

**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-110-2011-0082-EA

**CASEFILE/PROJECT NUMBER:** COD-033586, COD-032678, COD-053062

**PROJECT NAME:** Two Sundry Notices: Replacement Water Injection Flowlines

**LEGAL DESCRIPTION:** T. 2 N., R. 103 W., Sec. 23 and T. 2 N., R. 102 W., Sec. 33, 34, 6<sup>th</sup> PM

**APPLICANT:** Chevron USA, Inc.

**PURPOSE & NEED FOR THE ACTION:**

The purpose of the action is to provide the opportunity to transport injection fluids across 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 to transport injection fluids across BLM surface.

**Decision to be Made:** The BLM will decide whether to approve the installation, operation and maintenance of the proposed water injection lines, and if so, under what conditions.

**SCOPING, PUBLIC INVOLVEMENT, AND ISSUES:**

**Scoping:** Scoping was the primary mechanism used by the BLM to initially identify issues. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 3/22/2011. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 03/30/2011.

**Issues:** No comments were received, and no issues were identified during public scoping.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

**Background/Introduction:** Chevron USA, Inc., as the operator of the Rangely Weber Sand Unit submitted two Sundry Notices on April 18, 2011 proposing to install new flowlines and water injection lines in T. 2 N., R. 103 W., Section 23 and T. 2 N., R. 102 W., Sections 33 and 34. The

proposals indicate the lines will be installed parallel to existing pipelines at a depth of 42 inches within a typical 40 ft corridor. The lines will be placed within a 10 ft offset from the existing line with no surface disturbance outside of the existing corridors. Prior to completion of the field-wide cultural survey of the Rangely field, Chevron plans to have an archaeological monitor present for construction activities, if required.

**Proposed Action: Replacement Line 1: Sundry Notice #1 (LN Hagood Leases area; WEWP-4Way Tie-in):** Chevron proposes to install a replacement water injection line that will run approximately 3,114 ft from the West End Water Plant (WEWP) to the 4-Way injection pipeline (Table 1, see Figure 1). The injection line will parallel the existing injection line corridor. The line will consist of 10 inch schedule 40 steel with a poly liner rated at 2,240 psi. The existing buried injection line will be flushed with fresh water, capped on both ends and abandoned in place. Approximate duration of the pipeline installation will be 8 months.

**Replacement Line 2: Sundry Notice #3 (Carney Leases area; DRA East Water Injection Line):** Chevron proposes to install a replacement water injection line that will run approximately 6,650 ft, of which 2,675 ft is on BLM surface (Table 1, see Figure 2). The injection line will parallel the existing injection line corridor. The line will consist of 10 inch Sch 40 steel with a poly liner rated at 2,240 psi. The existing buried injection line will be flushed with fresh water, capped on both ends and abandoned in place. Approximate duration of the pipeline installation will be 6 months, proposing to begin installation in late August.

**Table 1.** Disturbance summary table.

Sundry Notice	Name	Pipeline Type	Length (ft) x 40 ft typical ROW	Acres Disturbed <sup>a</sup>
#1	WEWP-4Way Tie-in	Water Injection	3,114	2.9
#3	DRA East Water Injection Line	Water Injection	6,650	6.1 <sup>b</sup>
<b>Total</b>				<b>9.0</b>

- (a) Estimated acres disturbed based on a typical 40 ft ROW; however, disturbance will remain wholly within the pre-existing ROW disturbance boundaries.
- (b) Total includes both BLM and fee surface. When considering only federal surface, 2.5 acres would be affected.

**No Action Alternative:** All Sundry Notices would be denied. No injection lines or flowlines would be installed or replaced.

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

**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 (White River ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-5

Decision Language: “Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values.”

## **AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES**

**Standards for Public Land Health:** In January 1997, the Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, special status 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 (EA). These findings are located in specific elements listed below.

**Cumulative Effects Analysis Assumptions:** Cumulative effects are defined in the Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7) as “...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Table 2 lists the past, present, and reasonably foreseeable future actions within the area that might be affected by the Proposed Action; for this project the area considered was the Natural Resources Conservation Service (NRCS) 5<sup>th</sup> Level Watershed. However, the geographic scope used for analysis may vary for each cumulative effects issue and is described in the Affected Environment section for each resource.

**Table 2.** Past, present, and reasonably foreseeable actions.

<b>Action Description</b>	<b>STATUS</b>		
	<b>Past</b>	<b>Present</b>	<b>Future</b>
Livestock Grazing	X	X	X
Recreation	X	X	X
Invasive Weed Inventory and Treatments	X	X	X
Range Improvement Projects : Water Developments Fences & Cattleguards	X	X	X
Wildfire and Emergency Stabilization and Rehabilitation	X	X	X
Wind Energy Met Towers			
Oil and Gas Development: Well Pads Access Roads Pipelines Gas Plants Facilities	X	X	X
Power Lines	X	X	X
Oil Shale			
Seismic	X	X	X

Action Description	STATUS		
	Past	Present	Future
Vegetation Treatments	X	X	X

**Affected Resources:**

The CEQ Regulations state that NEPA documents “must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail” (40 CFR 1500.1(b)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an environmental assessment (EA). Issues will be analyzed if: 1) an analysis of the issue is necessary to make a reasoned choice between alternatives, or 2) if the issue is associated with a significant direct, indirect, or cumulative impact, or where analysis is necessary to determine the significance of the impacts. Table 3 lists the resources considered and the determination as to whether they require additional analysis.

**Table 3.** Resources and determination of need for further analysis.

Determination <sup>1</sup>	Resource	Rationale for Determination
<b>Physical Resources</b>		
NI	Air Quality	The Proposed Action will replace existing pipelines and the use of these pipelines will remain the same. Construction activities are not anticipated to generate emissions or dust to a degree that would be measurable, although they may generate localized and visible dust during dry or windy conditions.
NI	Geology and Minerals	Replacement of these existing lines within the existing pipeline corridor will not impact geology or minerals.
PI	Soil Resources*	See discussion below.
PI	Surface and Ground Water Quality*	See discussion below.
<b>Biological Resources</b>		
NP	Wetlands and Riparian Zones*	The nearest system which supports riparian vegetation is the White River, which is separated from the project area by over one mile of ephemeral channel.
PI	Vegetation*	See discussion below.
PI	Invasive, Non-native Species	See discussion below.
PI	Special Status Animal Species*	See discussion below.
NP	Special Status Plant Species*	There are no special status plant species associated with the Proposed Action.
NI	Migratory Birds	Both flowlines follow existing pipeline rights-of-way or roadways. Much of the habitat involved is degraded/disturbed and does not provide high quality nesting or forage resources for migratory birds.
NP	Aquatic Wildlife*	The nearest system which supports higher-order aquatic wildlife is the White River, which is separated from the project area by over one mile of ephemeral channel.
NI	Terrestrial Wildlife*	This heavily developed portion of Coal Oil Basin is inhabited year-round by a small resident herd of pronghorn which are acclimated to routine oil and gas production activities. The proposed waterline and injection line replacements will be located adjacent to existing

