust generated from traffic on the road way.
27. All activities shall 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.

28. 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 shapefiles or geodatabases; 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.
29. For the purpose of determining joint maintenance responsibilities, the holder shall make road use plans known to all other authorized users of the common access road. Upon request, the Authorized Officer shall be provided with copies of any maintenance agreement entered into.
30. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or if activities are otherwise approved by the Authorized Officer (AO).
31. In order to protect public land health standards for soils, erosion features such as riling, gulying, 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 Reality Specialist and submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
32. Topsoil will be removed to a depth of 6-8 inches or as determined on-site by BLM in areas of surface disturbance and for soil storage planned for longer than one year. Topsoil piles will be covered, seeded, labeled and stored unmixed with other soils for spreading during reclamation.
33. 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.
34. 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.

35. 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 before topsoil is respread. Another suitable method of de-compaction may be used before topsoil is respread 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.
36. 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.
37. After pipeline construction activities are completed Mesa Energy 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.
38. After pipeline-construction activities are completed, the Mesa Energy 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.
39. Keep road inlet and outlet ditches, catchbasins, and culverts free of obstructions, particularly before and during spring run-off. Routine machine-cleaning of ditches should be kept to a minimum during wet weather. Leave the disturbed area in a condition that provides drainage with no additional maintenance.
40. Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Install culverts with adequate armoring of inlet and outlet. Patrol areas susceptible to road or watershed damage during periods of high runoff.
41. Culverts and waterbars should be installed according to BLM Manual 9113 standards and sized for the 10-year storm event with no static head and to pass a 25-year event without failing.

**COMPLIANCE/MONITORING:** On-going compliance inspections and monitoring will be conducted by WRFO staff during and after construction. 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:**

