

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

**Categorical Exclusion
for
Black Hills Plateau Production, LLC
Horseshoe Canyon Well 4-28
Buried Natural Gas and Water Pipelines
Horseshoe Canyon Unit**

**Grand Junction Field Office
2815 H Road
Grand Junction, Colorado 81506**

DOI-BLM-CO-130-2012-0026-CX

March 2012



LEGAL DESCRIPTION

Sixth Principal Meridian, Colorado,
T. 9 S., R. 97 W.,
Section 28: W $\frac{1}{2}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$ and NW $\frac{1}{4}$ SW $\frac{1}{4}$
Section 29: E $\frac{1}{2}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$
Mesa County, Colorado

USGS Quadrangle Map: Mesa, Colorado (see Map 1).

APPLICANT

Black Hills Plateau Production, LLC
1515 Wynkoop Street, Ste 500
Denver, Colorado 80201

INTRODUCTION AND BACKGROUND

Black Hills Plateau Production, LLC (Black Hills) recently drilled and completed well 4-28 within the Horseshoe Canyon (HSC) federal Unit (HSC 4-28). Construction and operation of the HSC 4-28 well pad and well were analyzed by BLM (DOI-BLM-CO-130-2009-021-EA) and the Application for Permit to Drill (APD) was approved by the BLM Grand Junction Field Office on December 15, 2008. The 2008 APD was for a conventional well targeting the Mesaverde and Dakota formations and included a 6-inch natural gas gathering pipeline that would be installed along the access road to the existing HSC 1-28 well pad. Water supply delivery was proposed by truck.

On October 25, 2010, Black Hills submitted a Sundry Notice to BLM requesting a change (expansion) to the well pad layout. Additional revisions were submitted by Sundry Notice on January 25, 2011 and February 21, 2011. The revised Sundry Notices requested expansion of the well pad to accommodate targeting the deeper Mancos Shale Formation using horizontal drilling. BLM approved the Sundry Notices on February 28, 2011 (DOI-BLM-CO-130-2011-0028-CX (390)).

The CX identified a 12.6-mile temporary surface water line from Latham Ponds to the HSC 4-28 well pad as a method of water delivery, rather than water delivery by truck analyzed in the 2008 EA. On April 11, 2011, Black Hills submitted a Sundry Notice to change the route of the temporary surface water line that would shorten the route to approximately 3 miles, from the Colorado River via HSC-1 to HSC 4-28 well pad. BLM approved the shorter temporary surface water line route in August 2011 (DOI-BLM-CO-130-2011-0047-CX).

On April 27, 2011, Black Hills submitted a Sundry Notice to change the size and route of the approved steel natural gas gathering pipeline (2008 EA), and install two additional HDPE (high density polyethylene) pipelines to transport water to and from HSC 4-28 well pad. The buried pipelines would be installed adjacent to an existing road and within previous disturbance from the HSC 4-28 well pad to the existing HSC-1 well pad and include: a 10-inch HDPE supply water line, a 4-inch HDPE produced water gathering line, and an 8-inch steel natural gas pipeline. In August 2011, Black Hills submitted a change to the route for the three buried lines to run from well HSC 4-28 to well HSC 4-21, extending the pipeline route to 3.5 miles, 1.5 of which would be on private surface.

To avoid having to flare gas until approval for burying the pipelines, Black Hills submitted a Sundry Notice on November 17, 2011 to place an 8-inch steel gas pipeline on the surface from the completed HSC 4-28 well pad to the HSC 1 well pad along the approved route for the temporary surface water line (August 2011 CX). BLM Grand Junction Field Office approved the

Sundry Notice on November 18, 2011, indicating that the surface natural gas pipeline must be removed within 1 year of the date it is installed. This pipeline was not constructed.

In January 2012, BLM approved Black Hills request to use the existing 10-inch HDPE line to temporarily transport gas from the HSC 4-28 well pad to the HSC 1 well pad awaiting approval to construct a buried steel gas pipeline. On February 23, 2012, there was a fire in the HDPE water line and the HSC 4-28 well is currently shut-in because there is no way to transfer gas from the HSC 4-28 well pad to the HSC 1 well pad.

In 1970, 1979, and 1982, under BLM ROW COC28022-R, disturbance was permitted at a width of 35 feet adjacent to the access road. The corridor disturbance width, which included both road and pipeline, was permitted at 50 feet. Aerial photo interpretation confirms existing pipeline disturbance along the road between HSC 4-28 and HSC 1.

DESCRIPTION OF PROPOSED ACTION

Black Hills proposes to install three pipelines in the same trench within a 30-foot temporary disturbance adjacent to an existing road and within previous disturbance for a portion of the route entirely on BLM-administered lands. Three pipelines are proposed: an 8-inch steel natural gas gathering pipeline, a 4-inch produced water HDPE line, and a 10-inch HDPE water supply line. The pipeline alignment would begin at well pad HSC 4-28 and follow the existing access road west to existing well pad HSC 1. Map 2 provides a general location of the proposed pipeline alignment. The length of the pipeline route would be approximately 1.0 mile (5,266 feet) within the federal Horseshoe Canyon Oil and Gas Unit on BLM-administered lands. Portions of the proposed route were previously disturbed during construction of an existing buried pipeline. Black Hills estimates a total disturbance of up to 3.5 acres (5,152 feet long by 30 feet wide).