<b>Determination<sup>1</sup></b>	<b>Resource</b>	<b>Rationale for Determination</b>
		corridors or roadways to minimize disturbance. Although there are no known nests within several miles of the pipeline corridor, raptors may opportunistically forage throughout the project area.
NP	Wild Horses	The Proposed Action is not located within the Piceance-East Douglas Herd Management Area (HMA). The Proposed Action would have no impacts on the wild horse herd within the HMA.
<b>Heritage Resources and the Human Environment</b>		
PI	Cultural Resources	See discussion below.
PI	Paleontological Resources	See discussion below.
NP	Native American Religious Concerns	The Proposed Action would not influence native American religious concerns.
PI	Visual Resources	See discussion below.
PI	Hazardous or Solid Wastes	See discussion below.
NI	Fire Management	The Proposed Action would not affect the management of fire within the B3 Fire Management polygon.
NI	Social and Economic Conditions	There would no substantial changes to local social or economic conditions.
NP	Environmental Justice	According to the most recent Census Bureau statistics (2000), there are no minority or low income populations within the WRFO.
<b>Resource Uses</b>		
NP	Forest Management	The Proposed Action would have not impact forest management.
NI	Rangeland Management	The area of the Proposed Action is located within the Artesia grazing allotment. This allotment is authorized for winter sheep use. This area has previously experienced a high level of disturbance from oil and gas activity. This new disturbance is minimal in size and considered short-term disturbance while the pipelines are being installed. A slight positive benefit could result from successful reclamation.
NI	Floodplains, Hydrology, and Water Rights	No perennial surface waters are expected to be impacted by this project. The proposed pipeline replacement will be accomplished in ephemeral tributaries to the White River.
PI	Realty Authorizations	See discussion below.
NI	Recreation	No impacts to existing recreation opportunities are expected.
NI	Access and Transportation	Impacts to existing transportation routes is not anticipated.
NP	Prime and Unique Farmlands	There are no Prime and Unique Farmlands within the project area.
<b>Special Designations</b>		
NP	Areas of Critical Environmental Concern	There are no areas of critical concern nearby the project area.
NP	Wilderness	There are no Wilderness Study Areas (WSAs) in the project area.

Determination <sup>1</sup>	Resource	Rationale for Determination
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers in the WRFO.
NP	Scenic Byways	There are no Scenic Byways within the project area.

<sup>1</sup> NP = Not present in the area impacted by the Proposed Action or Alternatives. NI = Present, but not affected to a degree that detailed analysis is required. PI = Present with potential for impact analyzed in detail in the EA.

\* Public Land Health Standard

## SOIL RESOURCES

*Affected Environment:* The classification of soils that may be impacted by the project within 30 meters of the proposed pipelines are shown in Table 4. There are no fragile soils or lands prone to landslides on Federal lands that will be impacted by this project. All the soils with the exception of Billings-Torrifluents complex soils are considered saline with conductivity values above 16 milliohms. The Billings-Torrifluents complex soils contain small strongly saline and alkaline spots where salts have been concentrated due to surface water flow. These soils are derived from Mancos shales and the suitability of these units for rangeland seeding is poor, making reclamation difficult.

**Table 4.** Soil Classifications within 30 Meters of the Project

Soil Classification	Range Site Description	Potentially Impacted Acres
Billings silty clay loam, 0-5% slopes	Alkaline Slopes	8
Chipeta silty clay loam, 3-25% slopes	Clayey Salt Desert	33
Billings-Torrifluents complex, gullied, 0-5% slopes	Alkaline Slopes	4

### *Environmental Consequences of the Proposed Action:*

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

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

The new pipelines will be installed with a 10 ft offset from the old lines and the old lines will be abandoned in place. Typical soil handling procedures for pipeline replacement is to use an excavator to dig a trench with a first out, last in approach. Soil handling procedures may

concentrate saline soils near the surface and make reclamation difficult and unsuccessful. Salt accumulation on the surface can be observed and is an indication of saline soil conditions that may make reclamation unsuccessful. Mitigation and reclamation efforts for saline soils described in this document and Attachment 1 should assure successful reclamation.

Indirect impacts could include the contamination of surface and subsurface soils due to unintentional leaks or spills and affect the productivity of soils. The pipeline replacement should reduce this risk since the current pipelines are beyond their operational life. Typically contaminated soils would be removed and disposed of in a permitted facility or would be bioremediated in place.

Cumulative Effects: Construction and installation of each pipeline is occurring in an historic oil field that has a high density of pipelines and active pads associated with the continued recovery of the oil reserves. This oil development has occurred mostly within easily erodible and saline mancos shale outcrops. At this stage of recovery, produced water is injected into the producing zones to enhance the oil recovery. The construction and installation of each pipeline supports these efforts.

These sensitive soils have been substantially disturbed during this oil development and reclamation efforts have been moderately successful as compared to undisturbed native vegetation, which is sparse. Without disturbance, these zones would still be highly erodible, have relatively low productivity, and be saline.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be an increased potential for spills or leaks due to the continued use of the existing pipelines. The pipelines would likely need periodic repair that would include impacts similar to those described for pipeline replacement for the sections that need repair.

Cumulative Effects: Same as those described for the Proposed Action.

*Mitigation:*

1. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer (AO).
2. In order to protect Public Land Health Standards for soils, erosion features such as rilling, gullyng, piping, and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO, and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. If salt is observed on the surface of soils during reclamation activities, the AO will be notified and a plan will be developed with approval of the BLM to improve reclamation on the site.

4. Soil storage areas will be clearly marked to restrict vehicle and construction equipment use to only what is necessary to move the soil.
5. 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.
6. 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 vegetation (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.

*Finding on the Public Land Health Standard #1 for Upland Soils:* With mitigation this action is unlikely to reduce the productivity of soils impacted by surface disturbing activities.

## WATER QUALITY, SURFACE AND GROUND

*Affected Environment:* This project is in and the headwaters of an unnamed ephemeral tributary to the White River. Table 5 describes water segments that may be impacted by this project.

**Table 5.** Water Quality Classification Table\*

Segment	Segment Name	Use Protected	Protected Beneficial Uses		
			Aquatic Life	Recreation	Agriculture
21	Mainstem White River from the confluence with Douglas Creek to the Colorado/Utah Border	No	Warm 1	Existing Primary Contact Use Recreation	Yes
22	All tributaries to the Mainstem White River from the confluence with Douglas Creek to the Colorado/Utah Border	No	Warm 2	Primary 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

Segment 22 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. Alternatively the Warm 1 designation for the mainstem of the White River means that aquatic life is supported in this segment. These segments also have standards that are

protective of recreation and agriculture. Segment 21 is protected for existing primary use and is typically used for recreational boating.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Clearing, grading, and soil stockpiling activities associated with the Proposed Action would alter overland flow and natural groundwater recharge patterns. Potential impacts include concentration of salts in the effective rootzone of reclamation plants and 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 will be deposited and stored in minor drainages where it would be moved into White River during heavy convection storms. Surface erosion for this project is most likely during the construction phase of the project and would be mediated using BMPs for stormwater as discussed in the soils section.

The pipeline route includes two perpendicular crossings of an unnamed ephemeral draws (one for each pipeline segment). The pipeline should be placed five feet below the surface of the active channel (meaning the scour depth that could occur during a flood event). The operator does not specify the depth of this section of the pipeline. If the pipeline is not set deep enough it is likely to be exposed during a flood event at some point in the future. Requiring at least five feet of depth as mitigation will likely avoid this impact.

Cumulative Effects: This pipeline replacement is occurring in an historic oil field that has a high density of pipelines and active pads associated with the continued recovery of the oil reserves. This oil development has occurred mostly within easily erodible and saline Mancos shale outcrops. At this stage of recovery, produced water is injected into the producing zones to enhance oil recovery.

Mancos shale outcrops are a major source of salinity and selenium to ground and surface waters in the Colorado River system. These solutes become available for transport to surface waters due to both water and wind erosion due to natural processes and surface disturbance that expose bare soil to these forces.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be an increased potential for spills or leaks due to the continued use of the existing pipelines. The pipelines would likely need periodic repair that would include impacts similar to those described for pipeline replacement for the sections that need repair.

