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-110-2013-0098-EA

CASEFILE/PROJECT NUMBER: COC76176 (Water Recycling Pit)
COC76177 (Water Pipeline)
COC76178 (Access Road)

PROJECT NAME: WPX NE Ryan Gulch Water Recycling Pit

LEGAL DESCRIPTION: Sixth Principal Meridian, Colorado
T. 1 S., R. 98 W.,
sec. 24, lots 15 and 16;
sec. 25, lots 1 and 2.

APPLICANT: WPX Energy Rocky Mountain LLC

PURPOSE & NEED FOR THE ACTION: The purpose of the Proposed Action is to provide WPX Energy Rocky Mountain LLC with authorized use of the public land managed by the BLM to develop a water recycling pit, water pipeline, and access road for drilling activities in compliance with the Federal Land Policy Management Act of 1976 (FLPMA) and BLM right-of-way regulations.

The need for the Proposed Action is to respond to a right-of-way application request submitted by the applicant to construct, operate, maintain, and abandon a water recycling pit for the purposes of storing water to support completions operations and promote water recycling. The water recycling pit would also require two water pipelines and an associated access road on public lands administered by the BLM White River Field Office.

Decision to be made: The BLM will decide whether or not to grant the water recycling pit, water pipeline, and access road ROWs 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 6/18/2013. External scoping was conducted by posting this

project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 6/21/2013.

Issues: The NE Ryan Gulch Water Recycling Pit and Pad design was revised in order to avoid interference with a proposed White River Electric Association 138-kV power line.

Background: WPX's current drill times in Ryan Gulch average 12 days per well with an average of 6 wells per pad. Approximately 30 wells located on 5 well pads will benefit from use of the NE Ryan Gulch Water Recycling Pit on a per-rig, per-year basis. Over the 12 year life of the NE Ryan Gulch Water Recycling Pit, at a minimum, 95 pads containing 570 wells will benefit from use of the NE Ryan Gulch Water Recycling Pit.

The potential benefits from use of the NE Ryan Gulch Water Recycling Pit would include, but are not limited to:

- Decrease in daily truck traffic associated with water movements needed for completions;
- Decreased fugitive dust associated with water trucking operations;
- Increased ease of operations, which equates to greater efficiency in water delivery during completions operations.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES: WPX Energy Rocky Mountain LLC (WPX) proposes to construct a 100,000 barrel (bbl) lined water recycling pit, access road, and water pipelines (Exhibit A). Once the recycling pit is in operation, WPX would decommission the large water storage tanks located on the RGU 13-36-198 and RG 12-14-298 well pads. The pit would contain water gathered from and to be recycled during Ryan Gulch completion and production operations. Water would originate from and be recycled throughout the Ryan Gulch Asset (Ryan Gulch, Ryan Gulch Unit, Barcus Creek Unit, and Sandridge leases).

WPX would also construct and operate eight tanks (three oil tanks, three gunbarrel tanks, and two water tanks) immediately adjacent to the water recycling pit. WPX would use the RGU 31-25-198 well pad as a temporary work area for staging equipment and machinery. Once construction has ceased, all equipment and machinery would be removed from the RGU 31-25-198 well pad.

The water recycling pit would be used year round to support completions and production operations in the Ryan Gulch area. Construction would begin in the summer/fall of 2013 and would take approximately 60 to 90 days to complete. The life of the pit is expected to be 12 years, after which the pit and associated disturbance would be fully reclaimed.

The Proposed Action would directly disturb an estimated 9.4 acres for the water recycling pit, soil storage, pipelines, and the access road.

Water Recycling Pit: The proposed water recycling pit will be approximately 160 ft by 350 ft. The pit would be constructed to a depth of 17 ft at side slopes of 2V:1H (vertical: horizontal) in native cut material. The total disturbance, which includes access/work area, associated tank area,

and excess soil stockpile area, required to construct the water recycling pit is expected to be 7.61 acres (Exhibit A). However approximately 4.41 acres will be reseeded once the water recycling pit has been constructed. Expected long-term disturbance of this pit will be approximately 3.20 acres.

The perimeter of the pit would be fenced with a six ft high chain link fence and covered with a synthetic bird net. The water recycling pit would be submitted to the Colorado Oil & Gas Conservation Commission (COGCC) for approval and would be lined and operated in accordance with COGCC regulations. To minimize visibility and maximize function, the water recycling pit would be constructed adjacent to the RGU 31-25-198 well pad, however it would function independently of the well pad and would not hinder interim reclamation plans on the well pad.

There would be eight tanks on location to support operations of the water recycling pit. Tanks would be used to clean and separate water before it enters the pit. Water would first be sent through gunbarrel tanks to separate out oil. From the gunbarrel tanks, water would flow into water tanks, which act as surge tanks to regulate the flow of water into the pit and can be used to further clean the water, if needed. Oil separated out of the gunbarrel tanks would be stored in the three oil tanks on location and sold from this point.

To help ensure that water entering the pit is clean and suitable for recycling, filter pods or a filter press may be brought on location as needed. Solid waste recovered from the tanks or filtering operations would be sent to approved third party disposal sites for solids (ECDE Environmental or Wray Gulch Landfill).

The liner system is an engineered triple liner system that incorporates a leak detection system. The primary or top liner is composed of a 60 mil high density polyethylene (HPDE) geomembrane liner for primary containment. The second liner, or layer, is composed of a 40 mil HDPE liner for secondary containment. The third liner, or layer, is a geosynthetic bentonite clay liner. Between the primary and secondary liners is a 200 mil geonet drain mat designed to convey leakage, if any, through the primary liner to a collection sump and leak detection system.

Access Road: Existing roads would be improved for access to the water recycling pit. These roads include BLM Road 1146, the access road to the RGU 33-24-198 well pad, and the access road to the RGU 31-25-198 well pad. The access road to serve the water recycling pit would be 2,530 ft long, 30 ft wide, and contain approximately 1.74 acres. The Proposed Action includes using BLM Road 1146, an existing two-track road, which intersects the access road for the RGU 31-25-198 pad, as the access egress and ingress route for the Proposed Action. The 1,300 ft portion of BLM Road 1146 would be improved and constructed to Gold Book standards and have a 20 ft. running surface, a total width of 30 ft. This portion of BLM Road 1146 would be occupied by the water recycling pit for an anticipated 12 years and not available for public use. To protect public health and safety WPX would install and maintain gates on both sides of the access road to restrict public use of the access road upon completion of the construction and improvement of the access road. WPX would install and maintain signs stating Authorized Use Only at this gate once the gate is installed. The gates would be left open during the construction phase, but would remain closed after the construction period. The Proposed Action also includes

reclaiming this road upon final abandonment of this project, by ripping it to a depth of 18 inches, unless in solid rock, and then reseeding this portion.

Use of the existing two-track as the access road to serve the water recycling pit indirectly causes the portion of BLM Road 1146 from the intersection of the access road for RGU-31-25-198 well to the intersection of RBC Road 83 (approximately 1,800 ft.) to become an isolated route that does not provide unique access to public lands and is essentially redundant with RBC Road 83 and unneeded. The eastern portion of BLM Road 1146 would be re-routed to an improved access road 0.5 miles west off of RBC Road 83, then travel this road for 0.16 miles, and then back onto the existing BLM Road 1146 (Exhibit B). To implement this re-route WPX would revegetate the portion of BLM Road 1146 from RBC Road 83 to the access road for the RGU-31-25-198 well (0.3 miles or 1,800 ft.) and reseed it with the appropriate specified reclamation native seed mix. To prevent future motorized vehicle travel on this portion of the reclaimed road, WPX would place large woody debris on both ends of the reclaimed road for approximately 100 ft in distance with large native barriers, such as immovable boulders, placed across the entrance/exit of the reclaimed road in a manner to prevent any full-sized motorized vehicles and All-Terrain Vehicles (ATVs) from traveling this route.

Water Pipelines: The water recycling pit will tie into existing buried water lines to allow for water movement via pumping operations whenever possible, with trucking being a secondary option for water movement (not preferred). Water will be piped whenever possible to decrease impacts and costs. Two flex steel water lines up to 8 inches in diameter would be constructed to accommodate water piping. A temporary, portable pump will be brought on location as needed to support piping operations. The water lines would connect the water recycling pit to the existing, buried pipelines that serve the RGU 31-25-198 pad. Water lines would be 1,125 ft in length, 30 ft in width, and constructed within the road disturbance width (maximum 30 ft wide). The water line ROW would contain approximately 0.77 acres within the access road ROW.

Termination and Abandonment: WPX would remove the liner, recontour the pad and fully reclaim the site. The slopes of the pad would be recontoured to fit the natural topography. Three ft of clean soil would be put over the pit surface in accordance with COGCC regulations. All compacted portions of the pad, road, and pipeline route would be ripped to a depth of 18 inches unless in solid rock. Prior to seeding, windrowed topsoil would be spread to a uniform depth that would allow the establishment of desirable vegetation. Reclamation/reseeding would comply with BLM and COGCC regulations. WPX would comply with seeding requirements as established by the BLM WRFO.

The complete Plan of Development and Earthen Pit Construction and Synthetic Lining Plans and Specifications are available for review in the case file located at the WRFO.

No Action Alternative: Under the No Action Alternative, the BLM would deny the ROW application, and the proposed water recycling pit and water pipelines would not be constructed and the existing access road would not be used.

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: Page 2-49

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

AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

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 1 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) 5th 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 1. Past, Present, and Reasonably Foreseeable Actions

Action Description	STATUS		
	Past	Present	Future
Livestock Grazing	X	X	X
Wild Horse Gathers	X	X	X
Recreation	X	X	X
Invasive Weed Inventory and Treatments	X	X	X
Range Improvement Projects :	X	X	X

Action Description	STATUS		
	Past	Present	Future
Water Developments Fences & Cattleguards			
Wildfire and Emergency Stabilization and Rehabilitation	X	X	X
Oil and Gas Development: Well Pads Access Roads Pipelines Gas Plants Facilities	X	X	X
Power Lines	X	X	X
Oil Shale	X	X	X
Seismic	X	X	X
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 2 lists the resources considered and the determination as to whether they require additional analysis.

Table 2. Resources and Determination of Need for Further Analysis

Determination[1]	Resource	Rationale for Determination
Physical Resources		
PI	Air Quality	See discussion below.
NI	Geology and Minerals	The disturbance of 7.6 acres involved in the construction of the proposed water recycling pit, access road, and water pipelines would have little to no effect on the geology or mineral resources in the project area. Use of the facility could beneficially increase the efficiency of drilling operation.
PI	Soil Resources*	See discussion below.
PI	Surface and Ground Water Quality*	See discussion below.
Biological Resources		
NI	Wetlands and Riparian Zones*	Yellow Creek is the nearest system that supports riparian and wetland vegetation. The project area is separated from an intermittent portion of Yellow Creek by about 7 miles of low to moderate gradient ephemeral channel.
PI	Vegetation*	See discussion below.