The 8-inch steel natural gas gathering pipeline would tie-in to an existing gathering system at HSC 1 to deliver produced natural gas to markets. The 4-inch produced water HDPE line would eventually tie into a produced water gathering system. Produced water would continue to be trucked from the HSC 4-28 well pad to Hancock Gulch #1 injection well until the produced water gathering system is constructed. The 10-inch HDPE water supply line would provide water to the HSC 4-28 well pad for drilling future wells. The proposed 10-inch HDPE water supply line to be buried is currently in place on the surface. It was used as a water supply line for drilling the HSC 4-28 well and was approved under CX approved in August 2011. Tie-ins to existing pipelines would occur within existing disturbance. The three pipelines would be installed in the same trench with a minimum of 3 feet of cover. The gas pipeline would be installed with a pig launcher and receiver, and three crossover valves to tie into the existing gas gathering system to help lower system pressure.

Prior to construction, the pipeline centerline and edge of working room would be staked in the field. The centerline stake is an approximate location and may be moved during construction to avoid existing pipelines and to ensure safe construction – i.e. rocky areas or side hill slopes may require adjusting the centerline based on the construction superintendent's recommendation for safe installation. Resource sensitive areas would be fenced before construction begins. Boundary stakes or fencing would be maintained until final cleanup and reclamation are complete, and then removed. Installation of protective fencing may require monitoring. Existing well pads may be utilized as temporary storage/parking areas as needed during construction. Stormwater BMP's would be installed before construction begins.

The workforce is anticipated to include an estimated 30 to 40 workers. The pipeline construction crews would include laborers, equipment operators and welders. Crews would meet in the contractor's yard in DeBeque, then proceed to the job site and via the DeBeque cut-off road and the Horseshoe Canyon road. A construction inspector, environmental monitors and x-ray crew would be present during construction.

Prior to, and during construction, appropriate signage would be placed on the roads to notify the public of the construction activities. The typical construction sequence for pipelines is:

- Clearing and grading
- Trenching
- Pipe stringing, welding/fusing
- Pipe lowering in
- Trench backfilling
- Pressure testing and tie ins
- Clean up and reclamation

Clearing would only occur within the staked boundaries and would be limited to the minimum area required for safe and efficient construction. Trees and brush would be cut and piled to one side for later use in reclamation. Trees cleared from all areas but the actual ditchline would be cut at ground level with a chainsaw or mechanical shears. Limbs and small diameter branches would be chipped and stockpiled. The top 4 to 6 inches of topsoil would be removed and segregated from the ditch line.

After the working area is prepared, ditching operations would begin with a track hoe and/or ditching machine. No blasting is anticipated, but if this is required, the BLM would be consulted before proceeding. The width of the ditch would be no larger than is need to accommodate the pipes, and is anticipated to be 36 inches wide. The depth of the ditch would vary with the conditions encountered. The cover from the top of the pipe to ground level will generally be at least 36 inches, except in solid rock, where the cover would be 24 inches. The ditch would be open several days until all of the pipes are lowered in and backfilling is started. Excavations would meet OSHA requirements. The ditch spoil would be placed along the road and flattened so it becomes the driving surface. If large boulders are encountered, these would be placed off to the side, clear of (or avoiding) sensitive resources.

The ditching operation would be followed by pipe stringing, bending, lining up, welding, radiographic examination and coating (for the steel pipe), the 10" HDPE pipe would be strung then fused, and the 4" HDPE line would be supplied on reels and would be strung from the reel truck. Before the pipe is placed in the ditch, selected fill material would be used to pad the pipe in areas where there are rocks in the ditch bottom. The pipe would be lowered into the ditch by side-boom tractors, then more of the select fill material would be used to pad the pipe before the ditch is backfilled. Topsoil would not be used for padding or fill material.

After the pipes are buried in the ditch, they would be pressure tested using air or fresh water to ensure structural integrity prior to being placed in service. For this project, the fresh water would be returned to the fresh water ponds on David Furr's private property. The pipe would be tested to 1.1 times the MAOP (Maximum Allowable Operating Pressure) for 8 hours.

Following the backfilling operation, cleanup and reclamation would occur. The backfilling would be completed using the spoil previously excavated from the ditch. The ditch would be

compacted as much as possible over the pipe during backfilling. This is usually accomplished by driving over the backfill with a rubber-tired backhoe. A small berm no more 8 inches in height would be formed over the ditch to accommodate for some soil settling, and pipeline markers would be installed. The disturbed surface would be restored to the original contour of the land. This includes moving all the fill material back into the side hill cuts that were made during construction of the pipeline. Water diversions would be constructed as needed to control surface water and erosion. Tree limbs may be chipped and spread along the disturbed area or placed back on the disturbed area and "walked down". Seed would be planted following construction per the BLM conditions of approval. Above ground piping would be painted per the BLM recommended color.