Cumulative Effects: Same as those described for the Action Alternative.

*Mitigation:*

1. The pipeline will be placed at a minimum of five feet below the current bed of the ephemeral drainage that needs to be crossed to hook into the existing waterline as shown in the Project Diagram.

*Finding on the Public Land Health Standard #5 for Water Quality:* It is unlikely that construction of the pipeline corridors and the installation of the pipelines would result in an exceedence of state water quality standards.

## **VEGETATION**

*Affected Environment:* The proposed pipelines would be placed within the clayey salt desert and alkaline slope ecological sites within Coal Oil Basin. The potential natural community (PNC) for clayey salt desert consists of mat saltbush, green rabbitbrush, bottlebrush squirreltail, Indian ricegrass, galleta and buckwheat. The PNC for alkaline slopes consists of greasewood, gardner saltbush, Indian ricegrass, bottlebrush squirreltail, big sagebrush, and winterfat. The project area would currently be classified as early to mid seral and has a component of invasive annuals including cheatgrass. Approximately 1 acre of the 5.4 acres proposed to be disturbed are dominated by early seral annuals and not classified as meeting land health standards.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Installation of the pipelines would require complete removal of vegetation on 5.4 acres (BLM surface). Disturbance of soils where non-native/invasive annuals are present has the potential to increase the density of these undesirable species. In areas of soil and vegetative disturbance, annuals will often be the first to re-establish on the site and will out-compete native grasses and forbs resulting in a mono-culture of non-native annuals. All disturbance associated with the pipelines is considered short-term and proper reclamation using seeded species adapted to the site could pre-empt the establishment of invasive annuals and leave the site with a higher density of native perennials than before the disturbance.

Cumulative Effects: Past and current oil and gas activities in the area have created a large amount of vegetation disturbance in the area. Some of the reclamation has been successful as far as establishing ground cover with cool-season perennial grasses; however, much of the reclamation has been done with non-native perennial grasses such as crested wheatgrass and Russian wildrye that have prevented other native perennials from establishing. Other areas have seen an increase in weedy species as a result of previous disturbance. It is anticipated that there will continue to be disturbance associated with oil and gas in this vicinity which could lead to a further increase in invasive/noxious weeds or further degradation to vegetative communities. It is important that reclamation efforts which include seeding and integrated weed management be used to minimize the expansion of weed populations and continue to improve vegetative communities to meet land health standards. Assuming successful reclamation, cumulative impacts in the future for vegetation should not exceed that analyzed in the 1996 White River

Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement  
Environmental Impact Statement (EIS).

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There will be no disturbance to vegetative communities located in the proposed project area.

*Mitigation:*

1. Seed all disturbed areas with Seed Mix #1 listed in Table 6 using the seeding window described in Attachment 1. Note that seed rates are in pounds of pure live seed (PLS) and they are shown as the drill seed rates. Broadcast seed rates will be doubled and harrowed into the soil surface.

**Table 6:** Seed Mix #1.

Variety	Common Name	Scientific Name	Rate (lbs. PLS/acre)
Viva Florets	Galleta Grass	<i>Pleuraphis jamesii</i>	3
Rimrock	Indian Ricegrass	<i>Achnatherum hymenoides</i>	3
Toe Jam Creek	Bottlebrush Squirreltail	<i>Elymus elymoides</i>	2.5
Rosana	Western Wheatgrass	<i>Pascopyrum smithii</i>	4
	Scarlet Globemallow	<i>Sphaeralcea coccinea</i>	0.25
	Annual Sunflower	<i>Helianthus annus</i>	2.5
	Mat Saltbush	<i>Atriplex corrugata</i>	2

*Finding on the Public Land Health Standard #3 for Plant and Animal Communities:* The area of the Proposed Action is primarily meeting land health standards. In general, the project area would be classified as mid-seral. Approximately 1 acre of the 5.4 acres (BLM surface) proposed to be disturbed would be classified as early seral and are not meeting land health standards as a result of the high density of cheatgrass. A positive benefit could be derived in these areas is reclamation using the seed mix above is successful.

## INVASIVE, NON-NATIVE SPECIES

*Affected Environment:* This project is proposed in the Coal Oil Basin area northwest of Rangely, Colorado. Noxious weeds that are present within the immediate vicinity of the Proposed Action are cheatgrass (*Bromus tectorum*) and halogeton (*Halogeton glomeratus*). Both of these species are classified as List C species on the state of Colorado noxious weed list. Cheatgrass is a non-native annual that aggressively invades areas of disturbance and often times becomes the dominate vegetation in a community. Halogeton is another non-native annual that readily invades areas of disturbance. Halogeton, while invasive, is not highly competitive and

will often be out-competed if areas of disturbance are reclaimed and seeded with species adapted to the site.

There are several other noxious weeds found within the White River corridor to the south of the proposed project. Russian-olive (*Elaeagnus angustifolia*), salt cedar (*Tamarix ramosissima*), hoary cress (*Cardaria draba*), bull thistle (*Cirsium vulgare*), and Canada thistle (*Cirsium arvense*) are all list B species known to occur along the White River near the proposed project.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Implementation of the Proposed Action will require disturbance of soil and vegetation on 5.4 acres (BLM surface). Creating soil disturbance does increase the potential for invasive species to establish and dominate the site upon completion of the project. Since halogeton and cheatgrass are already present in the project area, it is anticipated without successful reclamation that they will become dominate on the site. Proper reclamation combining the use of herbicides and seeding will decrease the likelihood of noxious weeds dominating the site and could improve the quality of vegetation along the pipeline corridors.

There is also the potential for weed seeds and propogules to be transported onto the site on equipment used during pipeline installation. This could lead to the establishment of new weed species establishing on the area that are not currently on the project site. Early detection and rapid response (EDRR) will be critical to keep these new species from establishing and moving to the adjacent plant communities.

Cumulative Effects: Past and current oil and gas activities in the area have created a large amount of soil and vegetation disturbance in the area. Some of the reclamation has been successful at preventing weed establishment while other areas have seen an increase in weedy species as a result of previous disturbance. It is anticipated that there will continue to be disturbance associated with oil and gas in this vicinity which could lead to a further increase in invasive/noxious weeds. It is important that reclamation efforts which include seeding and integrated weed management be used to minimize the expansion of weed populations.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: The No Action Alternative will result in no soil and vegetation disturbance minimizing the potential for weeds to spread or be brought onto the site by equipment.

*Mitigation:*

1. For weed monitoring commitments, see Attachment 1.
2. The use of herbicides will be under the supervision of an Environmental Protection Agency (EPA) certified applicator.
3. All equipment used for the installation of the pipeline will be washed prior to being brought onto BLM lands.

## **THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES**

*Affected Environment:* The project area is broadly encompassed by white-tailed prairie dog habitat. White-tailed prairie dogs, a BLM sensitive species, and their burrow systems are important components of burrowing owl habitat, as well as potential habitat for reintroduced populations of black-footed ferret. Burrowing owls, also a BLM sensitive species are uncommon in this Resource Area. These birds return to occupy a maintained burrow system in early April and begin nesting soon after. Most birds have left the area by September.