Determination[1]	Resource	Rationale for Determination
PI	Invasive, Non-native Species	See discussion below.
PI	Special Status Animal Species*	See discussion below.
NI	Special Status Plant Species*	According to a survey conducted in May 2013 (WestWater Engineering) no SSPS plants were located within 600 meters of the project area. However, the area still remains an area of suitable habitat.
NI	Migratory Birds	The proposed project site is composed of habitats that support impoverished avian communities, and its utility for migratory bird nesting is substantially impaired from a convergence of numerous development-related facilities, including improved industrial access bordering 2 sides of the site paralleled by broad pipeline corridors, a 138-kV power line bordering a third side, and a producing multi-well gas pad off its southwest corner. No portion of the project site lies beyond 100 meters of frequently travelled county roads, well field access, or producing gas pads—a circumstance that reduces breeding bird densities (e.g., 50%). The site is composed of an open-canopied pinyon-juniper stand intermixed with Wyoming big sagebrush and considerable pinyon and juniper regeneration. These habitats do not support full complements of their respective bird communities and are normally represented by lower densities of habitat generalists (e.g., chipping sparrow, house finch, vesper sparrow and blue-gray gnatcatcher). Overall, the 7.5 acre site likely supports 30% or less of potential breeding bird abundance or richness (e.g., 2-4 pair of generalized species) and represents a location that would have little local or cumulative effect on breeding bird populations at any scale.
NI	Aquatic Wildlife*	The intermittent portion of Yellow Creek that accepts runoff from the project site is well separated from the Proposed Action (7 channel miles, see Wetlands/Riparian above). Wetland and riparian habitats along this reach are believed to be sporadically inhabited by chorus frogs and BLM-sensitive northern leopard frog, but the reach is not known to support fish. Fugitive sediments derived from construction and bare soils prior to reclamation are expected to be short term and indiscernible from backround levels. The risk of contaminated waters escaping the facility are low, considering the proponent's use of triple-lined pits and integral leak detection monitoring system.
PI	Terrestrial Wildlife*	See discussion below.
NI	Wild Horses	The proposed project is located outside the boundaries of the Piceance-East Douglas Herd Management Area (PEDHMA), the North Piceance, or West Douglas Herd Areas. However, wild horses have relocated in this area. Previous attempts have failed at gathering and removing these wild horses. It is estimated that future attempts will be conducted at gathering and removing all wild horses that have relocated outside of the PEDHMA.
Heritage Resources and the Human Environment		
PI	Cultural Resources	See discussion below.
PI	Paleontological Resources	See discussion below.

Determination[1]	Resource	Rationale for Determination
NP	Native American Religious Concerns	No Native American religious concerns are known in the area, and none have been noted by Northern Ute Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.
PI	Visual Resources	See discussion below.
PI	Hazardous or Solid Wastes	See discussion below.
PI	Fire Management	See discussion below.
NI	Social and Economic Conditions	There would not be any substantial changes to local social or economic conditions.
NP	Environmental Justice	According to recent Census Bureau statistics (2000), there are no minority or low income populations within the WRFO.
NP	Lands with Wilderness Characteristics	There are no lands with wilderness characteristics identified in or near the Proposed Action.
	Resource Uses	
PI	Forest Management	See discussion below.
PI	Rangeland Management	See discussion below.
NI	Floodplains, Hydrology, and Water Rights	The Proposed Action is not in an active floodplain, is unlikely to influence local hydrology, and will not impact the use of water rights.
PI	Realty Authorizations	See discussion below.
PI	Recreation	See discussion below.
PI	Access and Transportation	See discussion below.
NP	Prime and Unique Farmlands	There are no Prime and Unique Farmlands within the project area.
	Special Designations	
NI	Areas of Critical Environmental Concern	The nearest ACEC is Ryan Gulch, which is one mile to the southeast of the Proposed Action. There will be no known impacts as a result of the Proposed Action.
NP	Wilderness	There are no designated Wilderness Areas or Wilderness Study Areas in or near the Proposed Action.
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.

[1] 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.

AIR QUALITY

Affected Environment: The Proposed Action is an attainment area for national and state air quality standards, based on a review of designated non-attainment areas for criteria pollutants published by the Environmental Protection Agency (EPA 2013). The Proposed Action is also located more than 10 miles from any non-attainment or special designation areas. Non-attainment areas are areas designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the national ambient air quality (NAAQ) standards. Projects that could impact non-attainment and/or special designation areas may require special consideration from the Colorado Department of Public Health and Environment (CDPHE) and the EPA. The closest special-designation areas are Dinosaur National Monument, which is located northwest of the project area (designated Class II airshed with Prevention of Significant Deterioration (PSD) with thresholds for sulfur oxides and visibility), and the Flat Tops Wilderness Area located east of the Proposed Action (designated Class I). The closest non-attainment areas in Colorado are along the Front Range corridor. General conformity regulations require that federal activities do not cause or contribute to a new violation of NAAQ standards; that actions do not cause additional or worsen existing violations of the NAAQ standards; and that attainment of these standards is not delayed by federal actions in non-attainment areas.

The Proposed Action is in Rio Blanco County within the Western Counties Monitoring Region of Colorado (APCD 2010). Local air quality parameters, including particulates, are measured at monitoring sites located at Meeker, Rangely, Dinosaur, and Ripple Creek Pass near the Flat Tops Wilderness Area. Ozone data has been collected in Meeker and Rangely since 2010 and at Colorado National Monument in Mesa County since 2007. To a limited extent, ozone is also measured at Dinosaur National Monument. The closest location for an Interagency Monitoring of Protected Visual Environments (IMPROVE) site is near the Flat Tops Wilderness, northeast of the Project Area. IMPROVE sites measure visibility impairment from airborne particles.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action would result in low and short-term impacts on air quality during construction and may also result in volatile organic compounds (VOCs) being released during operation of the recycling facilities and storage of water in the pit. Increases in the following criteria pollutants would occur due to combustion of fossil fuels during construction activities: carbon monoxide, ozone (secondary pollutant formed photochemically from VOCs and nitrogen oxides (NOx)), nitrogen dioxide, and sulfur dioxide.

Ozone advisories and alerts were issued in the winter of 2011 and 2013 for Rio Blanco County based on data collected from the Rangely monitoring site. Ozone can cause breathing difficulties and worsen respiratory infections especially in the elderly, the young, and those with pre-existing ailments such as asthma. It is unlikely that the area where the Proposed Action is located would be in a future non-attainment area for ozone. This is due to the distance from Rangely and local climate conditions which favor dispersion of pollutants that form ozone.

Additional low, short-term impacts to air quality would occur due to the release of VOCs, including hazardous air pollutants (HAPs) commonly associated with oil and gas production (benzene, toluene, ethylbenzene, xylene, and n-hexane), from tanks, separation equipment, and due to transportation of produced water and condensate by pipeline or trucks. The amount of these releases are difficult to estimate, but would be assumed to be within CDPHE air permit

limits estimated in tons per year. Non-criteria pollutants (NAAQ standards have not been set for non-criteria pollutants), such as nitric oxide, air toxics (e.g. benzene), and total suspended particulates, may experience slight, temporary increases as a result of the Proposed Action.

Soil disturbance resulting from construction is expected to cause increases in fugitive dust and inhalable particulate matter, specifically particulate matter (PM) 10 microns (μm) or less in diameter (PM_{10}) and particles 2.5 μm or less in diameter ($PM_{2.5}$). Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. More than 70 percent of PM_{10} (coarse particles) is created from windblown dust and soil from roads, fields, and construction sites. A smaller percentage of coarse particles comes from automobile and diesel engine exhaust, soot from wood fires, and sulfates and nitrates from combustion sources such as industrial boilers (CAQCC 2011). Dust production is most likely during the construction phase, especially when conditions are dry and/or windy. Particulate matter is the major contributor to reductions in visibility, due to their ability to scatter or absorb light. Particulate matter can also have human health impacts.

Fugitive dust emissions would likely cause low, short-term impacts to local air quality, specifically visibility. Topsoil removed during construction would be stabilized. As vegetation establishes in the reclaimed areas, dust production will occur only when vehicles travel on the access roads. The increase in airborne particulate matter from this project is not expected to exceed CAAQ or NAAQ standards on an hourly, 8-hour average or daily basis.

In summary, soil disturbance resulting from construction is expected to cause increases in fugitive dust and inhalable particulate matter in the project area and immediate vicinity and may contribute to reductions in regional visibility. In addition, increases in the following criteria pollutants: carbon monoxide, VOCs, ozone, nitrogen dioxide, and sulfur dioxide would also occur. Non-criteria pollutants such as carbon dioxide, methane and nitrous oxides, air toxics (e.g., benzene), total suspended particulates (TSP), and increased impacts to visibility and atmospheric deposition may also increase as a result of the Proposed Action. Due to the reduced truck traffic expected, the impacts may be lower than the No Action Alternative. Even with these increased pollutants, the Proposed Action is unlikely to result in an exceedance of NAAQ and CAAQ standards, and it is likely to comply with applicable PSD increments and other significant impact thresholds.

Cumulative Effects: The cumulative impacts area for the Proposed Action is the two-county area (Rio Blanco and Garfield Counties). Principal air pollution sources in the two-county area include emissions from motor vehicles, oil and gas development, coal-fired power plants, coal mines, sand and gravel operations, windblown dust, and wildfires and prescribed burns (CAQCC 2011). Facility emissions in the two-county area are dominated by emissions related to oil and gas exploration, processing, or transportation. Due to emission sources in the Piceance, White River, and in the nearby Uinta and Yampa River Basins, VOCs, nitrogen oxides, and dust (particulate matter) are likely to increase into the future. With the exception of ozone, overall air quality conditions in Rio Blanco and Garfield Counties are likely to continue to be in attainment of NAAQ standards due to effective atmospheric dispersion.

Since 2010, the Rangely and Dinosaur areas in Northwestern Colorado have measured high values of ozone during static air events. High ozone values are likely due in part to VOCs and nitrogen oxides emitted by oil and gas development in the Uinta basin near Rangely and from power plants in Utah. Until this year these values have not been high enough to lead to an exceedance of NAAQ standards. Maximum 8-hour average ozone values measured at Rangely in January and February of 2013 are likely to result in exceedance of the NAAQ standards, since the fourth highest value for 2013 is already 91 ppb and the average of the fourth highest values from 2011-2013 is currently 77 ppb (74 ppb is the NAAQ standard). Additional regulation of emissions will likely be applied to BLM permitted oil and gas development within a future designated non-attainment area. As described above, EPA and CDPHE are responsible for designating non-attainment areas and would likely require performance standards and practices in this area to ensure future compliance with NAAQ standards. These would have the effect of lowering emissions non-attainment areas, but are unlikely to have an impact on air quality in the area of the Proposed Action.

The Proposed Action is unlikely to contribute to the exceedance of NAAQ standards for ozone in the Rangely and Dinosaur areas since the predominant wind patterns in Yellow Creek and Piceance Creek basins generally blow from southwest to northeast. The Meeker air quality site to the northeast of the Proposed Action has not measured an exceedance of NAAQ standards, and the average of the fourth highest value for 8-hour ozone for 2010-2012 was 64 ppb. Therefore, this action is unlikely to lead to a violation of NAAQ standards for ozone or contribute to the air quality conditions leading to the exceedance of standards measured in Rangely or Meeker.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: No direct impacts to air quality would result from the No Action Alternative. Indirect effects would be higher truck traffic as compared to the Proposed Action since storage and piping the water is expected to reduce truck transportation of fluids.

Cumulative Effects: Impacts would be similar to those described for the action alternative.

Mitigation: 1. WPX will limit unnecessary emissions from point or nonpoint pollution sources and prevent air quality deterioration from necessary pollution sources in accordance with all applicable state, federal and local air quality law and regulation.

2. WPX will treat all access roads with water and/or a chemical dust suppressant during construction and operation activities so that there is not a visible dust trail behind vehicles. Any technique other than the use of freshwater as a dust suppressant on BLM lands will require prior written approval from BLM.

SOIL RESOURCES

Affected Environment: The classifications of soils within 30 meters of the proposed surface disturbance and potentially impacted by the Proposed Action are shown in Table 3.

There are no fragile soils or soils prone to landslides on Federal lands that would be impacted by this project.

Table 3. Soil Classifications within 30 Meters of the Surface Disturbance Proposed and/or the Centerline of Roads and Pipelines (NRCS, 2008).