The proposed route was surveyed for resource concerns in spring 2011. Grand River Institute and WestWater Engineering conducted the cultural and biological surveys, respectively. Stormwater BMPs would be installed before construction and would be monitored and maintained under CDPHE stormwater permit COR03D195, until the pipeline corridor is successfully reclaimed. The pipeline is proposed to be reseeded with a BLM-approved wildlife-friendly seed mixture as listed below.

The following wildlife-friendly seed mix would be used during reclamation on BLM-administered lands:

Common Name	Scientific Names	Variety	Season	Form	PureLiveSeed (PLS) lbs/acre*
Grasses					
Bottlebrush Squirreltail	<i>Elymus elymoides</i> , <i>Sitanion hystrix</i>	Toe Jam Creek	Cool	Bunch	2.0
Orchardgrass	<i>Dactylis glomerata</i>	Paiute, Pomar	Cool	Sod-forming	1.0
Slender Wheatgrass	<i>Elymus trachycaulus</i> , <i>Agropyron trachycaulum</i>	Revenue, Pryor	Cool	Bunch	3.0
Western Wheatgrass	<i>Pascopyrum smithii</i> , <i>Agropyron smithii</i>	Barton, Rodan, Rosana, Arriba, Walsh	Cool	Sod-forming	4.8
Indian Ricegrass	<i>Achnatherum hymenoides</i> , <i>Oryzopsis hymenoides</i>	Nezpar, Paloma, Star Lake	Cool	Bunch	2.8
Junegrass	<i>Koeleria cristata</i> , <i>Koeleria macrantha</i>		Cool	Bunch	0.1
Forbs					
Blue Flax	<i>Linum lewisii</i>	Maple grove			0.5
Northern sweetvetch	<i>Hedysarum borale</i>	Timp			0.5
Palmer Penstemon	<i>Penstemon palmerii</i>	VNS**			0.5
(OR Rocky Mtn Pen	<i>Penstemon strictus</i>	VNS			0.5)
Small Burnet	<i>Sanguisorba minor</i>	Delar			1.0
Western Yarrow	<i>Achillea millefolium</i> [occidentalis]				0.1
Shrubs					
Four-wing saltbush	<i>Atriplex canescens</i>				2.0
Shadscale	<i>Atriplex confertifolia</i>				1.5
Winterfat	<i>Krascheninnikovia lanata</i> , <i>Ceratoides lanata</i>				0.5
Antelope bitterbrush	<i>Purshia tridentate</i>	VNS			1.0
TOTAL Pure Live Seed per acre					20.8

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: GRAND JUNCTION Resource Management Plan and Record of Decision

Date Approved: January 29, 1987

Decision Number/Page: 2-7 through 2-11

Decision Language: To make Federal oil and gas resources available for leasing, except where prohibited by law or where administrative action is justified in the national interest; to make public lands available for economically and environmentally sound exploration and development projects; to avoid health and safety hazards; to protect important sensitive resource values from unacceptable impacts; and to minimize impacts to lessees from sensitive resource protection and hazard avoidance.

CATEGORICAL EXCLUSION REVIEW:

The proposed action is categorically excluded from further documentation in accordance with statutory NEPA categorical exclusions (CXs), as granted in Section 390 of the Energy Policy Act of 2005, for oil and gas exploration and development. The proposed action qualifies as a categorical exclusion under Section 390, based on the qualifying criterion Number (1). This action qualifies because individual surface disturbance of 3.5 acres is less than five (5) acres. The pipeline crosses two leases (COC-13788 and C-17356). Existing wellfield related disturbance on lease COC-13788 is 35.58 acres and existing wellfield related disturbance on lease C-17356 is 25.52 acres; all of which is not greater than 150 acres. Site-specific analysis in a document prepared pursuant to NEPA has been previously complete. Well pad HSC 4-28, access roads, and pipelines were previously analyzed (DOI-BLM-CO-130-2009-021-EA).

INTERDISCIPLINARY REVIEW

The proposed action was reviewed by the following resource specialists.

<u>Name</u>	<u>Title</u>	<u>Area of Responsibility</u>
Aline LaForge	Archaeologist	Cultural Resources Native American Religious Concerns
Anna Lincoln	Ecologist	Special Status Species

REMARKS**CULTURAL RESOURCES**

Current Conditions: A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by a Colorado BLM permitted cultural resource contracting firm (GJFO CRIR 1111-03). Previous Class III inventories have been conducted over the last three decades and one site (5ME634) was previously recorded in the APE. Grand River Institute (GRI) reevaluated this site (GRI, 2011).

Site 5ME634 was officially determined eligible under criterion "d" for information potential in 2008 and no change was made to that evaluation. Site 5ME634 is 17 meters from the proposed disturbance, within the area of potential effect.