Under the auspices of a non-essential, experimental population rule, black-footed ferrets have been released annually in Coyote Basin (8 miles southwest) and Wolf Creek (13 miles northeast) of Rangely Oil Field since 1999 and 2001, respectively. The rule applies to any ferrets that may occupy or eventually be released in northwest Colorado and northeast Utah. Although there is no direct continuity between Coyote Basin or Wolf Creek and the project site (i.e., lesser physical barriers and habitats unoccupied by prairie dog), there is potential for ferrets to colonize and successfully breed in the Rangely Oil Field. Ferrets are wholly reliant on prairie dogs for food and shelter. Ferret breeding activities begin in early March, with birthing beginning in early May. Young ferrets generally begin to emerge by mid-July. There have been no verified sightings of ferrets, nor any known reproduction occurring in the Rangely Oil Field.

Brewer's sparrow, a BLM sensitive species, is common throughout the oil field where appropriate habitat exists (i.e., sagebrush communities). This species typically returns in late-April and May and begins nesting in earnest in the latter part of May. Young are fledged by mid to late July.

### *Environmental Consequences of the Proposed Action:*

**Direct and Indirect Effects:** The Proposed Action would directly remove approximately 5.4 acres (BLM surface) of predominately disturbed (mustard, halogeton etc.) communities contained in the existing right-of-way. Pipeline replacement is scheduled to begin in mid-August thereby effectively avoiding the reproductive period for all species potentially involved (i.e., prairie dog, Brewer's sparrow etc.).

This project would have no short or long term influence on prairie dog abundance or distribution by itself or as habitat for black-footed ferret or burrowing owl. It is highly unlikely that any subsurface disturbance associated with this Proposed Action would intersect a prairie dog burrow system occupied by a ferret.

The nearest known burrowing owl nest is located approximately 1.3 miles from the project area. Pipeline installation would have no conceivable influence on nesting burrowing owls or important habitat.

The vegetation communities that are involved with the Proposed Action are predominately degraded or disturbed types which typically do not provide suitable nesting habitat for Brewer's sparrow. Any involvement with sagebrush communities would be nominal and as such would have negligible influence on local populations of Brewer's sparrow.

Prompt and effective pipeline reclamation would provide an herbaceous component that would benefit white-tailed prairie dogs, their associates, and other resident wildlife.

Cumulative Effects: The Proposed Action is not anticipated to add substantially to current or proposed disturbances in the area. The removal of roughly 5.4 acres (BLM surface) of predominately degraded habitats within existing areas of disturbance is not expected to have any measurable influence on special status species.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be no potential influence on special status species in the case of the No Action Alternative.

Cumulative Effects: There would be no contribution to previous, existing or future disturbances under the No Action Alternative.

*Mitigation:* None.

*Finding on the Public Land Health Standard #4 for Special Status Species:* Public Land Health Standards for those special status species associated with white-tailed prairie dogs, including black-footed ferret and burrowing owl or Brewer's sparrow, in the Rangely Oil Field are generally being met. As conditioned, this project would have no adverse influence on populations, available extent of suitable habitat, or the reproductive activities of these four species. Thus, there would be no influence on the continued meeting of the land health standard. Small incremental gains in perennial grass cover associated with successful reclamation and subsurface tillage associated with flowline installation may be expected to bolster local populations of prairie dogs and potentially benefit individual burrowing owl and black-footed ferret—effects consistent with continued meeting of the Land Health Standards.

## **CULTURAL RESOURCES**

*Affected Environment:* Sundry Notice #1 (LN Hagood Leases area; WEWP-4way tie in): The proposed pipeline route has been inventoried at the Class III (100 percent pedestrian) level (Davenport 2011b, Compliance Dated 5/5/2011) with no new cultural resources identified in the inventoried area. There are no cultural resources currently identified within 1,000 ft of the proposed pipeline.

Sundry Notice #3 (Carney leases area; DRA East Water Injection Line): The proposed pipeline route has been inventoried at the Class III (100 percent pedestrian) level (Davenport 2011a Compliance Dated 5/5/2011) with no new cultural resources identified in the inventoried area. There are no cultural resources currently identified within 1,000 ft of the proposed pipeline.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Sundry Notice #1 (LN Hagood Leases area; WEWP-4way tie in) and Sundry Notice #3 (Carney leases area; DRA East Water Injection Line): The proposed pipelines

would not impact any known cultural resources. While the probability for buried remains in the proposed pipeline corridor exists, it is extremely unlikely.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be no new impacts to cultural resources under the No Action Alternative.

*Mitigation:*

1. The operator is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
2. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. The operator will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. The operator, under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.
3. Pursuant to 43 CFR 10.4(g), the operator must notify the AO, by telephone and 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), the operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

## **PALEONTOLOGY**

*Affected Environment:* Sundry Notice #1 (LN Hagood Leases area; WEWP-4way Tie-in) and Sundry Notice #3 (Carney Leases area; DRA East Water Injection Line): The proposed pipelines are in an area generally mapped as the Mancos Shale (Tweto 1979) which is classified by the BLM, WRFO as a PFYC 3 formation meaning its fossil bearing potential in this area is unclear. In other areas the Mancos shale is known to produce a variety of marine vertebrate fossils (Armstrong and Wolny 1979).

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: Sundry Notice #1 (LN Hagood Leases area; WEWP-4way tie in) and Sundry Notice #3 (Carney leases area; DRA East Water Injection Line): There is a

potential to impact scientifically noteworthy fossil resources during trenching for the proposed pipelines. However, the likelihood of impacting fossils is uncertain at this time.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: There would be no new impacts to paleontological resources under the No Action Alternative.

*Mitigation:*

1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
2. If any paleontological resources are discovered as a result of operations under this authorization, the operator or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.
3. Any excavations into the underlying native sedimentary stone must be monitored by a permitted paleontologist. The monitoring paleontologist must be present before the start of excavations that may impact bedrock.

## **VISUAL RESOURCES**

*Affected Environment:* The Proposed Action would be located in an area with a Visual Resource Management (VRM) IV classification. The objective of this class is to provide for management activities which allow for major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements. The area of the Proposed Action includes highly modified visual character from previous energy and industrial development.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects:

The proposed pipeline construction would require the removal of the vegetation which would create a contrast. The contrast would be 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. The Proposed Action would not dominate the view nor require major modification of the existing character of the landscape. The level of change to the characteristic landscape would be low and the objectives of the VRM IV classification would be retained.

Cumulative Effects:

Combined with other oil and gas and industrial developments in the area, the Proposed Action will marginally contribute to a degraded visual character. However the level of change is consistent with the existing VRM Class IV classification of the area.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects:

There would be no additional ground disturbance evident to the casual observer.

Cumulative Effects: None.

*Mitigation:* None.

## **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 wastes. Fuel spills and localized contamination of the site from other hazardous material spills pose the greatest risk for harm to the environment during oil and gas operations.

Direct and Indirect Effects: The proposed activities will use regulated materials and will generate some solid wastes. The potential for direct and indirect effects to the environment includes 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.

Cumulative Effects: The potential for cumulative effects to the environment are unknown; however, it is reasonable to assume that contamination points within the project area and contamination of sites outside of the project area, but in close proximity, may cumulatively result in localized contamination that may affect ground water quality and future seed germination success.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: The potential for direct and indirect effects to the environment for the No Action Alternative would most likely be immeasurable, though risks associated with spills of fuel, oil and/or hazardous substances during oil and gas operations in close proximity to the proposed project area would most likely remain constant. Accidents and mechanical breakdown of machinery adjacent to the proposed project area are also possible for the No Action Alternative.

Cumulative Effects: The potential for cumulative additive and cumulative multiplicative effects to the environment for the No Action Alternative would most likely be immeasurable, though risks associated with spills of fuel, oil and/or hazardous substances during oil and gas operations in close proximity to the proposed project area would most likely remain constant. Accidents and mechanical breakdown of machinery adjacent to the proposed project area are also possible for the No Action Alternative.