Soil Classification	Range Site Description	Erosion Hazard	Rutting Hazard	Potentially Impacted Acres
Yamac loam, 2 to 15 percent slopes	Rolling Loam	Slight	Severe	8.5
Rentsac channery loam, 5 to 50 percent slopes	None	Moderate	Slight	8.2

Rentsac complex soils are shallow and well drained, formed on ridges from calcareous sandstones with channery rock fragments. These channery loam soils have rapid runoff and the hazard of water erosion is moderate to very high.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: With proper BMPs for stormwater, construction practices, reclamation practices, and mitigation described below, impacts to soils outside the 30 meter buffer around the surface disturbance is not likely.

Direct impacts from the construction of the pit, pipelines, and the access road would include soil compaction, removal of vegetation, exposure of subsoil, mixing of soil horizons, loss of topsoil productivity, and an increase in the susceptibility of soils to wind and water erosion. Compaction due to construction activities would reduce aeration, permeability, and water-holding capacities of soils in some locations. Removal of vegetation exposes soils to erosion from rainfall, wind, and surface runoff. Exposure of subsoil and mixing of soil horizons can change the physical characteristics of subsoil and may reduce the productivity of these soils into the future. Loss of topsoil productivity can occur during storage due nutrient loss through percolation of precipitation through the soils, physical loss, and mixing of less productive soil layers during moving and a loss of structure. An increase in surface runoff and sedimentation could be expected from impacted soils, and these soils are likely to be less resilient to erosion from surface runoff after disturbance.

These direct impacts could result in increased indirect impacts to soils off the construction site, such as increased runoff and erosion. Implementation of BMPs for stormwater, mitigation, and reclamation would reduce impacts from this project and should limit impacts to the disturbed areas. However, there is the potential for intense storm events and BMP failures resulting in erosion off the site. This is most likely to occur on the steep slopes adjacent to the water pit. Monitoring of areas around the pit as required in the mitigation below should identify any failure of BMPs or unanticipated erosion and allow a plan to be developed for addressing them.

Indirect impacts from this project could result in contamination of surface and subsurface soils due to unintentional leaks or spills from construction equipment and storage tanks. If these spills occurred, they would affect the productivity of soils.

Cumulative Effects: Well pads in the general area (Yellow Creek watershed) have been and are likely to be multi-well pads and would likely occur, on average, at two to three well pads per square mile. Additional production wells would include surface disturbance for well pads, pipelines, roads and support facilities. Extensive development of oil and gas in this area is foreseeable. Livestock and dispersed recreation occurs on public and private lands in the area and may reduce canopy cover and lead to localized erosion in some reclamation areas. No other impacts other than oil and gas development, livestock, wild horses, and recreation are expected. In general, soil disturbance in the Proposed Action and other activities are likely to reduce soil productivity and may lead to increased erosion and instability of soils in local areas, but is not likely to be outside the 30 meter buffer around the disturbance analyzed for impacts to soil resources.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: No impacts to soils would occur.

Cumulative Effects: Impacts would be similar to those described for the action alternative.

Mitigation: 1. In order to protect rangeland health standards for soils, erosion features such as rilling, gullying, piping, and mass wasting on the surface disturbance or adjacent to the surface disturbance as a result of this action will be addressed immediately after observation by contacting the AO and by submitting a plan to assure successful soil stabilization with BMPs to address erosion problems.

2. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless approved by the Authorized Officer.

3. The access road should be constructed as an all-weather surface due to the likely traffic that would occur to this site. This all-weather surface should be maintained through the life of the water recycling pit.

4. The soil excess pile will be seeded and an erosion control fabric or mulch will be applied after seeding to stabilize the surface and enhance the establishment of vegetation after construction of the pit.

Finding on the Public Land Health Standard #1 for Upland Soils: This action is unlikely to reduce the productivity of soils on public lands.

SURFACE & GROUND WATER QUALITY

Affected Environment: Surface Water: This project is within the headwaters of Yellow Creek. Table 4 describes water segments that may be impacted by this project.

Table 4. Water Quality Classification Table (WQCC 2012b)

Segment	Segment Name	Use	Protected Beneficial Uses

		Protected	Aquatic Life	Recreation	Agriculture	Water Supply
13b	Mainstem of Yellow Creek including tributaries from their source to Barcus Creek	No	Warm 2	Non-Primary Contact Recreation	Yes	No
13c	Mainstem of Yellow Creek from Barcus Creek to the White River	No	Warm 2	Non-Primary Contact Recreation	Yes	No

Segment 13b describes tributaries to Yellow Creek that are protected for warm water aquatic life (Warm 2). Segment 13c describes Yellow Creek from Barcus Creek to the White River, and it is also 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 exceeds 20°C. The Warm 2 designation means that it has been determined that these waters are not capable of sustaining a wide variety of warm water biota. This segment also has standards that are protective of recreation and agriculture, but not water supply.

Segment 13b is listed on the 303d list of Colorado's impaired waters for aquatic life for Duck Creek and segment 13c is on the impaired list for total recoverable iron and aquatic life (WQCC 2012). This aquatic life listing is based on macroinvertebrate sampling done throughout Colorado and indications that the macroinvertebrate communities are different than reference conditions in other streams in Colorado.

Groundwater: Precipitation in this area moves from areas of recharge to surface waters via alluvial aquifers and on the surface during spring melt and rain storms. A portion of annual precipitation infiltrates to deeper bedrock aquifers that contribute to contact springs. Springs and groundwater inputs generally occur in both bedrock and alluvial aquifers along valley bottoms.

Contact springs are common in the area and are often the result of upper bedrock aquifers consisting of fractured sandstones and shales. Perched groundwater zones occur locally when saturated zones contact differences in permeability and solubility of individual formations. These contact zones can occur in the ridges between surface water drainages and may be manifested as springs and seeps above the valley floor in outcrop areas.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Surface Waters: Clearing, grading, and soil stockpiling activities associated with the Proposed Action would alter overland flow and natural infiltration patterns. Potential direct impacts include surface soil compaction caused by construction equipment and vehicles, removal of vegetation and disturbance of surface soils, which would increase rain-splash erosion and reduce the soil's ability to absorb water and increase the volume and rate of surface runoff, which in turn would increase surface erosion. Surface runoff associated with storm events may increase sediment loads in surface waters down gradient of disturbed areas. Sediment can be deposited and stored in minor drainages where it would be moved into the White River during heavy convective storms.

The Proposed Action is unlikely to change iron concentrations in Duck Creek or change water quality characteristics in the mainstem of Yellow Creek for aquatic life. The BLM has established a streamflow monitoring site on Yellow Creek and both water quality and macroinvertebrates have been sampled at this location and will be monitored into the future as budgets allow.

Groundwater: Impacts to groundwater resources could occur due to failure of the liners for the pit, and leaks or spills from the pipeline, but are unlikely. The pit will have a triple liner with a leak detection system, and there is already an extensive amount of water piping around the field so this activity is not unique. Water handled by the facility will be produced water and leftover drilling and hydraulic fracturing fluids. Types of chemical additives used in drilling activities may include acids, hydrocarbons, thickening agents, lubricants, and other additives that are operator and location specific. Concentrations of these additives also vary considerably and are not always known, since different mixtures can be used for different purposes in gas development and even in the same well bore.

Cumulative Effects: Well pads in the general area (Yellow Creek watershed) have been and are likely to be multi-well pads and would likely occur on average at two to three well pads per square mile. Additional production wells would include surface disturbance for well pads, pipelines, roads and support facilities. Extensive development of oil and gas in this area is foreseeable. Livestock and dispersed recreation occurs on public and private lands in the area and may reduce canopy cover and lead to localized erosion in some reclamation areas. No other impacts other than oil and gas development, livestock, wild horses, and recreation are expected in the Yellow Creek watershed.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Neither ground nor surface water quality would be impacted by the no action alternative.

Cumulative Effects: Impacts would be similar to those described for the action alternative, but would not include the impacts from the Proposed Action.

Mitigation: 1. To protect surface waters below the project area, keep road inlet and outlet ditches, sediment retention basins, and culverts free of obstructions, particularly before and during spring run-off and summer convective storms. Provide adequate drainage spacing to avoid accumulation of water in ditches or on road surfaces.

2. Install culverts and low-water crossings with adequate armoring of inlet and outlet. Patrol areas susceptible to road or watershed damage during periods of high runoff.

3. Locate drainage dips and drainage ditches in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or dips.

Finding on the Public Land Health Standard #5 for Water Quality: It is unlikely that construction of the pit, the access road, and the pipeline would result in an exceedance of state water quality standards.

VEGETATION

Affected Environment: The proposed project would be located on both a rolling loam ecological site with a moderate level of pinyon/juniper encroachment into the Wyoming sagebrush (*Artemesia tridentata* spp. *wyomingensis)* community and on a mid-seral pinyon/juniper ecological site characterized by young and mid age Utah juniper (*Juniperus osteosperma)* and a sparse herbaceous understory. The herbaceous component on these sites contains in part, western wheatgrass (*Pascopyrum smithii).* junegrass (*Koeleria machrantha*), needle and thread (*Stipa comata*), Sandberg bluegrass (*Poa secunda*), Indian ricegrass (*Achnatherum hymenoides*), and beardless wheatgrass (*Pseudoroegneria spicata*). Throughout the area, especially associated with earthen disturbances, there is a component of cheatgrass (*Bromus tectorum*) that would readily spread into disturbed areas.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Construction of the proposed project would remove all vegetation from approximately 9.4 acres. Direct impacts of vegetation removal include long-term (for the life of the project) loss of vegetation and the modification of plant community structure, species composition, and a short-term reduction of basal and aerial vegetative cover. Removal of vegetation also results in increased soil exposure, short-term loss of wildlife habitat, reduced plant diversity, and loss of livestock forage. Indirect impacts include the increased potential for non-native/noxious plant establishment and introduction, accelerated wind and water erosion, changes in water runoff due to road/facility construction, soil impacts that affect plant growth (soil erosion or siltation), shifts in species composition and/or changes in vegetative density away from desirable conditions, and changes in visual aesthetics. Successful interim reclamation of the 4.4 acres would reduce the overall vegetation loss during the life of the project. After final reclamation of all disturbed areas, there would likely be a slight increase in herbaceous vegetation for a number of years. Reestablishment of woody species may not begin for more than 20 years after final reclamation. Environmental conditions could prevent initial reseeding efforts from being successful, resulting in an extended re-vegetation period for reclamation. Incorrect placement of excavated soil back into the pit could result in a substrate that is not capable of supporting a healthy native plant community. WPX's design criteria should mitigate most of the impacts outlined above.

Cumulative Effects: The proposed project, when added to other projects and developments in and near the project area, as well as within the Piceance Basin as a whole, would result in an increase in short-term removal of existing vegetation on private and public land. Long-term changes in plant community composition and structure would also occur on those project sites and on a broader scale from activities such as livestock grazing. Of the total potential vegetation removal near the project area and the Piceance Basin, the proposed project would not result in a noteworthy increase in vegetation disturbance or long-term changes in plant community.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Denial of the project would result in no impacts to vegetation at the proposed pit site and associated road/pipeline disturbances.

Cumulative Effects: Denial of the proposed project would have little impact on the cumulative effect of oil and gas development impacts to the vegetative communities in the Ryan Gulch area or in the Piceance Basin as a whole.

Mitigation: 1. To reduce erosion and minimize noxious weed establishment, all areas of the disturbance where it is not necessary to keep the area free of vegetation shall be seeded with the recommended seed mix below.

2. All seed used must be certified and free of noxious weeds. All seed tags will be submitted to the designated Realty Specialist within 14 calendar days from the time the seeding activities have ended. Documentation shall be provided with the seed tags to address the purpose of the seeding activity (i.e., seeding of re-contoured areas) and, if applicable, the name and contact information of the contractor who performed the work, the seeding method (e.g., broadcast, hydro-seeded, drilled), an as-built shape-file of the area seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.

3. Construction equipment shall be cleaned prior to entering public land at a location and in a manner that does not result in further weed spread.