*Ken St. Walter*

Field Manager

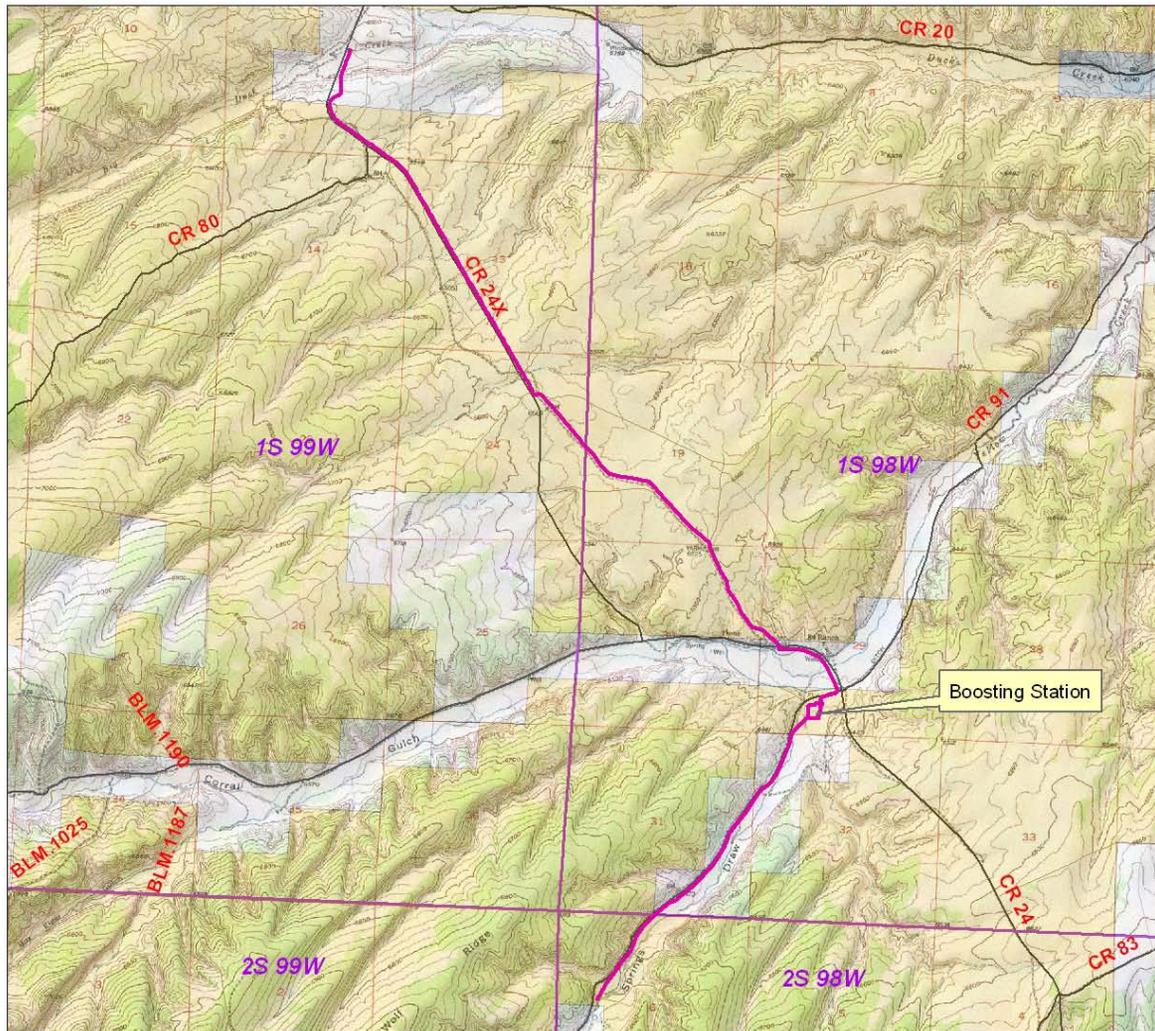
**DATE SIGNED:**

*04/06/2011*

**ATTACHMENTS:** Exhibit A – Maps of Proposed Action

# Mesa's Buckhorn Draw Unit Gathering System

## EXHIBIT A



- Projects: polygon selection
- Projects: line selection
- BLM
- CDW
- County
- FOR
- NPS
- FRI
- STA
- PLS\_S\_Township\_CD082008
- State
- County
- BLM
- USFS
- NPS
- Other



Sources:  
BLM, USGS, CDOW, etc.

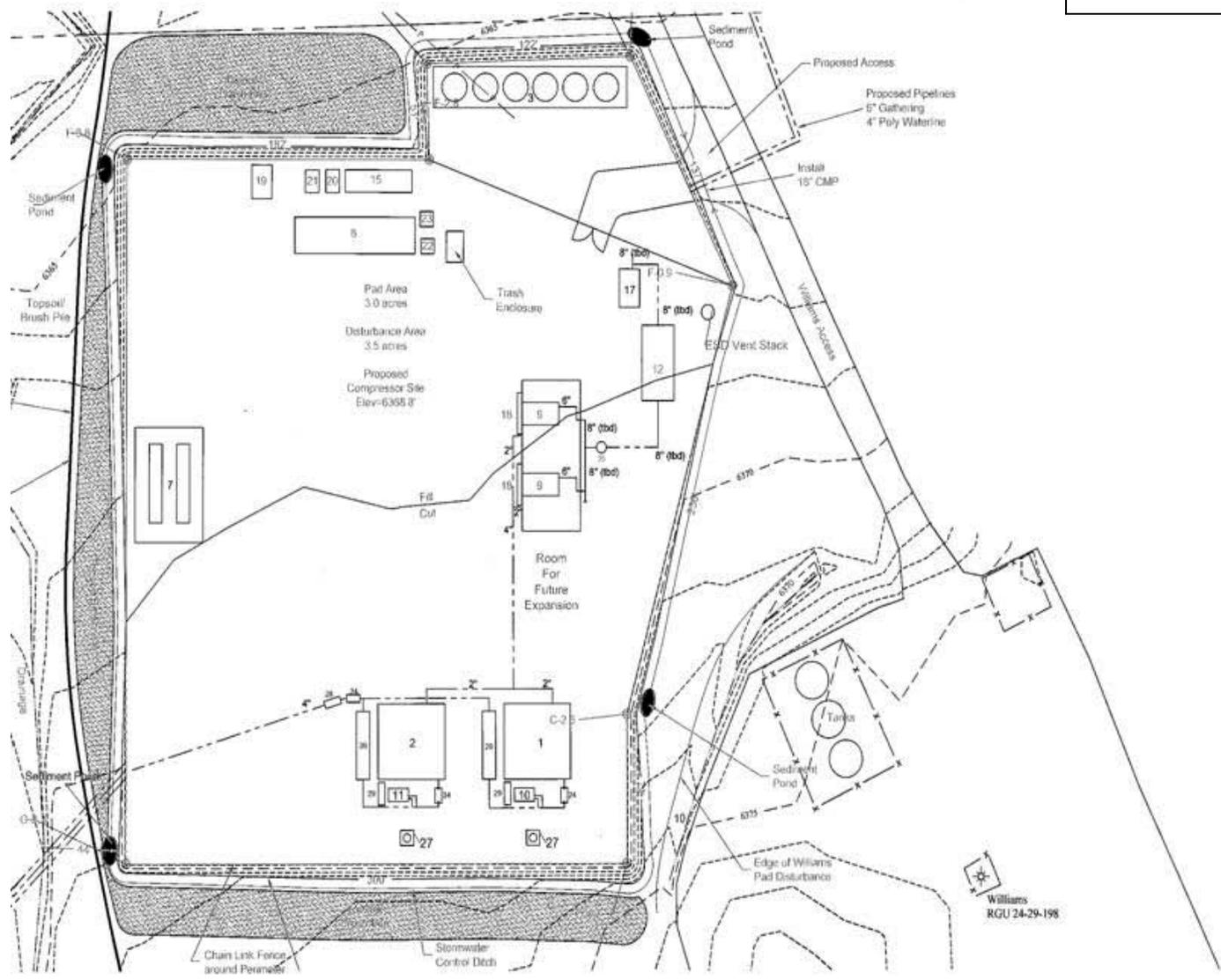
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March 2011