*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.

## **REALTY AUTHORIZATIONS**

*Affected Environment:* The Proposed Action is located in a highly developed area adjacent to Highway 64. The pipelines are located on-unit, (Rangely Weber Sand Unit), therefore no right-of-way is needed. Existing rights-of-way include power lines authorized to Moon Lake Electric Association, Chevron Hagood Gas Plant, telephone lines authorized to Qwest Corporation, cable lines authorized to Centurytel of Eagle, roads authorized to Rio Mesa Resources, Inc., Bluebell Oil Company, and Colorado Department of Transportation (Hwy 64), and a pipeline authorized to Chevron Pipeline Company.

*Environmental Consequences of the Proposed Action:*

Direct and Indirect Effects: A realty right-of-way will not be issued for the pipelines due to being located on-unit. To avoid impacts to existing realty rights-of-way, Chevron would need to coordinate with right-of-way holders prior to any construction activity.

Cumulative Effects: Combined with oil and gas and industrial development in the area, the Proposed Action will have minimal effect to the area. This pipeline is a replacement to an existing line.

*Environmental Consequences of the No Action Alternative:*

Direct and Indirect Effects: None.

Cumulative Effects: None.

*Mitigation:*

1. To avoid impacts to existing rights-of-way, Chevron would need to coordinate with right-of-way holders prior to any construction activity.

**REFERENCES CITED**

Armstrong, Harley J., and David G. Wolny

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

Davenport, Barbara

2011a Class III Cultural Resources Inventory for the Proposed DRA East Water Injection Pipeline (6650 feet) in Rio Blanco County, Colorado for Chevron, USA, Inc., Grand River Institute, Grand Junction, Colorado. (11-11-13)

2011b Class III Cultural Resources Inventory for the Proposed 4-Way to WEWP Pipeline Replacement (3150 feet) in Rio Blanco County, Colorado for Chevron, USA, Inc. Grand River Institute, Grand Junction, Colorado. (11-11-12)

Tweto, Ogden

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

**TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED:** None.

**INTERDISCIPLINARY REVIEW:**

Name	Title	Area of Responsibility	Date Signed
Bob Lange	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	8/10/2011
Zoe Miller	Ecologist	Areas of Critical Environmental Concern; Special Status Plant Species	7/20/2011
Michael Selle	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	7/12/2011
Matthew Dupire	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	8/08/2011
Lisa Belmonte	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	8/02/2011
Brett Smithers	Natural Resource Specialist	Project Leader, Hazardous or Solid Wastes	8/12/2011
Chad Schneckenburger	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	8/05/2011
Jim Michels	Supervisory NRS	Forest Management	8/02/2011

<b>Name</b>	<b>Title</b>	<b>Area of Responsibility</b>	<b>Date Signed</b>
Garner Harris	Zone Fire Management Officer	Fire Management	8/12/2011
Paul Daggett	Mining Engineer	Geology and Minerals	8/05/2011
Janet Doll	Realty Specialist	Realty	8/09/2011
Melissa J. Kindall	Range Technician	Wild Horse Management	7/29/2011
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	8/22/2011

**ATTACHMENTS:**

Attachment 1: Surface Use Plan of Operations, Plan for Surface Reclamation of Pipeline Right-of-Ways.

Figure 1: Project Map- SN#1: LN Hagood Lease Area; WEWP-4Way Tie-in.

Figure 2: Project Map- SN#3: Carney Lease Area; DRA East Water Injection Line.

## Attachment 1

### Surface Use Plan of Operations Plan for Surface Reclamation of Pipeline right of ways.

#### I. Reclamation Objectives:

The long-term objective of final reclamation is to return the land to a condition approximating that which existed prior to disturbance. This includes restoration of the landform, hydrologic systems, visual resources, wildlife habitats, and establishment of desired vegetative community. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

#### II. Reclamation Performance Standards

The following reclamation performance standards will be met:

Reclamation – Includes disturbed areas where the original landform and a natural vegetative community have been restored and it is anticipated the site will not be redisturbed for future development.

- Reclamation will be judged successful when the BLM authorized officer determines that:
  - The original contour, or one which blends with the surrounding landform, has been restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors.
  - A self-sustaining, vigorous, diverse, desired plant community is established on the site, with a density sufficient to control erosion and invasion by non-native plants and to reestablish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.
  - In agricultural areas, irrigation systems and soil conditions are reestablished in such a way as to ensure successful cultivation and harvesting of crops.
  - Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gulying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.
  - The site is free of State- or county-listed noxious weeds, oil field debris and equipment, and contaminated soil. Invasive, non-native, and undesirable weeds are controlled.

### III. Reclamation Actions (Minimum)

The following minimum reclamation actions will be taken to ensure that the reclamation objectives and standards are met. It may be necessary to take additional reclamation actions beyond the minimum in order to achieve the Reclamation Standards.

#### Reclamation - General

##### Notification:

- The BLM WRFO *designated Natural Resource Specialist* be notified at least 24 hours prior to commencement of any reclamation operations.

##### Vegetation Clearing:

- Grass, forbs, and small woody vegetation, such as sagebrush will be excavated as the topsoil is removed.
- Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading.

##### Topsoil Management:

- Operations will disturb the minimum amount of surface area necessary to conduct safe and efficient operations.
- Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top [six (6)] inches of soil material, will be stripped and stockpiled. Topsoil will be clearly segregated and stored separately from subsoils.
- On sites where there is not at least an average of 6 inches of topsoil across the site available for stockpiling, soil amendments will be used to augment the available topsoil and improve plant germination and growth. Soil amendments will be [determined as part of the reclamation pre-assessment, and] agreed to by both the operator and the BLM prior to disturbing the site.
- Earthwork for reclamation will be completed within 6 months of surface work unless a delay is approved *in writing* by the BLM authorized officer.
- Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment or so dry that dust clouds greater than 30 feet tall are created. If such equipment creates ruts in excess of three (3) inches deep, the soil will be deemed too wet.
- No major depressions will be left that would trap water and cause ponding unless the intended purpose is to trap runoff and sediment.

##### Seeding:

- Seedbed Preparation. Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will

be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4 - 6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration .

- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM (shown below) to meet reclamation standards will be used. The following seed mix and rates will be used on all disturbed surfaces, including pipelines and road cut & fill slopes:

Kind: ALKALINE SLOPES/CLAYEY SALTDESERT MIX			
Lot: 2139546			
Kind & Variety:	Pure%	Germ%	Origin:
WESTERN W/G, ARRIBA	23.87	95	WA
PUBESCENT W/G, LUNA	23.14	98	SD
CRESTED W/G, NORDAN	19.33	88	CAN
RUSSIAN WILD RYEGRASS, VINALL	17.72	96	CAN
ANNUAL SUNFLOWER	12.32	92	CO

Crop: .71% Inert: 2.83% Weed: .09% Net Wt: 35.3#(32PLS#) 2/AC

Noxious Weed: None Found Test Date: 11/08

REMARKS: WILLSON SUPPLY  
JOB CHEVRON RANGLEY  
ARKANSAS VALLEY SEED, 4333 HWY 66, LONGMONT CO 80504

- The application rate shown in the table is based on 50 pure live seeds (PLS) per square foot, drill-seeded to no greater a depth than 0.25 inch. {*However, shrub species will be seeded during the winter on the ground surface or preferably on top of snow*}. In areas that will not be drill-seeded, the seed mix will be drop seeded or broadcast-seeded on surface roughened sites at twice the application rate shown in the table. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.
- No seeding will occur from March 15 to September 1. Fall seeding is preferred and will be conducted after September 1 and prior to ground freezing. Shrub species will be

seeded separately and will be seeded during the winter. Spring seeding is less desirable and will be conducted after the frost leaves the ground and no later than March 15.