4. The BLM recommends Standard Seed Mix 2 for all reclamation activities. Seeding rates are shown for drill seeding rates (Table 5) and should be doubled for broadcast application. Seed should be applied anytime between mid-September and mid-March. If an alternate date of seeding is requested, contact the designated Realty Specialist prior to seeding for approval. Seed mixture rates are Pure Live Seed (PLS) pounds per acre. Topsoil stockpiles must be seeded immediately as part of Phase I interim reclamation.

Table 5. Native Seed Mix 2

Variety	Common Name	Scientific Name	Rate (Lbs. PLS/acre)
Arriba	Western wheatgrass	*Pascopyrum smithii*	4
Whitmar	Bluebunch wheatgrass	*Pseudoroegneria spicata*	4
Rimrock	Indian ricegrass	*Achnatherum hymenoides*	3.5
Lodorn	Green Needlegrass	*Nassella viridula*	2.5
Timp	Northern Sweetvetch	*Hedysarum boreale*	3
	Scarlet Globemallow	*Sphaeralcea coccinea*	0.5

5. If, after three growing seasons, the following success criteria are not achieved then the steps will be reassessed in consultation with the BLM WRFO and additional seeding at an appropriate seeding window will occur. Success criteria to achieve:

- Vegetation monitoring (method approved by the BLM) reveals vegetation with eighty percent similarity of desired foliar cover, bare ground, and shrub and or forb density in relation to the identified DPC. In the absence of specified DPC data, an agreed upon reference site or AIM data would serve as the DPC. Vegetative cover values for woodland or shrubland sites are based on the capability of those sites in an herbaceous state.
- The resulting plant community must have composition of at least five desirable plant species, and no one species may exceed 70 percent relative cover to ensure that site species diversity is achieved. Desirable species include native species from the surrounding site, species listed in the range/ecological site description, or species from the BLM approved seed mix.

6. A Reclamation Status Report will be submitted electronically to the WRFO annually (due January 1st) until it is determined that reclamation of the site has met all required objectives of that particular reclamation phase. Every third year, a vegetation monitoring report should accompany the status report. The reclamation status report will be submitted electronically via the most current data management system. Contact your WRFO project lead (NRS/Realty Specialist) with any questions. Any changes to the project status or related information can also be provided through the most current data management system.

- The Reclamation Status Report will include the ROW number, legal description, UTM coordinates, project description, date seeded, photos of the reclaimed site taken from permanent photo points, estimate of acres seeded, seeding method (e.g., broadcast, drilled, hydro-seeded, etc.), a diagram showing where reclamation has occurred with photo points identified and noted, additional notes as needed, and contact information for the person responsible for developing the report.

7. Final reclamation for abandonment of the site will use the seed mix and reclamation practices recommended by BLM at that time.

Finding on the Public Land Health Standard #3 for Plant and Animal Communities: With implementation of mitigation measures and successful re-vegetation, the Proposed Action would have no effect on the status of Land Health Standard #3 in the project area or at a landscape scale.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: There are few or no noxious weeds currently associated with the site of the Proposed Action. Colorado State Listed weeds known to occur in the general area include: cheatgrass (*Bromus tectorum)*, common mullein (*Verbascum thapsus*), houndstongue (*Cynoglossum officianale),* musk thistle *(Carduus acanthoides),* whitetop *(Cardaria draba),* tamarisk *(Tamarix spp.),* and bull thistle *(Cirsium vulgare)* (Colorado Department of Agriculture 2011).

Cheatgrass is present in scattered occurrences throughout the project area primarily on areas of unrevegetated earthen disturbance such as road sides, well pads, and pipelines and in scattered occurrences in the surrounding plant community. Other common weeds known to occur in the general project area include Kochia (*Kochia scoparia*) and Russian thistle (*Salsola australis*).

Environmental Consequences of the Proposed Action: The 9.4 acres of disturbance associated with the Proposed Action could create or exacerbate a noxious weed problem by importing weed seed on vehicles and equipment or by creating suitable conditions in the form of non-vegetated disturbed areas. Construction activities associated with the project could spread noxious weed species by carrying seeds or plant parts (rhizomes) on construction equipment. Cheatgrass establishment is very likely if disturbed surfaces are not reclaimed immediately following the disturbance.

Establishment of noxious or invasive weeds on the project's disturbed soils could result in some areas being dominated by these aggressive species. It would also result in additional seed sources that would help to expand the occurrence of these species into adjacent plant communities.

Cumulative Effects: The proposed project could contribute to the noxious and invasive plant species present in the surrounding areas. However, existing roads through the area are common sources of invasive and noxious weeds, so elimination of these species from the general area may be unlikely. However, there would be a low likelihood of long term negative impacts if the proposed mitigation including long term weed control is properly implemented.

Environmental Consequences of the No Action Alternative: Noxious and invasive plants would continue to be present within the vicinity of the proposed project and, depending on the aggressiveness of weed treatment activities, may continue to spread.

Cumulative Effects: Cumulative effects would be similar to those from the Proposed Action.

Mitigation: The holder will implement an integrated weed management plan according to BLM Manual 9015-Integrated Weed Management (BLM 1992) and maintain this treatment through approval of final reclamation of the project. Prior to the season of construction, the holder should submit Pesticide Use Proposals for the use of herbicides appropriate for control/eradication of the known noxious and invasive nonnative species.

SPECIAL STATUS ANIMAL SPECIES

Affected Environment: The only special status animal with potential to inhabit the project site is the BLM-sensitive Brewer's sparrow. This sagebrush obligate is an abundant and widely distributed migratory bird that nests in this area from late May through mid-July. However, suitability of the site for nesting by this species is substantially reduced for the following reasons:

•Pinyon and juniper regeneration established among the five acres of sagebrush shrubland potentially influenced by project occupation/operation substantially reduces the likelihood of Brewer's sparrow selecting these shrublands as nesting habitat;

•The shrubland habitat available for nesting use is relegated to small 1 to 3 acre parcels, none of which lie beyond 50 meters of an existing road, trail, or producing well pad. These species have a demonstrated aversion to human-related activity, and the likelihood of nest establishment in marginal habitat within 50 meters of a disturbance source is considered low.

The project site is located within the White River watershed and drains via Yellow Creek to a portion of the river that is designated critical habitat for the endangered Colorado pikeminnow. Recently, the endangered razorback sucker has been documented making use of the lower White River in Utah, and its upper distribution could presumably include the White River in Colorado. Both these and the endangered bonytail and humpback chub rely on White River flow contributions to support of downstream habitat function in the Green and Colorado Rivers.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Modification of flow regimes, water temperatures, sediment levels, and water chemistry caused by water depletions contributes incrementally to a reduction in the availability and quality of aquatic habitats for the White River's native fish community (including the endangered Colorado pikeminnow and razorback sucker, and BLM-sensitive roundtail chub, flannelmouth sucker, and mountain sucker) and indirectly aids in the proliferation of non-native fish which interact competitively or predate native fish reproduction. However, the Proposed Action has little, if any, requirement for water. Because the pit would be constructed entirely in fill, no water would be required for soil compaction. Although dust suppression may be required over the course of construction, the road network that would be used for access (and frames the project site) is shared among several ongoing well development and facility access activities that routinely use water when required for dust control, such that no additional water use can be necessarily attributed to the Proposed Action. Further, one of the primary purposes of the project is to make more efficient use and allow for the reuse of water for a large number of drilling and completion operations (570 wells over 12 years), and its installation would therefore be instrumental in measurably reducing the annual consumptive rate of fresh water required for fluid mineral development as a factor in flow depletion from the Upper Colorado River Basin. Over the 10 year operational life of the project, there would be no effective net depletion of water from the upper Colorado River Basin associated with the Proposed Action.

Cumulative Effects: The physical footprint and operational activity associated with the proposed project would have virtually no additive influence on the availability of suitable nest habitat for Brewer's sparrow at any landscape scale. Substantial reduction in large truck traffic throughout the applicant's field over the 12-year well development period may be expected to, in an incremental sense, moderate the degree of avoidance response and the extent of nest habitat disuse adjacent to the field's well access network. Similarly, establishing the means to more efficiently use and recycle water would incrementally reduce the annual rate of water consumption from endangered fish habitat in the upper Colorado River basin over the 10-year well development phase.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no physical habitat-related effects generated from installation of the project (as discussed above), but the cumulatively positive aspects of the

project, including reducing the per-unit water requirements for well development and reductions in the field-wide frequency of large truck traffic over the 12-year well development phase would be foregone.

Cumulative Effects: Same as above.

Mitigation: None.

Finding on the Public Land Health Standard #4 for Special Status Species: The lands surrounding the project proposal support considerable oil and gas development activity that reduces its capacity to support sagebrush dependent migratory birds; however, those impacts do not change the overall distribution or long term prospects for maintaining viable populations of breeding birds, including Brewer's sparrow, thereby meeting the land health standard. The project proposal itself is short-term (12 years) relative to the associated producing well pads (several decades), and once abandoned and reclaimed, the site is expected to redevelop sagebrush canopies that are better suited to support Brewer's sparrow nest functions than their former state (barring continued behavioral influences from production activity). In the long term and from the landscape perspective, the Proposed Action would have no influence on the land health standard.

TERRESTRIAL WILDLIFE

Affected Environment: The project area is encompassed by deer and elk winter ranges, including severe winter range for mule deer, and are occupied primarily from early October through April. These ranges, by merit of topography, elevation, and vegetation, provide those elements necessary for successfully coping with the energetic and physiological demands of the winter season and subsequent gestation period.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Big game severe winter ranges are traditionally regarded as having the most important seasonal range function and key to sustaining a level of animal fitness and annual production/recruitment that supports the sport hunting industry. Timing limitations are the device most often used to reduce human-caused disturbances during the period of animal occupation. Behavioral response of big game to human activity varies in degree, but is almost universally credited with elevating energetic demands and indirectly reducing the availability of forage and cover resources through the act of avoidance.

Recent big game research has challenged the long-held notion that timing limitations are capable of substantially reducing behavioral impacts to big game and effectively preventing declines in big game populations. Timing limitations, too, are incompatible with efficient recovery of natural gas reserves in the Mesaverde Play Area and detract from certain benefits derived from modern drilling technologies (e.g., directionally drilled, multiple well pads). To better balance the competing demands of natural gas production and wildlife, the applicant has entered into a multi-year Wildlife Mitigation Plan (associated with Colorado Oil & Gas Conservation Commision 1298 Rules) cooperatively developed by the operator, Colorado Parks and Wildlife

(CPW), and WRFO that is predicated on the use of alternative mitigation practices (i.e., clustered development) that are intended to limit the expanse and duration of development effects imposed on big game and accommodate year-round natural gas development (i.e., exception of big game timing limitations). The project under consideration is within this area of agreement and will be excepted from big game timing limitations.

Cumulative Effects: The immediate project locale is heavily influenced by existing natural gas extraction and processing facilities (see discussion in Special Status Animals and Table 2, Migratory Birds above) and considering the tendency of deer and elk to remain at least 200 meters from human activity in open vegetation types, its installation would have little additive influence on the character or utility of habitats in the support of big game.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Recent big game research has established that big game avoidance of well access roads intensifies (longer distances separating animals from sources of disturbance) with increasing frequency of use. Failure to authorize the proposed facility would forego an opportunity to substantially reduce heavy truck transport of produced water from 570 wells on 95 pads over the life of the project (annual average reduction of up to 43,000 round trips).

Cumulative Effects: Same as above.

Mitigation: None.