Impacts: Relocating the proposed pipeline route and resulting disturbance from one side of the road to the other or placing the pipelines in the road would avoid potential impacts to Site 5ME634. Orange exclusion fencing placed on the north side of the road as provided in the Conditions of Approval will further protect Site 5ME634. Installation of construction barricade along the road to protect 5ME634 shall be completed prior to any construction activities. Installation and removal of the barricade requires the presence of BLM CO permitted archaeological monitors. A fieldwork authorization request for barricade installation must be submitted to the BLM. At least 5 days is required from the time the request is made and authorization would be issued. The BLM will include in the Conditions of Approval the requirement for the presence of monitors during barricade installation and removal and that vehicles will be restricted to the existing road and no parking will be allowed adjacent to the road except for within the proposed disturbance area. Cultural monitoring of this area will not be required during pipeline placement. The eligible site will be avoided and there will be no adverse effect to the eligible site as a result of approving this project. Adherence to the attached Conditions of Approval would provide adequate protection in the unlikely event of inadvertent discovery.

NATIVE AMERICAN RELIGIOUS CONCERNS

Current Conditions: No known evidence suggests the project area holds special significance for Native Americans, or is actively used to maintain any traditional practices. The project would not alter or limit any access if there were traditional uses that are not known to the agency. The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. No traditional cultural properties, unique natural resources, or properties of a type previously identified as being of interest to local tribes, were identified during the cultural resources inventory of the project area. No additional Native American Indian consultation was conducted for the proposed project.

Impacts: None expected.

SPECIAL STATUS SPECIES

PLANTS

Current Conditions: The proposed buried pipelines are within the potential range of two federally-threatened plants: Colorado hookless cactus (*Sclerocactus glaucus*) and DeBeque phacelia (*Phacelia submutica*). DeBeque phacelia critical habitat has also been proposed approximately 0.5 mile (2,450 feet) northeast of the proposed pipeline alignment (Glennie, 2011). Three BLM sensitive plants may also occur within the project area: DeBeque milkvetch (*Astragalus debequaeus*), Naturita milkvetch (*Astragalus naturitensis*), and aromatic Indian breadroot (*Pediomelum aromaticum*). WestWater Engineering (2011a and b) surveyed for Special Status Plant Species within 100 meters (328 feet) of the proposed pipeline alignment in potentially suitable habitat in May and June, 2011. In December 2011, WestWater Engineering (2011c) also conducted a habitat assessment for DeBeque phacelia within 200 meters (656 feet) of the proposed pipeline alignment. Colorado hookless cactus, DeBeque phacelia, DeBeque milkvetch, and aromatic Indian breadroot were not observed in the project area. No potentially suitable DeBeque phacelia habitat was observed within 200 meters of the proposed pipeline alignment. Approximately 668 Naturita milkvetch plants (60 sites) were documented within 100 meters of the proposed buried pipelines.

Impacts: Construction of the proposed pipelines may directly or indirectly affect approximately 668 Naturita milkvetch plants (60 sites) documented within 100 meters of the proposed surface disturbance (see USFWS and BLM, 2007). Approximately 155 plants (7 sites) would potentially be removed within the proposed 30-foot construction corridor. Direct disturbance of documented plants would be avoided by constructing the project on the side of the road opposite the plants and/or within the road. Potential inadvertent effects to Naturita milkvetch would be minimized by placing orange exclusion fencing along the edge of the road opposite the proposed disturbance corridor within 100 meters of known plant sites. A BLM-approved biological monitor on-site during construction would ensure that effects to Naturita milkvetch would be minimized, and ensure that orange exclusion fence is erected in the appropriate places along the pipeline alignment.

Indirect effects to the milkvetch plants documented within 100 meters of the proposed pipeline alignment could occur as a result of fugitive dust deposition on plants. To minimize effects to the plants, Black Hills would construct the proposed project outside the Naturita milkvetch flowering season (April through early June). Black Hills should also minimize fugitive dust during pipeline construction through watering (without the use of magnesium chloride) where Naturita milkvetch plants are within 100 meters of the proposed route.

TERRESTRIAL WILDLIFE

Current Conditions: No BLM sensitive wildlife species have been observed within the project area (WestWater Engineering, 2011a). However, the project area may provide suitable habitat for the following BLM-sensitive species: midget faded rattlesnake (*Crotalus viridis concolor*), milk snake (*Lampropeltis triangulum taylori*), Great Basin spadefoot (*Spea intermontana*), and northern leopard frog (*Rana pipiens*), and provide foraging habitat for the ferruginous hawk (*Buteo regalis*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), fringed myotis (*Myotis thysanodes*), and big free-tailed bat (*Nyctinomops macrotis*). Brewer's sparrow (*Spizella breweri*) may also be in the project area based on habitat and known distribution; however, surveys did not observe the species or potential nest. The project is within historic habitat for two federal candidate species – the Gunnison sage-grouse (*Centrocercus minimus*) and the greater sage-grouse (*Centrocercus urophasianus*), and greater sage-grouse winter habitat is located over 2 miles northwest of the project on the other side of the Colorado River (CPW, 2011). These species are also BLM-sensitive species. Available

habitat within the proposed project area is not suitable for either of these candidate species. Recent surveys (2009) in the area found no evidence of birds in the immediate area, and there are no known reports in recent decades. Gunnison's and greater sage-grouse are not expected in the project area.