#### Erosion Control and Mulching:

- Where applicable, the mitigation techniques such as surface roughening and mulching will be used to keep water on site, thereby enhancing re-vegetation of the site and controlling erosion and runoff.
- All erosion control devices and materials will be installed and maintained to be fully functional until revegetation is determined successful by the BLM.
- Silt fencing, waddles, hay bales, and other erosion control devices will be used on were necessary to prevent soil movement from water erosion.
- Mulch will be used if necessary to control wind and water erosion, create vegetation micro-sites, and retain soil moisture on site. Mulches may include native grass hay, small-grain straw, wood fiber, live mulch, cotton, jute, or synthetic netting. Mulch will be certified free of noxious or invasive weed seeds and free from mold and fungi.
- If loose straw or hay mulch is used, it will be crimped into the soil to prevent blowing.

#### Management of Invasive, Noxious, and Undesirable Species:

- All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species.
- An intensive and documented weed monitoring and control program will be implemented prior to site preparation for planting and will continue until final reclamation is approved by the BLM.
- Each site where the BLM has not approved interim or final reclamation success will be monitored annually to determine the presence of any invasive, noxious, and undesirable species. Invasive, noxious, and undesirable species that have been identified during monitoring will be promptly treated and controlled, prior to the production of seed heads. A Pesticide Use Proposal (PUP) will be submitted to the BLM for approval prior to the use of herbicides.

#### Final Reclamation Procedures - Specific

- All disturbed areas, including roads, pipeline right of ways will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re salvaged topsoil will be respread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut and fill slopes.
- Stormwater management structures and drainage features (i.e. culverts and ditches) will only be installed when absolutely necessary to prevent erosion of fill material. Stormwater management structures and drainage features are not permanent features and

will be removed and reseeded when the rest of the site is successfully revegetated and stabilized.

- To ensure timely revegetation, the pad will be fenced to the BLM's standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4<sup>th</sup> Edition, or will be fenced with operational electric fencing.
- Final abandonment of pipelines and flowlines will involve flushing and properly disposing of any fluids in the lines. All surface lines and any lines that are buried close to the surface that may become exposed in the foreseeable future due to water or wind erosion, soil movement, or anticipated subsequent use, must be removed. Deeply buried lines may remain in place unless otherwise directed by the authorized officer.

#### Reclamation Monitoring and Final Abandonment Approval

- Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical and are maintained during the life of the permit.
- The designated WRFO Natural Resource Specialist will be notified via email or by phone 24 hours prior to beginning all reclamation activities associated with this project. Reclamation activities may include, but are not limited to, seed bed preparation that requires disturbance of surface soils, seeding, constructing exclosures (e.g., fences) to exclude livestock from reclaimed areas.
- All seed tags will be submitted via Sundry Notice to the designated Natural Resource Specialist within 14 calendar days from the time the seeding activities have ended. The sundry will include the purpose of the seeding activity (i.e., seeding well pad cut and fill slopes, seeding pipeline corridor, etc.). In addition, the SN will include the well or well pad number associated with the seeding activity, if applicable, the name of the contractor that performed the work, his or her phone number, the method used to apply the seed (e.g., broadcast, hydro-seeded, drilled), whether the seeding activity represents interim or final reclamation, an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.
- The operator will meet with the WRFO reclamation staff in March or April of each calendar year and present a comprehensive work plan. The purpose of the plan is to provide information pertaining to reclamation activities that are expected to occur during the current growing season. The operator will also provide a map that shows all reclamation sites where some form of reclamation activity is expected to occur during the current growing season.
- A Reclamation Status Report will be submitted electronically via email and as a hard-copy to WRFO Reclamation Coordinator. The hardcopy will be submitted to:

BLM, White River Field Office  
220 East Market Street  
Meeker, Colorado 81641  
Attn: Reclamation Coordinator

The Reclamation Status Report will be submitted annually for all actions that require disturbance of surface soils on BLM-administered lands as a result of the Proposed Action. Actions may include, but are not limited to, well pad and road construction, construction of ancillary facilities, or power line and pipeline construction. The Reclamation Status Report will be submitted by September 30<sup>th</sup> of each calendar year, and will include the well number, API number, legal description, UTM coordinates (using the NAD83 datum, Zone 13N coordinate system), project description (e.g., well pad, pipeline, etc.), reclamation status (e.g., Phase I Interim, Phase II Interim, or Final), whether the well pad or pipeline has been re-vegetated and/or re-contoured, percent of the disturbed area that has been reclaimed, method used to estimate percent area reclaimed (e.g., qualitative or quantitative), technique used to estimate percent area reclaimed (e.g., ocular, line-intercept, etc.), date seeded, photos of the reclaimed site, estimate of acres seeded, seeding method (e.g., broadcast, drilled, hydro-seeded, etc.), and contact information for the person(s) responsible for developing the report. The report will be accompanied with maps and GIS data showing each discrete point (i.e., well pad), polygon (i.e., area where seed was applied for Phase I and/or Phase II interim reclamation or area reclaimed for final reclamation), or polyline (i.e., pipeline) feature that was included in the report. Geospatial data shall be submitted: for each completed activity electronically to the designated BLM staff person responsible for the initial request and in accordance with WRFO geospatial data submittal standards (available from WRFO GIS Staff, or on the WRFO website). Internal and external review of the WRFO Reclamation Status Report, and the process used to acquire the necessary information will be conducted annually, and new information or changes in the reporting process will be incorporated into the report.

- In an attempt to track final reclamation of federal actions related to the development of federal mineral resources, the operator shall provide the *designated Natural Resource Specialist* with geospatial data in a format compatible with the WRFO's ESRI ArcGIS Geographic Information System (GIS). These data will be used to accurately locate and identify all geographic as-built (i.e., constructed) features associated with this project and included in the Application for Permit to Drill (APD) or Sundry Notice (SN), as appropriate. These data shall be submitted within 60 days of construction completion. If the operator is unable to submit the required information within the specified time period, the operator shall notify the designated Natural Resource Specialist via email or by phone, and provide justification supporting an extension of the required data submission time period. GIS polygon features may include, but are not limited to, constructed access roads, existing roads that were upgraded, pipeline corridors, and well pad footprints. Acceptable data formats are: (1) corrected global positioning system (GPS) files with sub-meter accuracy or better; (2) ESRI shapefiles or geodatabases; or, (3) AutoCAD .dwg or .dxf files. If possible, both (2) and (3) should be submitted for each as-build feature. Geospatial 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 shall be directed to WRFO BLM GIS staff at (970) 878-3800.

If the data is unable to be sent electronically, a compact disk(s) containing the data will be sent to:

BLM, White River Field Office  
Attn: NRS Staff  
220 East Market Street  
Meeker, Colorado 81641

If for any reason the location or orientation of the geographic feature associated with the Proposed Action changes, the operator will submit updated GIS data to designated BLM NRS staff person within 7 calendar days of the change. This information will be submitted via Sundry Notice.

- The authorized officer will be informed when reclamation has been completed, appears to be successful, and the site is ready for final inspection.

Figure 1. Project Map- SN#1: LN Hagood Lease Area; WEWP-4Way Tie-in.