Finding on the Public Land Health Standard #3 for Plant and Animal Communities: The lands surrounding the project proposal support considerable oil and gas development activity that detracts from their capacity to support big game winter use functions. However, these impacts derive largely from behavioral response (i.e., habitat disuse from avoidance) to human activity and do not alter the long term prospects for regaining the utility of habitat lost over the course of development. From that perspective and the fact that physical modifications of habitat are relatively minor on a landscape basis (about two percent, disregarding concurrent reclamation), the land health standard is generally met. The project proposal itself is short-term (12 years) relative to the associated producing well pads (several decades), and once abandoned and reclaimed, the site is expected to eventually redevelop forage properties (sagebrush canopies with herbaceous understories) equal to or better than their former state. In the long term and from the landscape perspective, the Proposed Action would have no influence on physical aspects of the land health standard, but would provide the means to substantially reduce avoidance response/habitat disuse across the applicant's field over the 10-year period of development.

CULTURAL RESOURCES

Affected Environment: The proposed water pit and its immediately adjacent access roads and pipelines have been covered by at least four Class III (100 percent pedestrian) inventories (Conner and Davenport 2005, compliance dated 7/12/2005; 2006, compliance dated 9/18/2006; 2012, compliance dated 2/22/2012; and Mills 2013, compliance dated 7/9/2013). There are no

cultural resources located in the immediate construction area of the pit and pipelines. However, there are known cultural resources within 1,000 feet (305 meters) of the pit area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action will not directly affect any known cultural resources. However, there are resources in the area that could be impacted by an increase in human activity in the area, in addition to that which is already occurring, due to development in the area. Indirect impacts could include an increase in any unauthorized collecting that may have or may be occurring as a result of increased activity in the area from development. Increased erosion related impacts are not likely to occur.

If there should be previously undetected subsurface remains in the pit area, they could be seriously impacted by excavation of the pit. Subsurface remains are not considered to be very likely

Cumulative Effects: Should any additional impacts to cultural resources occur as a result of the Proposed Action, there would be an irreversible, irretrievable, and permanent loss of data from the regional archaeological database.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no new impacts to any known cultural resources under the No Action Alternative. There would not necessarily be any increase in human activity in the area as a result of construction and operation of the pit, and there would not be an increased potential for unauthorized collection of artifacts as a result of increased presence in the area for pit and pipeline operation and maintenance.

Cumulative Effects: Thee would be no additional cumulative impacts to cultural resources under the No Action Alternative beyond those that are already occurring, or have already occurred, as a result of previous development in the area.

Mitigation: 1. The holder 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 holder 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 holder, 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 holder 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 holder must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

PALEONTOLOGICAL RESOURCES

Affected Environment: The proposed water storage pit and associated pipelines are located in an area generally mapped as the Uinta Formation (Tweto 1979), which the BLM has classified as a Potential Fossil Yield Classification (PFYC) 5, meaning it is known to produce a variety of vertebrate fossils such as *uintahere sp., halodon, Hyracotherium,* turtles, and various well preserved plant fossils (c.f., Armstrong and Wolny 1989)

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Construction of the water storage pit has the potential to severely impact scientifically noteworthy fossil resources as it involves excavation of up to seventeen feet into the underlying sedimentary rock formation.

Cumulative Effects: Should excavation of the pit result in impacts to any fossil resources there is the potential for a severe, irreversible, irretrievable, and permanent loss of scientific data from the regional paleontological database. Even with the presence of a paleontological monitor during construction some fossils, particularly smaller ones, and paleo-environmental data would be lost during excavation resulting in a loss of important data.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no new construction related impacts to fossil resources under the No Action Alternative. Natural weathering of the formation in the area could continue at a comparatively slow rate resulting in the loss of smaller, more fragile fossils first followed by the weathering, fragmentation, and gradual loss of components, and eventually whole portions, of larger fossils.

Cumulative Effects The loss of fossil resources under the No Action Alternative would be very, very slow as natural weathering continues to occur. The loss would result in the eventual loss of smaller more fragile fossils first followed by the larger fossils as they weather and crumble under the influence of the elements, wildlife, and possible grazing impacts. The loss is so gradual that the loss is not generally considered unacceptable.

Mitigation: 1. The holder is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25 lbs./day, up to 250 lbs./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 holder 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 holder 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: Visual resources are the visible physical features of a landscape that convey scenic value. Scenic values in the BLM White River Resource Area have been classified according to the Visual Resource Management (VRM) system into four Visual Resource Management Classes (I-IV), and VRM objectives were established in the 1997 White River ROD/RMP. VRM Class I is the most restrictive with VRM Class IV being the least restrictive. The Proposed Action is located within a VRM Class III area. The objective of the VRM III classification is to partially retain the existing character of the landscape. The level of change to the characteristic landscape could be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The Proposed Action is located adjacent to graveled Rio Blanco County (RBC) Road 83 (Bar D Mesa), the key observation point, which is located on top of a nearly flat gentle rolling ridge which separates the Piceance Creek drainage on the east from the Yellow Creek drainage on the west. The existing character of the landscape is somewhat natural with several oil and gas related developments, such as well pads, access roads, pipeline corridors, and associated support facilities, modifying the natural landscape in the area. The panoramic-type landscape and dominant form visual element is defined by the gentle flat rolling ridge that RBC Road 83 is located along. Dark green scattered pinyon/juniper on the slopes contrasting with the exposed buff colored soils provides the dominant texture element to the landscape.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The initial disturbance during construction, which includes access/work area, associated tank area, and excess soil stockpile area, required to construct the water recycling pit is expected to be 7.61 acres. The exposed soils created by this construction activity and associated linear road and water line disturbance will create short-term moderate impacts to the landscape characteristics from the key observation point of RBC Road 83 for an anticipated 60-90 days during the summer/fall of 2013. Temporary above ground structures and

support vehicles may cause moderate short term impacts to visuals resources, but the duration is expected not to last longer than the 60-90 days for the initial construction period. After interim reclamation is completed, this disturbed area will be reduced to approximately 3.20 acres for the 12 year anticipated life of the project. Above ground structures could cause a moderate long-term impact to the visual resources if not mitigated. To reduce this impact, the recommended mitigation is to paint all permanent above ground structures (on-site for six months or longer) including tanks, production equipment, filter presses, and any piping and valves Juniper Green according to the BLM Standard Environmental Chart CC-001: June 2008. Overall, the Proposed Action will result in weak long-term impacts to visual resources, but the existing character of the landscape will be retained.

Cumulative Effects: Combined with other existing, ongoing, and foreseeable oil and gas development activities in the area, the Proposed Action may begin to contribute to an increasingly impacted visual landscape.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Because no ROW would be granted, and the proposed facility and water line would not be constructed and the existing access road would not be used, there would be no impacts to visual resources as a result of this alternative.

Cumulative Effects: None identified as a result of this project.

Mitigation: Paint all permanent above ground structures (on-site for six months or longer) Juniper Green according to the BLM Standard Environmental Chart CC-001: June 2008.

HAZARDOUS OR SOLID WASTES

Affected Environment: Existing levels of hazardous materials that occur within the boundaries of the project area are unknown. However, there are no known hazardous or other solid wastes on the subject lands. Moreover, 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:

Direct and Indirect Effects: The proposed activities will use regulated materials and will generate some solid and sanitary wastes. The potential for harm to human health or 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 which may result in the release of hazardous materials into the environment.

The proposed activities may pose direct and indirect impacts to soil, water, air, and biological resources that occur in close proximity to individual disturbance features. Impacts to these resources may also occur at farther distances from individual disturbance features, though it is assumed that these impacts would be reduced because of proximity to the point source. Accidents and mechanical breakdown may also have direct and indirect effects to resources

depending on the type of accidents or mechanical breakdown and when and where the occur temporally and spatially

Cumulative Effects: Effects to soil, water, air, and biological resources as a result of cumulative release of hazardous materials into the environment are unknown. Because some hazardous substances persist in the environment, it is reasonable to assume that multiple activities that may occur throughout the project area that result in the release of individual hazardous material spills or discharge events, may cumulatively result in impacts to soil, water, air, and biological resources.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: In the No Action Alternative the construction of the water recycling pit, associated access road, and water pipelines would not occur, however the potential for harm to human health or the environment including risks associated with spills of fuel, oil and/or hazardous substances during oil and gas operations could still occur because water would be trucked for use in drilling completions operations.

Cumulative Effects: Cumulative effects are the same as those analyzed in the Proposed Action in terms of the type of disturbance. In terms of duration and extent, however, this alternative would most likely result in reduced cumulative impacts because of the existing development in the project area, rather than the new water recycling pit, pipelines, and access road.

Mitigation: 1. Comply with all Federal, State and/or local laws, rules and regulations, including but not limited to onshore orders and notices to lessees, 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. All spills or leakages of oil, gas, produced water, toxic liquids or waste materials, blowouts, fires, shall be reported by the operator in accordance with the regulations and as prescribed in applicable orders or notices.

2. All right-of-way holders shall comply with all federal, state and/or local laws, rules, and regulations, including but not limited to onshore orders and notices to lessees, 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.

3. Where required by law or regulation to develop a plan for the prevention of releases or the recovery of a release of any substance that poses a risk of harm to human health or the environment, the holder shall provide a current copy of said plan to the BLM WRFO.

4. Through all phases of oil and gas exploration, development, and production, all holders of rights-of-way shall employ, maintain, and periodically update to the best available technology(s) aimed at reducing: 1) emissions, 2) fresh water use, and 3) utilization, production, and release of hazardous material.

5. All substances that pose a risk of harm to human health or the environment shall be stored in appropriate containers. Fluids that pose a risk of harm to human health or the environment,

including but not limited to produced water, shall be stored in appropriate containers and in secondary containment systems at 110% of the largest vessel's capacity. Secondary fluid containment systems, including but not limited to tank batteries shall be lined with a minimum 24 mil impermeable liner.

6. 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.

7. As a reasonable and prudent right-of-way holder in the oil and gas industry, acting in good faith, all right-of-way holders 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 BLM WRFO (970) 878-3800.

8. As a reasonable and prudent right-of-way holder in the oil and gas industry, acting in good faith, all right-of-way holders 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 right-of-way 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 BLM WRFO may take measures to clean-up and test air, water (surface and/or ground), and soils at the holder's expense. Such action will not relieve the holder of any liability or responsibility.

9. With the acceptance of this authorization, the commencement of operations under this authorization, or within thirty calendar days from the issuance of this authorization, whichever occurs first, and during the life of the pipeline, the right-of-way holder, and through the right-of-way holder, its agents, employees, subcontractors, successors and assigns, stipulate and agree 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.

FIRE MANAGEMENT

Affected Environment: The Proposed Action is located within the B6 Yellow Creek fire management unit. This polygon consists of Wyoming big sagebrush, greasewood, and pinyon/ juniper woodlands. A modified suppression strategy may be utilized where the potential to burn less than 200 acres in pinyon/juniper or sagebrush exists. This strategy may promote a vegetation mosaic representing natural distributions of plant communities of varying successional stages. Local preparedness levels and proximity to infrastructure may limit fire management strategies to direct control by full suppression. The fire regime/condition class for this fire management polygon is currently at a two, or is land considered to have been moderately altered from its historical fire return interval.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: During a wildfire event, the primary objective is firefighter and public safety. While in the construction phase of the proposed project, the appropriate management response may be full suppression. Stock piled vegetation, which is stored on site for future purposes, creates jack pots of fuel which are susceptible to fire brands. A direct effect of the proposed project would be the temporary suspension of the use of naturally ignited fire to meet multiple resource management objectives. Once the project is complete, the man-made vegetation breaks would alter the behavior of wildfires in the area and help to create areas that may be suitable for use as fire breaks to help control wildfires.

Cumulative Effects: A continued increase in natural gas development within the area may cause difficulties in full implementation of the Northwest Colorado Fire Program Area Fire Management Plan. Only when operations decrease will fire and resource managers allow naturally ignited fire to create a vegetation mosaic representing various plant communities in different successional stages.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: No vegetation alteration or construction would occur under this alternative. Due to the known frequency of natural fire ignitions in the area of the proposed project, fire may again impact the site in 35 to 100 years. This natural return interval could return the site to a fire regime/condition class one.