CPW (2011) has mapped seasonal ranges utilized by big game. Mule deer, elk, black bear, and mountain lion are expected within the project area, and during the winter, Elk and mule deer utilize the project area. Mule deer winter concentration area has been mapped by CPW (2011) within the project area.

Impacts: To avoid potential effects to wintering big game, the proposed project would not be constructed between January and March 1 (the annual timing limitation period). Individuals of the above listed special status wildlife species may be temporarily displaced; however, long term effects to special status wildlife species are not expected to occur as a result of the proposed natural gas and water pipelines. Construction of the proposed project would remove previously disturbed vegetation within an existing pipeline corridor and altered vegetation adjacent to existing disturbance (i.e., access road and existing pipeline corridor), including pinyon-juniper woodlands and big sagebrush shrublands.

RAPTORS/MIGRATORY BIRDS

Current Conditions: Several raptor species may nest, forage, or pass through the project area. In 2011, WestWater Engineering conducted a raptor survey in woodland and cliff habitat within 0.25 mile and 0.5 mile of the proposed pipeline alignment, respectively (WestWater Engineering, 2011a). An unoccupied woodland raptor nest was documented 937 feet (0.18 mile) from the terminus of the proposed alignment at HSC 1. No other raptor nests or individuals were observed during surveys.

The woodlands, shrublands, and mixed grasslands within the project area provide nesting and foraging habitat for migratory and resident bird species at various times of the year. WestWater Engineering (2011a) observed pinyon jays (*Gymnorhinus cyanocephalus*), gray vireos (*Vireo vicinior*), and juniper titmice (*Baeolophus griseus*) within the project area in 2011. As discussed, above, Brewer's sparrow may also be in the project area based on habitat and known distribution; however, surveys did not observe the species or potential nests. No other migratory bird nests were observed during the surveys; it is unlikely these species would nest within the barrow ditch or previously disturbed habitat where the proposed project would be constructed.

Impacts: Nesting raptors could be affected during construction of the proposed project if nests were occupied during construction, depending on noise levels. If the proposed pipelines would be constructed between February 1 and August 15, a BLM-approved biologist should revisit the raptor nest documented in 2011 within 2 weeks prior to construction to determine nest status. If the raptor nest is active, a qualified BLM-approved biologist should monitor the nest during construction of the pipeline to ensure construction of the pipeline would not affect nesting raptors. If the biologist determines construction activities are negatively affecting nesting raptors, all activity should be delayed until the young had fledged or until the nest was no longer active, as determined by a qualified BLM-approved biologist.

Vegetation removal could potentially affect nesting migratory birds between May 15 and July 15. BLM would require a survey of the proposed new disturbance for migratory birds that nest on the ground two weeks prior to construction, if disturbance would occur between May 15 and July 15.

INVASIVE SPECIES (WEEDS)

Current Conditions: In the general project area, downy brome (*Bromus tectorum*) is a common ground cover, with native vegetation interspersed. Other non-native and invasive species documented within the project area include tamarisk (*Tamarisk* spp.) and musk thistle (*Carduus nutans*) (WestWater Engineering, 2011a).

Impacts: Tamarisk and musk thistle are on Colorado List B of the Colorado Weed Management Act, designating them as "...noxious weed species ... subject to eradication, containment, or suppression ... in order to stop the continued spread of these species." (CRS 3-5.5-108(2)a(II)).

To prevent further spread, the musk thistle should be treated and then removed prior to construction. A report detailing treatment would be required by the BLM weed coordinator. A licensed contractor approved and permitted through BLM would be required.

NAME OF PREPARER: Julia Christiansen *JCC*

NAME OF ENVIRONMENTAL COORDINATOR: Collin Ewing

DATE: March 6, 2012 *CE*

DECISION: I have reviewed this document and have decided to implement Black Hills' proposed project, Buried Water and Gas Pipelines, Well HSC 4-28, Horseshoe Canyon Unit, described above as the proposed action, with the appended Conditions of Approval.

The proposed action is categorically excluded from further documentation in accordance with statutory NEPA categorical exclusions (CXs), as granted in Section 390 of the Energy Policy Act of 2005, for oil and gas exploration and development. The proposed action qualifies as a categorical exclusion under Section 390, based on the qualifying criterion Number (1).

RATIONALE: This project will continue to support economically and environmentally sound exploration and development in the Horseshoe Canyon Unit, in a manner designed to protect sensitive natural resources and avoid known health and safety hazards. Implementation of the centralized water collection system via pipeline rather than by trucks would be expected to minimize future construction disturbance, truck traffic, dust and other impacts to air quality, as well as impacts to fragile soils and wildlife.