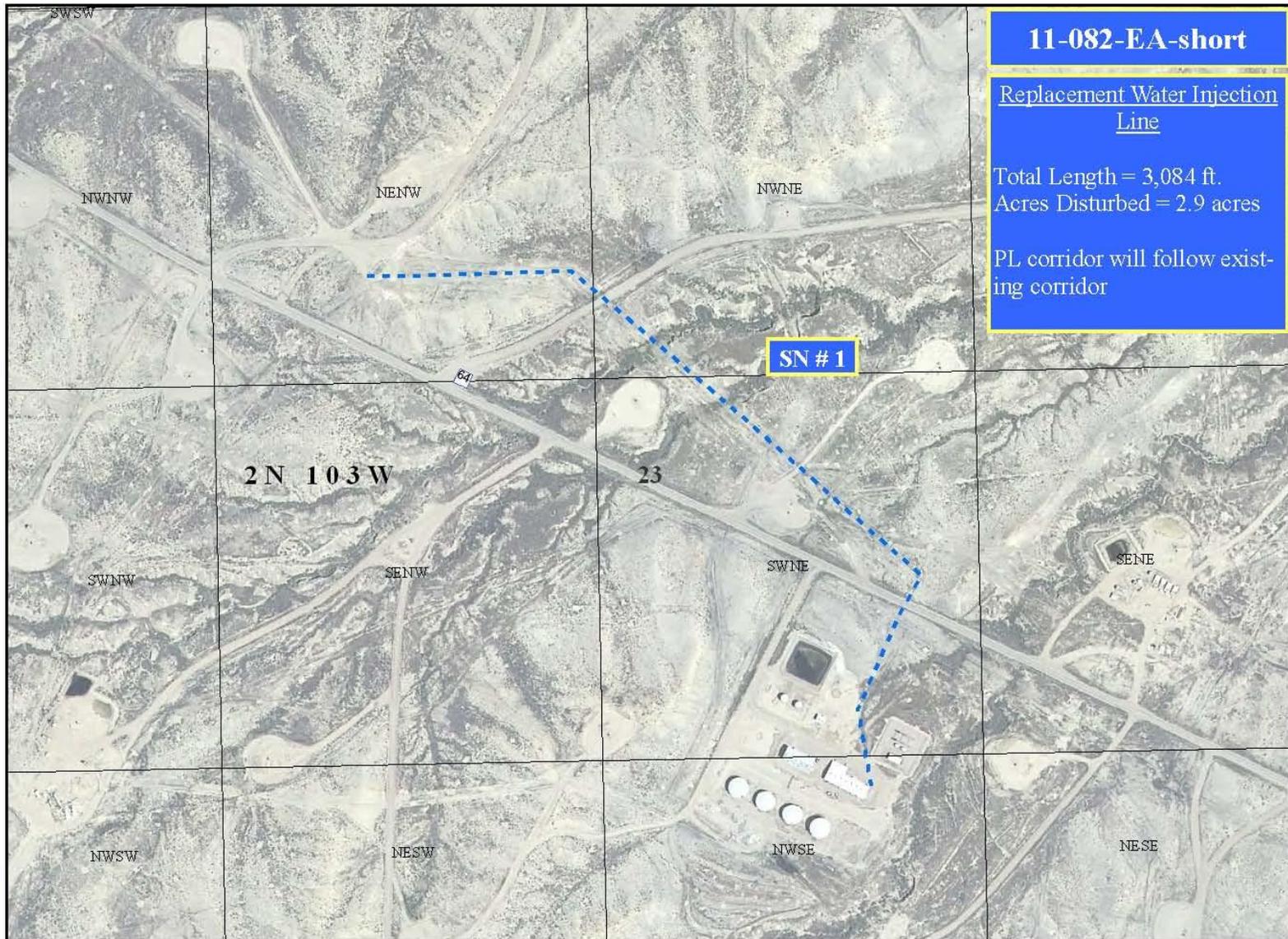
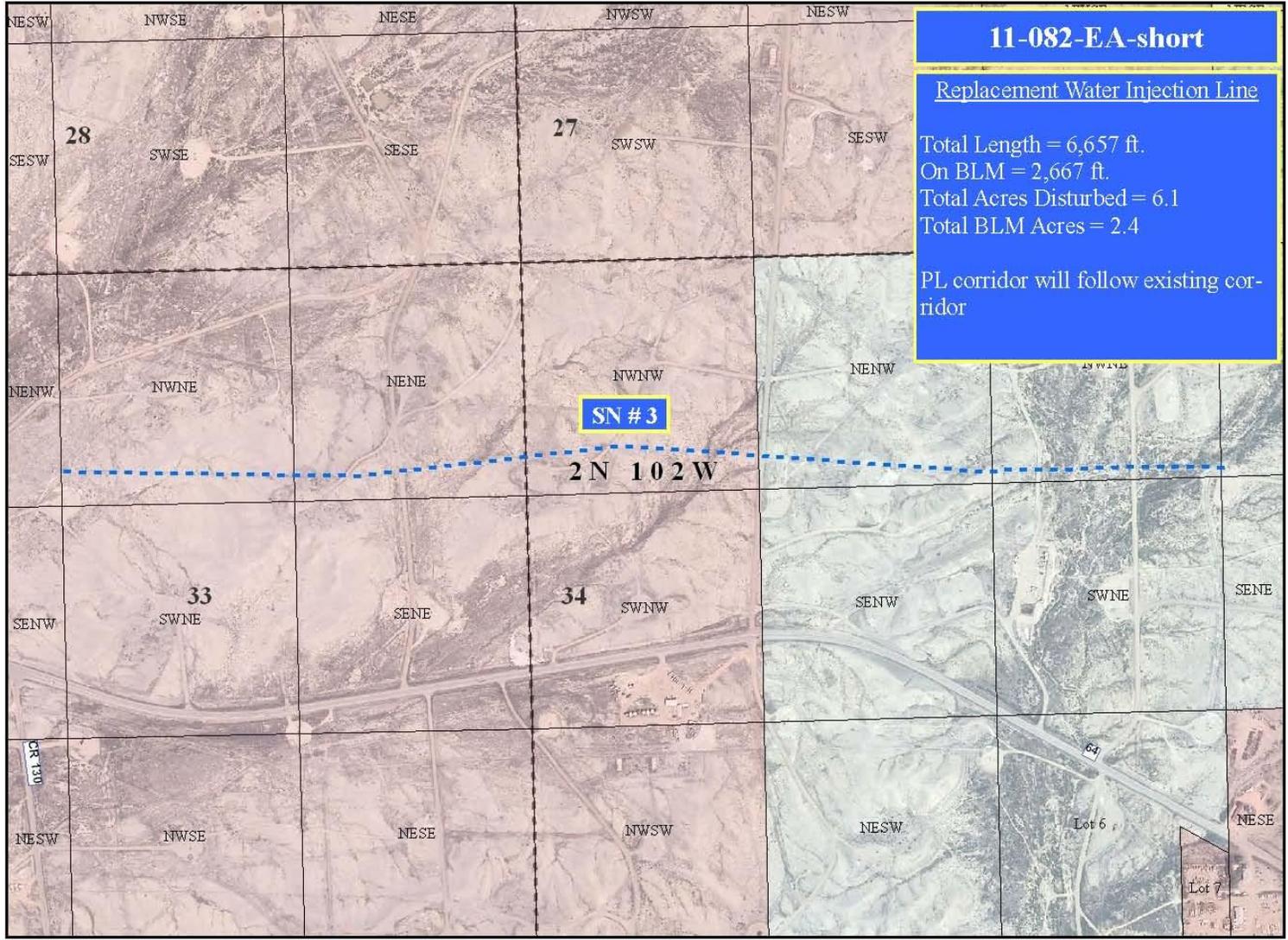


Figure 2. Project Map- SN#3: Carney Lease Area; DRA East Water Injection Line.