Cumulative Effects: Without new oil and gas development and infrastructure, there would be less human related vegetation breaks which, when combined with natural mosaic vegetation patterns, have been used to contain fires in the past. This could lead to increased future fire suppression costs.

Mitigation: When working on lands administered by the BLM WRFO, notify Craig Interagency Dispatch (970-826-5037) in the event of any fire.

a) The reporting party will inform the dispatch center of fire location, size, status, smoke color, aspect, fuel type, and provide their contact information.

b) The reporting party, or a representative of, should remain nearby, in a safe location, in order to make contact with incoming fire resources to expedite actions taken towards an appropriate management response.

c) The applicant and contractors will not engage in any fire suppression activities outside the approved project area. Accidental ignitions caused by welding, cutting, grinding, etc. will be suppressed by the applicant only if employee safety is not endangered and if the fire can be safely contained using hand tools and portable hand pumps. If chemical fire extinguishers are used the applicant must notify incoming fire resources on extinguisher type and the location of use.

d) Natural ignitions caused by lightning will be managed by Federal fire personnel. The use of heavy equipment for fire suppression is prohibited, unless authorized by the Field Office Manager.

e) Piled vegetation retained for reclamation as part of forest management mitigations shall be located at least twenty five feet from other receptive fuels.

FOREST MANAGEMENT

Affected Environment: The Proposed Action is located within productive exposure stand classes of pinyon/juniper woodlands as defined by a survey performed during 2003-2005 by White River Field Office personnel. Productive exposure types occur on primarily lower gradient slopes and on north and east aspects. Growth rates are higher in these areas due to soil features which allow for effective use of precipitation. This habitat type is further broken down based on the age class of the stand. In this case the affected stands are both mature and young. Mature pinyon/juniper trees on productive exposure establish themselves as the dominant plant community on the site. Young pinyon/juniper trees are a component of the plant community or encroach into sagebrush and mountain shrub communities in the absence of reproduction through time and will eventually establish as the dominant plant community. Mature stands are valuable locally as a source of fire wood. Encroachment sites of young pinyon trees are valuable for Christmas tree harvest and posts for fence construction.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Table 6 shows the estimated loss of woodland acres as a result of the Proposed Action. Following reclamation, it is expected that pinyon/juniper would invade the site within 50-70 years and would develop a mature stand within 200-300 years. Under the Proposed Action about 6.78 acres of woodlands would be removed. Impacts would be long-term until woodlands regenerate successfully.

Table 6. Estimated Loss of Woodland Acres

Project Name	Acreage In Woodlands		
	Acres Disturbed (Total)	Stand Class	Total Cords
WPX NE Ryan Gulch Water Recycling Pit	6.78	Pinyon Juniper /Productive Mature/Young	33.9

Cumulative Effects: Removal of mature and middle-aged pinyon/juniper trees would reduce the potential for outbreak of woodland diseases and pest infestations. By reducing the stand size of juniper trees in areas historically included in sagebrush and grass communities, it would increase the open areas preferred as foraging areas by wildlife and livestock. Acceptance of mitigation measures would reduce the build-up of cleared woody material from the project area, reducing the likelihood of slash contributing to a possible large fire.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under this alternative there would be no construction of a water recycling pit through pinyon/juniper woodlands, and no damage to the woodlands would occur.

Cumulative Effects: If no water recycling pit is constructed, the pinyon/juniper woodland would continue to mature and would eventually become an old growth stand.

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

a) First, woody material will be chipped and stockpiled for later use in reclamation. Woods chips can be incorporated into the topsoil layer to add an organic component to the soil to aid in reclamation success.

b) Woody materials, not used for woods chips, required for reclamation shall be removed in whole with limbs intact and shall be stockpiled along the margins of the authorized use area separate from the topsoil piles. Once the disturbance has been recontoured and reseeded, stockpiled woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20-30 percent ground cover. Limbed material shall be scattered across reclaimed areas in a manner that avoids the development of a mulch layer that suppresses growth or reproduction of desirable vegetation. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.

c) Woody materials that are to be stockpiled along margins and not used in the topsoil should not exceed pile dimensions of 8 ft x 8 ft x 8 ft. Materials used in the stockpiles should be a variety of diameters, but should be no smaller than six inches in diameter. Additionally the piles should be no less than 30 feet apart.

d) Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of six inches or less prior to other heavy equipment operation. These trees shall be cut in four foot lengths (down to four inches diameter) and placed in manageable stacks immediately adjacent to a public road to facilitate removal for company use or removal by the public.

e) During pad, road, and pipeline layout, consideration will be given to maintaining old-growth stands in their entirety. Old-growth stands will be those with trees containing individuals of age greater than 300 years and having old-growth stature and development.

RANGELAND MANAGEMENT

Affected Environment: The Proposed Action occurs just inside the Horse Draw pasture of the Square S allotment (06027). The Square S allotment is permitted to both the LOV Ranch and the Mantle Ranch for livestock grazing totaling 3,522 AUMs. An AUM is the amount of forage required to sustain a cow and her calf for a one month period. The Horse Draw pasture is grazed yearly in June/July by Mantle Ranch cattle.

Range Improvements: There are two rangeland improvement projects in the immediate area associated with the proposed pit. Range improvement project #0204420, the Yellow Creek pipeline lateral, crosses the proposed pit site. This water pipeline was constructed in 1973 to provide dependable upland water sources for cattle through an approximately 30 square mile area spread through four different pastures and is essential to achieve livestock distribution through these areas. The division fence between the Horse Draw and Upper Yellow Creek pastures lies immediately west of the proposed pit location. This fence is necessary to keep livestock owned by both LOV Ranch and Mantle Ranch in their respective use areas.

The closest long term trend monitoring site is approximately 1,200 feet east of the proposed pit site and should not be affected by this project.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Until construction disturbances are successfully reclaimed there would be a short-term loss of less than one AUM in the Horse Draw pasture. After successful final reclamation, there would likely be a slight increase in forage production until the site progresses to a shrub dominated site. The short-term forage loss within this pasture would be less than the annual fluctuation in forage production and would not be expected to result in any need for changes in livestock numbers or grazing period.

Construction of the proposed pit and associated facilities could interfere with proper functioning of the range improvements near the proposal. The fence and water line in this area are necessary for control of cattle, to achieve grazing objectives in the affected pastures, and to keep cattle from straying into the wrong grazing use area. Damage to fences or gates left open interfere with control of cattle and ultimately, with proper utilization of the rangeland resource. Damage to watering facilities could affect water availability and distribution of livestock, resulting in increased grazing pressure on areas that have water available for livestock. These impacts would be greatest during the construction phases, especially if construction coincides with livestock use of the area in the early summer.

If construction occurs during the period livestock are permitted in this area, they will likely avoid the area adjacent to the Proposed Action during the period of intense noise and activity levels. During this period there is increased risk of injury to livestock. After construction is complete, livestock will likely be minimally affected or even unaffected by the presence of the fenced pit. Though the proposed pit is not near any livestock watering sites, this pasture is grazed yearly during the growing season so livestock grazing use at this time would likely reduce the success of re-vegetation efforts.

Cumulative Effects: Agriculture, road development, and oil and gas development which have the potential to impact rangeland management would continue to occur. The Proposed Action would remove forage temporarily in the above mentioned grazing pastures. After project construction has been completed and grass/forb communities have returned, the Proposed Action would contribute to a slight increase in forage for livestock in the area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no direct and/or indirect effects to rangeland management under the No Action Alternative.

Cumulative Effects: Activities associated with agriculture, road development, and oil and gas development would continue to occur in the area, which has the potential to impact rangeland management by removal of forage, impacts to range improvements, etc.

Mitigation: 1. Prior to any construction, a representative will coordinate with the appropriate WRFO Rangeland Management Specialist (Mary Taylor 970-878-3807) to conduct a field inspection of the rangeland improvement project (water line) and address how to relocate the

waterline and ensure that it is fully functional prior to scheduled grazing use in June of 2014. The holder will repair any future damage caused to this water line caused by operational activities of the pit and associated facilities. Any damage caused to the pasture division fence caused by construction of or use of this pit must be repaired to BLM specifications in a timely manner (to prevent livestock movement between these two pastures).

2. In addition to the chain link fence proposed around the facility, to reduce livestock impacts to seeded areas and seeded soil stockpiles, the holder will install and maintain a four-strand barb wire fence, built to BLM specifications, around the outermost perimeter of disturbed areas including soil piles. This fence should be tied in to the chain link fence to completely exclude livestock. This fence should remain in place for the life of the project but could be removed by WPX after successful final reclamation.

REALTY AUTHORIZATIONS

Affected Environment: The water recycle pit, access road, and associated water pipeline require rights-of-way for the off-unit produced water. Table 7 describes the existing ROWs in the area of the proposed water recycle pit, access road, and water pipeline.

Table 7. Existing ROWs

Case File	ROW Holder	Authorized Use
COC15822	BLM White River Field Office	Road
COC61921	White River Electric Association Inc	Power line
COC75331		Power line
COC75517		Power line *(pending)*
COC65453	Encana Oil & Gas (USA) Inc	Pipeline
COC67980	Enterprise Products	Pipeline
COC70129		
COC67991	Bargath LLC	Pipeline
COC74154		
COC74532		
COC72181	Williams Northwest Pipeline	Pipeline
COC73180	WPX Energy Rocky Mountain LLC	Water line
COC74155		
COC74533		
COC75171		
COC75171-01	WPX Energy Rocky Mountain LLC	Temporary use permit

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Right-of-way (ROW) COC76176, which includes the water recycle pit, the access/work area, associated tank area, and excess soil stockpile area, would contain approximately 7.61 acres. The access road to the water recycle pit (ROW COC76178) would be approximately 2,530 ft long, 30 feet wide, and contain 1.74 acres. The water pipelines (ROW COC76177) would be approximately 1,125 feet long, 30 feet wide, and contain 0.77 acres. The water pipelines would be buried within the access road ROW. The access road and the RGU 31-25-198 well pad would be used as temporary working areas during construction of the water pit and water pipelines. Damage to the facilities or rights of existing ROW holders could

occur if construction activities are not properly planned and other ROW facilities are not properly identified prior to construction. If accurate "as built" mapping is not provided to BLM, conflicts may develop in the future with other ROW holders.

Cumulative Effects: As the number of ROW holders in the project area increases so would competition for suitable locations for facilities. Increased ROW densities would also lead to a higher probability of conflict between ROW users.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Failure to authorize the proposed project would not result in any increased impacts to realty authorizations in the area.

Cumulative Effects: There would not be any cumulative effects from not authorizing the proposed project.

Mitigation: 1. All activities would be required to comply with all applicable local, state, and federal laws, statutes, regulations, standards, and implementation plans. This would include acquiring all required State and Rio Blanco County permits, implementing all applicable mitigation measures required by each permit, and effectively coordinating with existing facility ROW holders.

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

3. Construction activity should take place entirely within the areas authorized in the ROW grants.

4. At least 90 days prior to termination of the ROW, the holder shall contact the AO to arrange a joint inspection of the ROW. The inspection will result in the development of an acceptable termination and rehabilitation plan submitted by the holder. This plan shall include, but is not limited to, removal of facilities, drainage structures, and surface material (e.g., gravel or concrete), as well as final recontouring, spreading of topsoil, and seeding. The Authorized Officer must approve the plan in writing prior to the holder's commencement of any termination activities.

RECREATION

Affected Environment: The proposed project area is located within the White River Extensive Recreation Management Area (ERMA) on BLM lands administered by the WRFO. The WRFO manages the ERMA to provide for unstructured recreation activities and a diversity of outdoor recreation opportunities, including hunting, dispersed camping, hiking, horseback riding, wildlife viewing, and off-highway vehicle (OHV) use, which are to be maintained and protected.