The proposed pipelines would be installed adjacent to an existing road and partially within previously disturbed areas across BLM-administered lands. Implementation of the attached Conditions of Approval would ensure that environmental effects of the proposed action would be minimized.

Catherine Reburn

Field Manager
Grand Junction Field Office

3/16/12

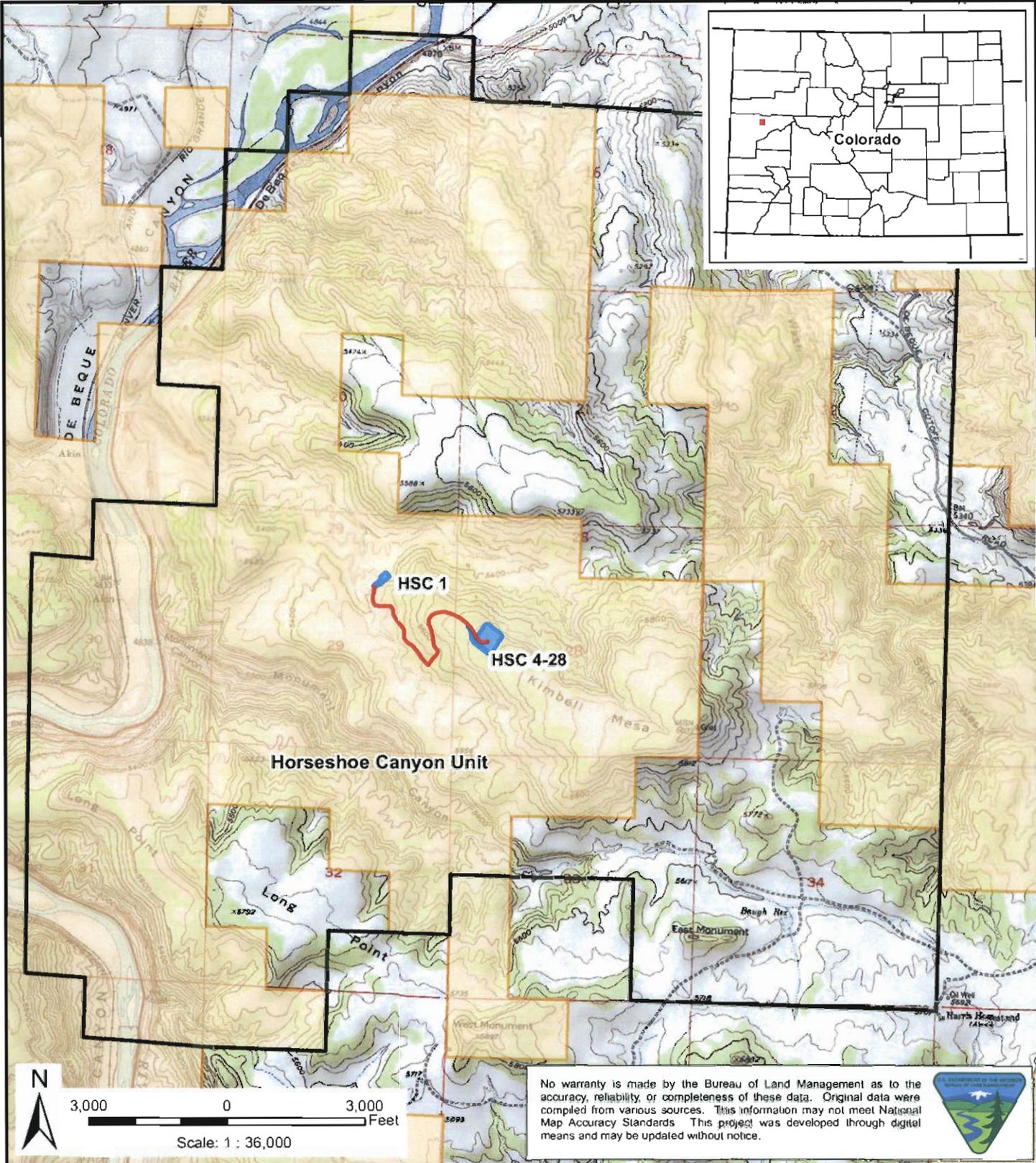
Date

References:

- Colorado Parks and Wildlife. 2011. Natural Diversity Information Source – Colorado's Biological Map and Data Resource. Accessed online: <http://ndis.nrel.colostate.edu/index.htm>.
- Glenn, G. 2011. Botanist, Western Colorado Field Office, U.S. Fish and Wildlife Service. Personal Communication with Edge Environmental, Inc. regarding Critical Habitat for DeBeque Phacelia prior to Notice of Availability. February.
- Grand River Institute. 2011. Report of the Class III Cultural Resources Inventory for a Proposed Surface Water Pipeline to the Horseshoe Canyon 4-28 Well Location in Mesa County, Colorado for Black Hills Plateau Production: GJFO CRIR #1111-03 and SHPO #ME.LM.R718. April.
- U.S. Department of Interior. Bureau of Land Management. 2007. Noxious and Invasive Weed Management Plan for Oil and Gas Operators - Grand Junction Field Office and Grand Valley Ranger District.
- U.S. Fish and Wildlife Service and Bureau of Land Management. 2007. Recommendations for Avoiding Adverse Effects on Threatened, Endangered, Proposed, Candidate and BLM sensitive plants on BLM lease lands in Colorado – Draft. USDI-Bureau of Land Management. Grand Junction Field Office, Grand Junction, Colorado.
- U.S. Fish and Wildlife Service. 2011. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Ipomopsis polyantha* (Pagosa skyrocket), *Penstemon debilis* (Parachute beardtongue), and *Phacelia submutica* (DeBeque phacelia). Proposed Rule. Federal Register 76(144):45078-45128.
- WestWater Engineering. 2011a. 2011 Biological Survey Report, Horseshoe Canyon Unit, Mesa County, Colorado. Prepared for Black Hills Exploration and Production. September.
- WestWater Engineering. 2011b. Threatened, Endangered, and Sensitive Plant Species Report: HSC 4-28 Surface Waterline. Prepared for Black Hills Exploration and Production. May.
- WestWater Engineering. 2011c. DeBeque Phacelia Habitat Assessment Report, Horseshoe Canyon Unit HSC 4-28 to HSC 4-20 Buried Pipeline, Black Hills Exploration & Production. December.

Exhibit A - Maps





No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This project was developed through digital means and may be updated without notice.

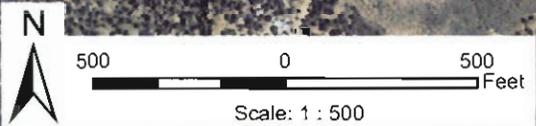


- Proposed Buried Natural Gas and Water Pipelines
- Horseshoe Canyon Unit Boundary
- BLM Administered Lands

MAP 1

General Location of the
Proposed Buried Natural Gas and Water Pipelines
for HSC 4-28

March 2012



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-  Proposed Natural Buried Gas and Water Pipelines
-  30-foot Proposed Disturbance
-  Pad Locations

MAP 2

Detailed Location of the
Proposed Buried Natural Gas and Water Pipelines
for HSC 4-28

March 2012



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- Proposed Buried Natural Gas and Water Pipelines (From HSC 4-28 to HSC 1)
- In-Road Construction
 - Left Side of Access Road
 - Right Side of Access Road
 - Biological Monitoring Required
 - Pad Locations
 - 30-foot Proposed Disturbance

MAP A
Conditions of Approval

Proposed Buried Natural Gas and Water Pipelines
 From HSC 4-28 to HSC 1

March 2012

Exhibit B
Conditions of Approval
HSC 4-28 Buried Natural Gas and Water Pipelines

Surface Location: 6th P.M., T. 9 S., R. 97 W., Sections 28 and 29.

1. Black Hills shall notify the BLM at least 48 hours prior to the commencement of any activities under this approval. The BLM contact person is Julia Christiansen, Grand Junction Field Office, 2815 H Road, Grand Junction, CO 81506, phone (970) 244-3093.
2. NO installation or use of the buried natural gas and water pipelines shall take place without BLM authorization.
3. Black Hills shall obtain and comply with all legal Federal, State and County resolutions and regulations and permit requirements.

All necessary environmental clearances, resolutions and regulations and permit requirements from all agencies (U.S. Army Corps of Engineers, Colorado Division of Wildlife, U.S. Fish & Wildlife, Colorado Department of Transportation, Colorado Department of Health & Environment, etc.), if required, shall be in order before work commences under this approval.

Black Hills shall assume all responsibility and liability related to potential environmental hazards encountered in connection with work under this approval. Without all clearances and permits, this approval is not in effect.

4. Black Hills shall notify all existing rights-of-way holders in the project area prior to beginning any surface disturbance or construction activities. Black Hills shall obtain an agreement with any existing ROW holders or other parties with authorized facilities that cross or are adjacent to those of the holder to assure that no damage to an existing ROW or authorized facility will occur. The agreement(s) shall be obtained prior to any surface disturbance.
5. To prevent further spread, musk thistle shall be treated and then removed prior to construction by a licensed contractor approved and permitted through the BLM. A report detailing treatment shall be submitted to the BLM weed coordinator. Herbicide application will be limited to spot treatments in areas occupied by Naturita milkvetch.
6. If the proposed pipelines would be constructed between February 1 and August 15, a BLM-approved biologist shall revisit the raptor nest documented in 2011 within 2 weeks prior to construction to determine nest status. If the raptor nest is active, a qualified BLM-approved biologist shall monitor the nest during construction to ensure that nesting raptors would not be affected. If the biologist determines construction activities are negatively affecting nesting raptors, all activity shall be delayed until the young have fledged or until the nest is no longer active, as determined by a qualified BLM-approved biologist.