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

**Finding of No Significant Impact (FONSI)  
DOI-BLM-CO-110-2011-0082-EA**

**BACKGROUND**

Chevron USA, Inc, as the operator of the Rangely Weber Sand Unit submitted two sundry notices on April 18, 2011 proposing to install new replacement water injection lines in T. 2 N., R. 103 W., Section 23 and T. 2 N., R. 102 W., Sections 33 and 34. The proposals indicate the lines will be installed parallel to existing pipelines at a depth of 42 inches within a typical 40 ft corridor. The lines will be placed within a 10 ft offset from the existing line with no surface disturbance outside of the existing corridors. Reclamation of the proposed pipeline corridors will follow guidance provided in this document and per Chevron's Surface Use Plan of Operations (see Attachment 1). Prior to completion of the field-wide cultural survey of the Rangely field, Chevron plans to have an archaeological monitor present for construction activities, if required.

**FINDING OF NO SIGNIFICANT IMPACT**

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the White River Record of Decision and Approved Resource Management Plan (1997). Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

**Context**

The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance.

**Intensity**

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

**1. Impacts that may be both beneficial and adverse.**

The beneficial effects of the Proposed Action include support of the local and national oil and gas exploration and extraction industry and increased stewardship of public lands. The authorized operator has mandatory terms and conditions that must be met to maintain their lease.

This provides a certain level of stewardship of public lands in that if these lands were to become degraded by any activity or event, natural or human in origin, oil and gas activities and or other authorized uses would be terminated.

**2. The degree to which the Proposed Action affects public health or safety.**

There would be no impact to public health and safety.

**3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

There are no prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas associated with the Proposed Action.

**4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial.**

Oil and gas exploration, extraction, and development in Coal Oil Basin has been a constant feature within the landscape for many years. Moreover, the geographic extent, scope of work, and duration of construction and installation activities for the Proposed Action are similar to what has been reviewed in other NEPA documents and should not generate public controversy.

**5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.**

While it is assumed that risks within the project area will remain constant, no highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action.

**6. Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration.

**7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

No individually or cumulatively significant impacts were identified for the Proposed Action. Adverse impacts identified for the analysis of the Proposed Action, in conjunction with adverse impacts of other past, present, or reasonably foreseeable future actions will most likely not result in measurable impacts to natural and cultural resources.

**8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The analysis of the Proposed Action indicated that there will be no significant impacts to cultural resources from implementation of the Proposed Action.

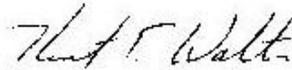
**9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973.**

The Proposed Action will have no measurable impact to threatened or endangered species.

**10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

Neither the Proposed Action nor impacts associated with it violate any laws or requirements imposed for the protection of the environment.

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

08/23/11

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

**DECISION RECORD**

**PROJECT NAME:** Two Sundry Notices: Replacement Water Injection and Flowlines

**ENVIRONMENTAL ASSESSMENT NUMBER:** DOI-BLM-CO-2011-0082-EA

**DECISION:**

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-2011-0082-EA, authorizing of the construction and installation of two replacement water injection lines in T. 2 N., R. 103 W., Section 23 and T. 2 N., R. 102 W., Sections 33 and 34.

**MITIGATION MEASURES:**

1. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless there are safety concerns or activities are otherwise approved by the Authorized Officer (AO).
2. In order to protect Public Land Health Standards for soils, erosion features such as rilling, gullyng, piping and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.
3. If salt is observed on the surface of soils during reclamation activities the AO will be notified and a plan will be developed with approval of the BLM to improve reclamation on the site.
4. Soil storage areas will be clearly marked to restrict vehicle and construction equipment use to only what is necessary to move the soil.
5. 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.
6. 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 vegetation (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.

7. The pipeline will be placed at a minimum of five feet below the current bed of the ephemeral drainage that needs to be crossed to hook into the existing waterline as shown in the Project Diagram.
8. Seed all disturbed areas with Seed Mix #1 listed in Table 6 using the seeding window described in Attachment 1. Note that seed rates are in pounds of pure live seed (PLS) and they are shown as the drill seed rates. Broadcast seed rates will be doubled and harrowed into the soil surface.

**Table 6:** Seed Mix #1.

Variety	Common Name	Scientific Name	Rate (lbs. PLS/acre)
Viva Florets	Galleta Grass	<i>Pleuraphis jamesii</i>	3
Rimrock	Indian Ricegrass	<i>Achnatherum hymenoides</i>	3
Toe Jam Creek	Bottlebrush Squireltail	<i>Elymus elymoides</i>	2.5
Rosana	Western Wheatgrass	<i>Pascopyrum smithii</i>	4
	Scarlet Globemallow	<i>Sphaeralcea coccinea</i>	0.25
	Annual Sunflower	<i>Helianthus annuus</i>	2.5
	Mat Saltbush	<i>Atriplex corrugata</i>	2

9. For weed monitoring commitments, see Attachment 1.
10. The use of herbicides will be under the supervision of an Environmental Protection Agency (EPA) certified applicator.
11. All equipment used for the installation of the pipeline will be washed prior to being brought onto BLM lands.
12. The operator is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
13. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. The operator will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. The operator, under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.
14. Pursuant to 43 CFR 10.4(g), the operator must notify the AO, by telephone and 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), the operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

15. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
16. If any paleontological resources are discovered as a result of operations under this authorization, the operator or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.
17. Any excavations into the underlying native sedimentary stone must be monitored by a permitted paleontologist. The monitoring paleontologist must be present before the start of excavations that may impact bedrock.
18. 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.
19. 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.
20. 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.
21. 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.

22. 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.
23. 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.
24. 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.
25. 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.
26. To avoid impacts to existing rights-of-way, Chevron would need to coordinate with right-of-way holders prior to any construction activity.

**COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN:**

This decision is in compliance with the the Endangered Species Act, and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

**ENVIRONMENTAL ANALYSIS AND FINDING OF NO SIGNIFICANT IMPACT:**

The Proposed Action was analyzed in DOI-BLM-CO-2011-0082-EA and it was found to have no significant impacts, thus an EIS is not required.

**PUBLIC INVOLVEMENT:** Scoping was the primary mechanism used by the BLM to initially identify issues. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 3/22/2011. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 03/30/2011.

**RATIONALE:**

Analysis of the Proposed Action has concluded that there are no significant negative impacts and that it meets Colorado Standards for Public Land Health.

**ADMINISTRATIVE REMEDIES:**

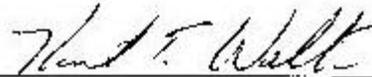
State Director Review:

Under regulations addressed in 43 CFR 3165.3(b), any adversely affected party that contests a decision of the Authorized Officer may request an administrative review, before the State Director, either with or without oral presentation. Such request, including all supporting documentation, shall be filed in writing with the BLM Colorado State Office at 2850 Youngfield Street, Lakewood, Colorado 80215 within 20 business days of the date such decision was received or considered to have been received. Upon request and showing of good cause, an extension may be granted by the State Director. Such review shall include all factors or circumstances relevant to the particular case.

Appeal

Any party who is adversely affected by the decision of the State Director after State Director review, under 43 CFR 3165.3(b), of a decision may appeal that decision to the Interior Board of Land Appeals pursuant to the regulations set out in 43 CRF Part 4.

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

08/23/11