On BLM-administered lands, the Recreation Opportunity Spectrum (ROS) is a classification system and a prescriptive tool used for recreation planning and management. The proposed project area is located in an ROS class of semi primitive motorized (SPM) with an ROS classification of rural natural (RN) on the south side of Rio Blanco County (RBC) Road 83 (Bar D Mesa). The SPM physical, managerial, and social recreation setting is typically characterized by a natural appearing environment with few administrative controls and low interaction between users (but evidence of other users may be present). SPM recreational experience is characterized by a high probability of isolation from the sights and sounds of humans within a setting that offers challenge and risk.

Current recreation activities in the project area include a moderate amount of elk and deer hunting during the fall, with some minimal bear and lion hunting through the fall and winter. The Proposed Action is located in Colorado Parks and Wildlife's Game Management Unit (GMU) 22. Other uses include a low amount of dispersed camping associated primarily with hunting and a low amount of off-highway vehicle (OHV) use of the nearby roads and trails during the summer and fall. In the project area there are two valid special recreation permits (SRP) for commercially guided big game hunting from late August through November, and 11 SRPs for commercially guided mountain lion hunting from late November through April of each year.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: During the construction phase of the Proposed Action, it is anticipated that a short-term increase in traffic along RBC Road 83 will occur. This could affect recreationalists traveling RBC Road 83 to access hunting or OHV opportunities by increasing travel time or negatively affecting the quality of the hunting experience during the construction phase. See the Access and Transportation Section for more information on roads.

The associated construction activity may produce noise that affects the quality of the hunting experience for the short 60-90 day duration of the construction period. After interim reclamation and during the production phase, there will be a loss of 7.6 acres of dispersed hunting. However, it is anticipated that hunters will still be able to gain their desired experience in this area by recreating on adjacent or nearby public lands which are extensive in this area. Overall, the settings and experiences of the SPM ROS classification will be met.

Cumulative Effects: Combined with other existing, ongoing, and foreseeable oil and gas development activities in the area, the Proposed Action may begin to impact recreational opportunities in this area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Because no ROW would be granted and the proposed facility and water line would not be constructed and the existing access road would not be used, there would be no impacts to recreational activities, opportunities, or experiences as a result of this alternative.

Cumulative Effects: None identified as a result of this project.

Mitigation: None.

ACCESS AND TRANSPORTATION

Affected Environment: The Proposed Action is located approximately 20 miles west of Meeker, Colorado. Access to the area requires traveling approximately 20 miles west of Meeker on State Highway 64 to the junction of Rio Blanco County (RBC) Road 5 (Piceance Creek). Then travel 15 miles south on the paved RBC Road 5 to an improved unnumbered oil and gas road that leads approximately 2 miles up to RBC Road 83 and then another mile west on RBC Road 83 to the Proposed Action.

RBC Road 83 currently receives a low amount of use from recreational users, private property owners, grazing permittees, and administrative use, and a moderate amount of use from oil and gas operators. BLM Road 1146 is an existing two-track road that runs from RBC Road 83 just west of the Proposed Action and parallels RBC Road 83 for 0.4 miles and then runs through the center of the Proposed Action and then parallels RBC Road 83 another mile to the intersection with BLM Road 1147. Improved unnumbered oil and gas access roads are located on the east and west of the Proposed Action, and both provide access to existing well pads.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action includes using BLM Road 1146, an existing two-track road, which intersects the access road for the RGU 31-25-198 pad, as the access egress and ingress route for the Proposed Action. The 1,300 ft portion of BLM Road 1146 would be improved and constructed to Gold Book standards and have a 20 ft running surface for total width of 30 ft. To protect public health and safety, WPX would install and maintain gates on both sides of the access road to restrict public use of the access road upon completion of the construction and improvement of the access road. WPX would install and maintain signs stating Authorized Use Only at this gate once the gate is installed. The gates would be left open during the construction phase, but would remain closed after the construction period. The Proposed Action also includes reclaiming this access road upon final abandonment of this project, by ripping it to a depth of 18 inches, unless in solid rock, and then reseeding this portion.

Use of the existing two-track as the access road to serve the water recycling pit indirectly causes the portion of BLM Road 1146 from the intersection of the access road for RGU-31-25-198 well to the intersection of RBC Road 83 (approximately 1,800 ft) to become an isolated route that does not provide unique access to public lands and is essentially redundant with RBC Road 83 and unneeded. The eastern portion of BLM Road 1146 would be re-routed to an improved access road 0.5 miles west off of RBC Road 83, then travel this road for 0.16 miles, and then back onto

the existing BLM Road 1146 (Exhibit B). This proposal improves the transportation system by concentrating motorized vehicle traffic onto one route (RBC Road 83) for approximately 0.5 miles and eliminates a redundant and unneeded route that parallels an existing improved road (RBC Road 83). This action also reduces traffic conflicts between the water recycling pit traffic and other traffic, and is less confusing for those seeking to travel east on BLM Road 1146. Without the portion of BLM Road 1146 reclaimed and re-routed, those traveling BLM 1146 would travel 0.3 miles to the intersection of the access road to RGU-31-25-198 well, then travel 0.07 miles south to RBC Road 83, then travel RBC Road 83 east for 0.2 miles, then travel north on a well pad access road for 0.16 miles to regain BLM Road 1146. To implement this re-route, the portion of BLM Road 1146 from RBC Road 83 to the access road for the RGU-31-25-198 well (0.3 miles or 1,800 ft.) would be reseeded with the appropriate specified reclamation native seed mix. To prevent future motorized vehicle travel on this portion of the reclaimed road, large woody debris be placed on both ends of the reclaimed roads for approximately 100 ft with large native barriers, such as immovable boulders, placed across the entrance/exit of the reclaimed road in a manner to prevent any full-sized motorized vehicles and all-terrain vehicles (ATVs) from traveling this route.

There is also an expected increase in traffic volume on the above described routes during the 60-90 day construction time period during the summer and fall months. This will be short in duration and temporary, but may increase travel times for those traveling in this area during the construction period. There is a potential for roads and routes to be damaged if activities associated with the Proposed Action occurs when roads and routes are saturated. To prevent road damage as a result of use of these roads when they are saturated, it is recommended that all activity cease when soils or roads surfaces become saturated to a depth of three inches. All roads and access improvements are required to conform to the BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, Fourth Edition-Revised 2007, with further guidance in BLM Manual 9113-Roads Manual and BLM Manual 9130-Sign Manual. After construction, it is anticipated that there will be a minor, incremental increase in traffic for the 12 year life of the Proposed Action.

Cumulative Effects: Combined with other oil and gas activities in the area and the other motorized vehicle use in the area, the Proposed Action would incrementally increase traffic volumes and use of the area roads. Most of the traffic is anticipated during the 60-90 construction time with minor traffic during the rest of the anticipated 12 year life of the project. By re-routing a portion of BLM Road 1146, the transportation system is improved by reducing a redundant route, reducing conflicts with the water recycling pit egress/ingress traffic, and providing clearer travel routes to access public lands.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: By not constructing the water recycling pit, the travel and transportation system remains the same. This includes having the redundancy of BLM Road 1146 and RBC Road 83 in this particular area. Traffic volumes and travel times would not be affected and access to public lands would remain the same.

Cumulative Effects: None identified.

Mitigation: All activity shall cease when soils or roads surfaces become saturated to a depth of three inches unless approved by the Authorized Officer.

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TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED:

State Historic Preservation Office and Rio Blanco County

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	8/2/2013
Heather Woodruff	Rangeland Management Specialist	Areas of Critical Environmental Concern; Special Status Plant Species	7/3/2013
Heather Woodruff	Rangeland Management Specialist	Forest Management	7/18/2013
Michael Selle	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	7/24/2013
Mary Taylor	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	8/7/2013
Ed Hollowed	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	8/13/2013
Stacey Burke	Realty Specialist	Hazardous or Solid Wastes	8/6/2013
Aaron Grimes	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	7/24/2013
Kyle Frary	Fuels Specialist	Fire Management	7/15/2013
Paul Daggett	Mining Engineer	Geology and Minerals	8/6/2013
Stacey Burke	Realty Specialist	Realty	7/17/2013
Melissa J. Kindall	Range Technician	Wild Horse Management	7/31/2013
Stacey Burke	Realty Specialist	Project Lead – Document Preparer	8/30/2013

Name	Title	Area of Responsibility	Date Signed
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	9/11/2013

ATTACHMENTS:

Exhibit A - Map of the Proposed Action
Exhibit B - Construction Plan
Exhibit C - BLM Road 1146 Reclamation and Reroute

WPX NE Ryan Gulch Water Recycling Pit, Access Road, and Water Pipelines
T1N, R98W, sec. 24 and 25