7. If surface disturbance is proposed between May 15 and July 15, a migratory bird survey shall be required and submitted with a written request for exception, prior to any surface disturbance. If vegetation removal is accomplished prior to May 15, exception may be granted, to allow work on the project during the closure period.
8. Black Hills shall provide a BLM-approved biologist who shall monitor the installation of the buried natural gas and water pipelines to ensure that special status plants are protected.

The buried pipelines shall be installed and removed outside the Naturita milkvetch flowering season (April through early June).

Fugitive dust shall be minimized as needed during installation of the buried natural gas and water pipelines through watering (without the use of magnesium chloride) where Naturita milkvetch plants are within 100 meters of the proposed route.

The pipelines shall be installed immediately adjacent to the barrow ditch of the road and on the side of the road opposite of the Naturita milkvetch plants, to avoid direct disturbance of documented plants. In some locations, the pipelines shall be installed within the road (see Map 3 – Conditions of Approval).

9. Black Hills shall construct, operate, maintain, and reclaim the buried pipelines in strict conformity with industry standards.
10. Orange exclusion fencing shall be placed on the side of the road to protect archaeological site 5ME634. Installation shall be completed prior to any construction activities. Installation and removal of the barricade shall require the presence of BLM CO Cultural Resource Use Permitted archaeological monitors. A fieldwork authorization for barricade installation shall be requested and BLM shall have 5 days to issue the authorization. A letter report confirming compliance with this Condition of Approval shall be submitted within two weeks of construction completion.
11. Vehicles shall be restricted to the existing road and no parking shall be allowed adjacent to the road except within proposed disturbance area.
12. The external boundaries of proposed surface disturbance shall be clearly flagged; in no case will activities take place outside flagged areas.
13. Noncompliance with any of the Conditions of Approval will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health or safety or to the environment.
14. Copies of these Conditions of Approval shall be kept on site during construction and maintenance activities. All construction personnel shall review the Conditions of Approval before working in the project area.
15. When saturated soil conditions exist in the project area, construction shall be halted until the authorized officer determines that soils have dried out sufficiently for construction to proceed without undue damage or erosion. All construction and travel on the road and proposed area of disturbance shall stop until soils dry if ruts

greater than 3 inches are formed by vehicles and equipment. No topsoil shall be stripped when soils are saturated with moisture or frozen below the stripping depth.

16. All trash resulting from use of this right-of-way shall be confined in a covered container, and shall be removed and hauled to an authorized disposal site. No burning of trash, trees, brush or any other material shall be allowed. Black Hills shall promptly remove and dispose of all waste caused by its activities. The term "waste" as used herein means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, ashes and equipment. No burning of trash, trees, brush, or any other material shall be allowed.
17. The buried pipelines shall be constructed in a manner that limits alteration of natural drainages and flow patterns to the greatest extent practicable. Stormwater and erosion control measures shall be properly placed, monitored and maintained throughout the life of the project.

Please contact Julia Christiansen at (970) 244-3093 for reclamation or other surface management.

STANDARD CONDITIONS OF APPROVAL

1. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by Black Hills, or any person working on their behalf, on public or Federal land shall be immediately reported to the authorized officer. Black Hills shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. Black Hills will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with Black Hills.
2. Pursuant to 43 CFR 10.4(g) Black Hills must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. 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. Black Hills or its contractor 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 activity, the operator must stop work in the area of the discovery that might further disturb such materials and immediately contact the Authorized Officer. Within five working days, the authorized officer will inform the operator as to the mitigation measures the operator will likely have to undertake before the site can be used (assuming in-place preservation is not necessary).
4. Black Hills shall notify the BLM at least 60 days prior to non-emergency activities that would cause surface disturbance. BLM will determine whether any special

resource (cultural, plants, animal, etc.) inventories, treatments, or mitigation are required. The authorized officer may require the completion of a special status species surveys by a third party contractor at the expense of Black Hills, or the BLM may choose to complete the survey. The BLM may take actions or make recommendations to protect any special status plant populations identified near or on the area of disturbance.

5. A "Notice to Proceed" condition shall be required for any non-emergency activities as defined above that would cause surface disturbance. Any request for a "Notice to Proceed" should be made to the BLM, which shall review the proposed action for consistency with resource management concerns such as wildlife, big game winter range, paleontology, threatened and endangered species, and cultural resource protection. Additional measures may be required to protect these resources.
6. Black Hills shall monitor and control those noxious weeds that may occur or be found, as listed in the booklet, Noxious Weeds of Mesa County. If chemical control is necessary, use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, the pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer. Emergency use of pesticides shall be approved in writing by the authorized officer prior to such use.
7. Black Hills shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Black Hills shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601 et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (see 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
8. Black Hills shall comply with applicable State standards for public health and safety, environmental protection and siting, construction, operation and maintenance, if these State standards are more stringent than Federal standards for similar projects.