Exhibit A – Boosting Station



- Equipment List
- 1 Amine processing unit#1
  - 2 Amine processing unit #2
  - 3 Tank battery and containment
  - 4 Pipe racks - casing
  - 5 Pipe racks - tubing
  - 6 Pipe racks - line pipe
  - 7 Bullet tanks
  - 8 Parking (6 vehicles)
  - 9 Compressor pad & building
  - 10 Dehydration unit #1
  - 11 Dehydration unit #2
  - 12 Slug catcher
  - 13 Pipe manifold inlet & meter
  - 14 Pipe manifold outlet & meter
  - 15 Plant office
  - 16 Cooler clearance
  - 17 Pig receiver
  - 18 Cooler
  - 19 Generator & Panel
  - 20 Potable water tank
  - 21 Port-o-let
  - 22 Electrical building
  - 23 Scada building
  - 24 Filter-Separator
  - 25 Production Scrubber
  - 26 Hydrocarbon Dewpoint Control
  - 27 Combustor
  - 28 Metering
  - 29 BTEX Condenser

Boosting Station and Access Road  
T. 1 S., R. 98 W., sec. 29

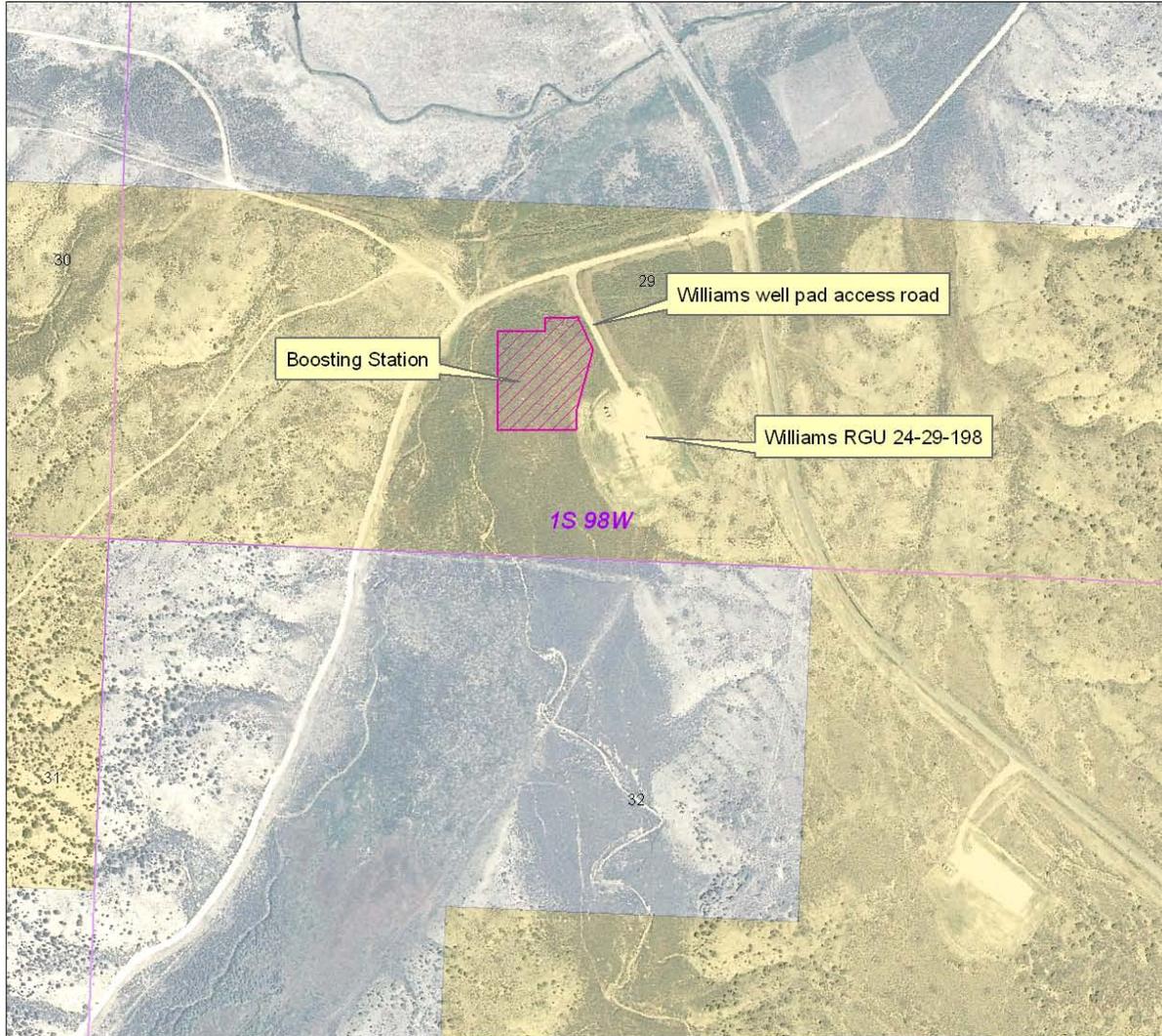


EXHIBIT A

- Projects: polygon selection
- BLM
- CDW
- County
- FOR
- NPS
- PRI
- STA
- PLSS\_Sectons\_GCD82008
- PLSS\_Townshps\_GCD82008



Sources:  
BLM, USGS, CDOW, etc.

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April 2011