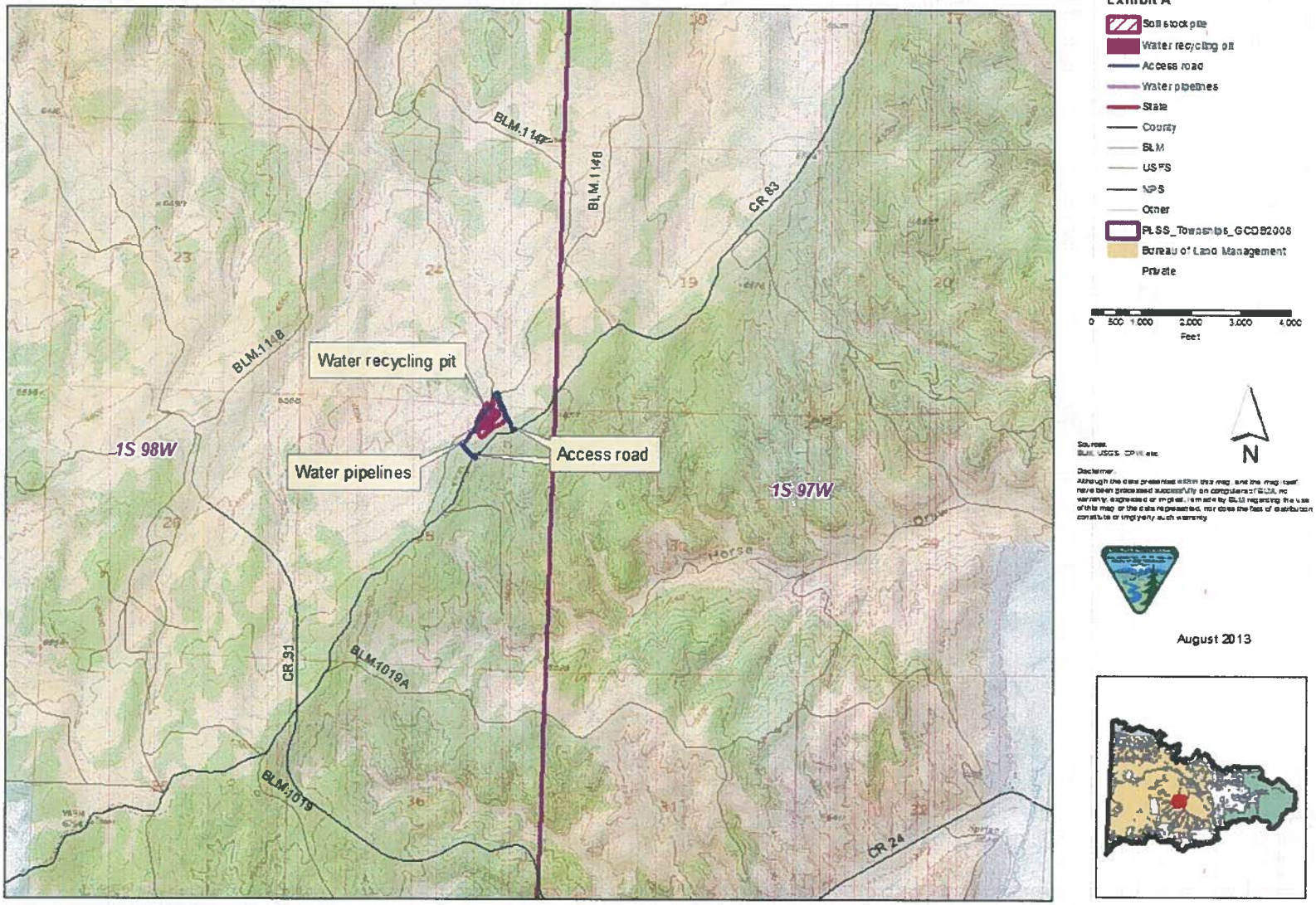


Exhibit B – Construction Plan

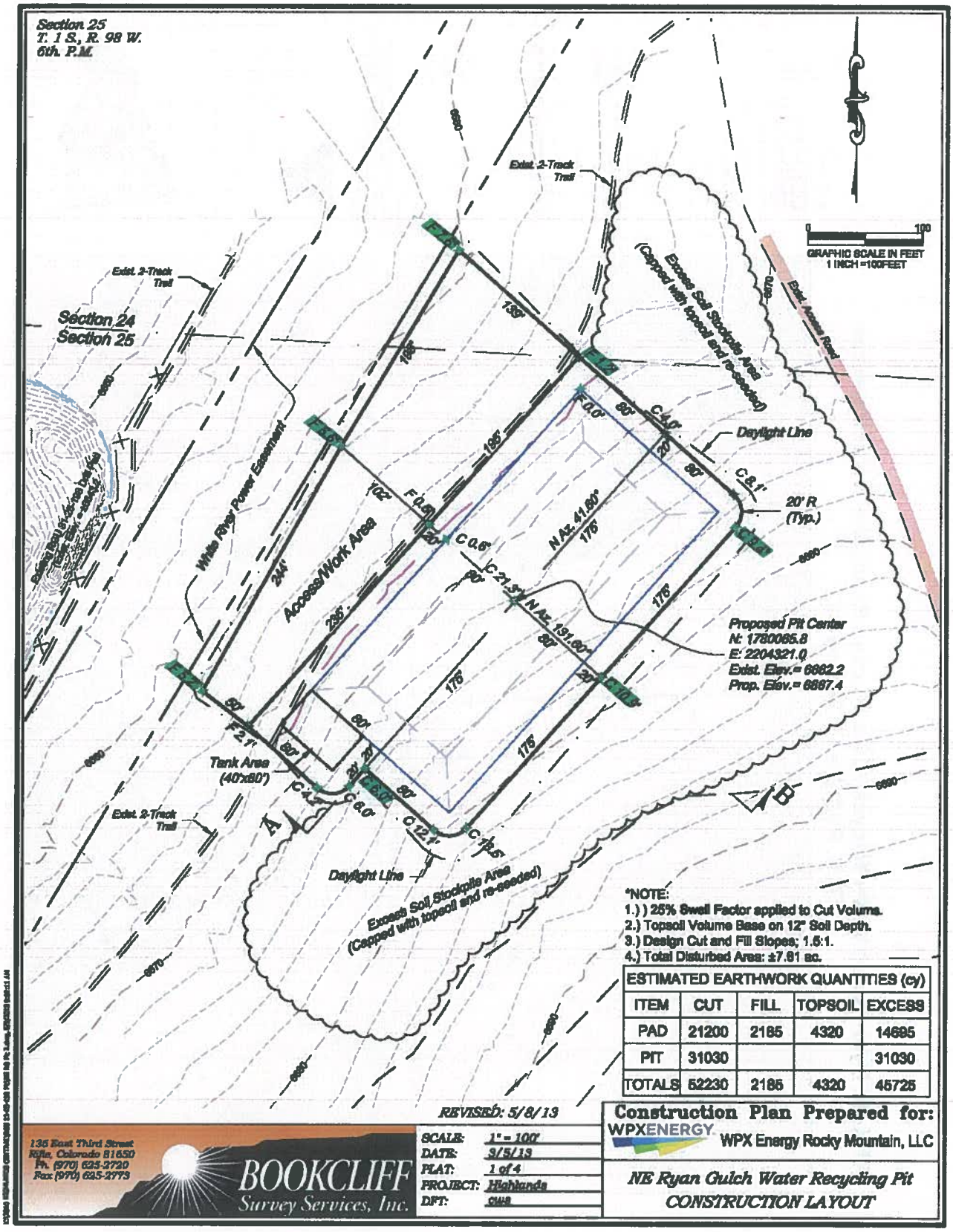
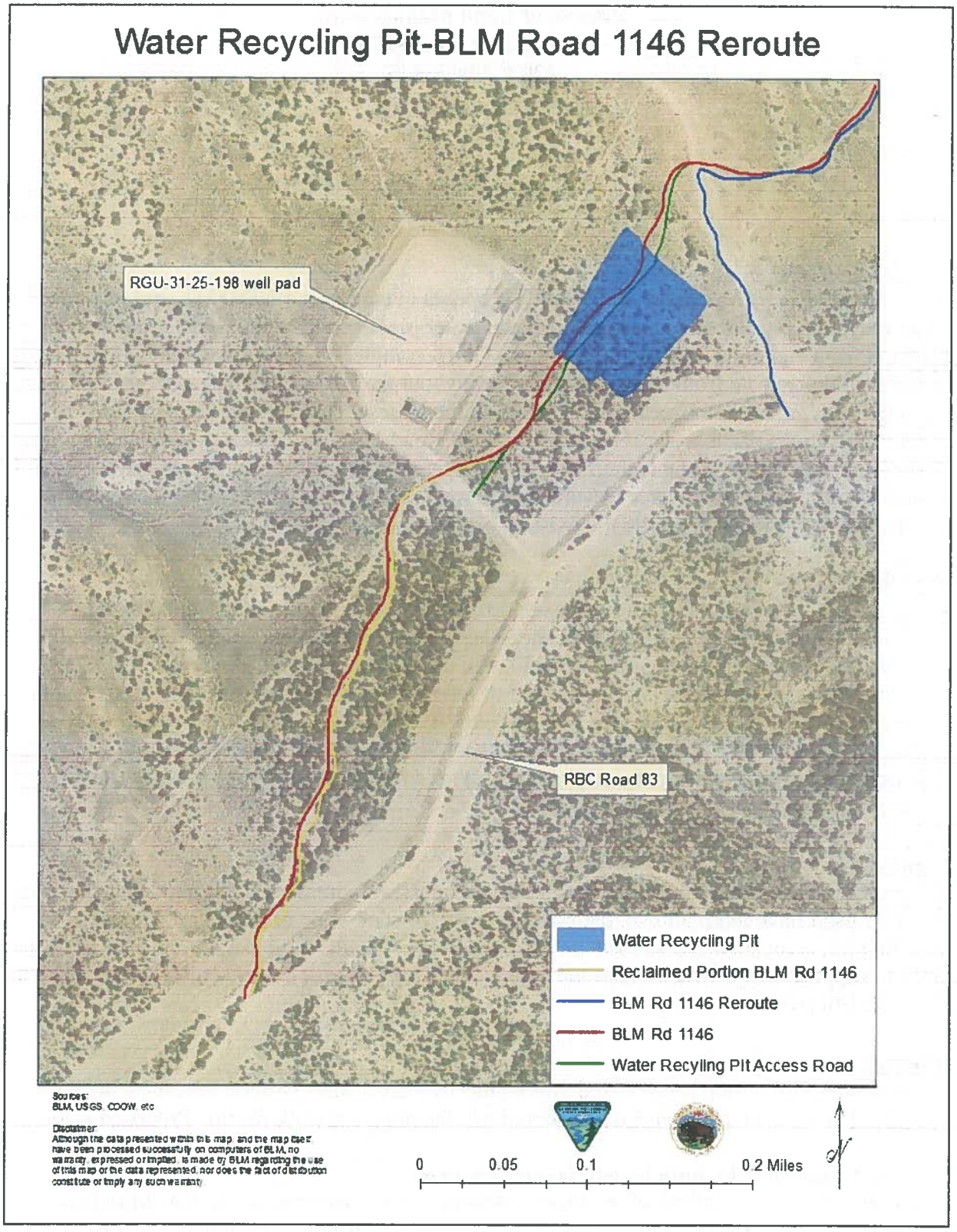


Exhibit C – BLM Road 1146 Reclamation and Reroute



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-110-2013-0098-EA

BACKGROUND

WPX Energy Rocky Mountain LLC (WPX) proposes to construct a 100,000 barrel (bbl) lined water recycling pit, associated access road, and water pipelines. The pit would contain water gathered from and to be recycled during Ryan Gulch completion and production operations. Water would originate from and be recycled throughout the Ryan Gulch Asset (Ryan Gulch, Ryan Gulch Unit, Barcus Creek Unit, and Sandridge leases). There would be eight tanks to support operations of the water recycling pit. BLM Road 1146 would be re-routed and a portion of the existing road would be reclaimed while a separate portion of the existing road would be improved for access to the water recycling pit. Two water pipelines would be constructed to connect the water recycling pit to the existing buried pipeline system.

FINDING OF NO SIGNIFICANT IMPACT

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action 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 Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (1996). 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. The water recycling pit, associated access road, and water pipelines would be in use for approximately 12 years to support completions operations in the Ryan Gulch area. The site would be reclaimed to BLM specifications.

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.

Beneficial and adverse effects of the Proposed Action were described in the EA. Mitigating measures to reduce potential short-term impacts to soils, distribution of invasive non-native species, special status species, and paleontology were incorporated. The water recycling pit

would reduce truck traffic and fugitive dust associated with water trucking operations. The large water storage tanks located on the RGU 13-36-198 and RG 12-14-298 well pads would be decommissioned. None of the environmental effects discussed in the EA are considered significant.

2. The degree to which the Proposed Action affects public health or safety.
There would be no impact to public health and safety if the safety measures described in the applicant's plan of development are properly implemented, and the developed mitigation is adhered to.

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.
No wetlands, prime farmlands, parklands, or scenic rivers occur in the project area. A Class III Cultural Resource inventory identified no eligible cultural resources in the proposed areas of disturbance.

4. Degree to which the possible effects on the quality of the human environment are likely to be highly controversial.
The decision for issuing rights-of-way is not unique. Right-of-way decisions have been made in this area by this field office for many years. No comments or concerns have been received regarding possible effects on the quality of the human environment during the public comment period.

5. Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk.
The project is not unique or unusual in this area. The BLM has been making decisions on similar actions for many years. 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 was considered in the context of past, present, and reasonably foreseeable actions. The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. Similar proposals for centralized facilities for water storage, handling, transport, and disposal have been evaluated and approved, so the authorization of the lined water recycling pit and associated facilities would not set a precedent for future actions. Onshore Oil and Gas Order No. 7 specifies the design, construction, and maintenance requirements for pits. WPX has provided maps and drawings of the site, materials and methods for lining the pit, and quantity of water to be recycled. WPX proposes to fence the pit and clean the water before it enters the pit. COGCC approval would also be obtained prior to construction of the pit.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.
The Proposed Action was considered in the context of past, present, and reasonably foreseeable actions. No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.

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.
Inventories have been completed for historic and cultural resources in the area and potential impacts to districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or potential loss or destruction of significant scientific, cultural, or historic resources have been identified. Mitigation developed through consultation with SHPO has been provided to protect any cultural resources and potential adverse effects have been mitigated. If any previously unknown cultural resources are located during construction of the Proposed Action, construction would stop and the BLM would be notified.

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.
No endangered or threatened species or its habitat will be adversely affected as a result of this Proposed Action.

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: Kent E. Walter
Field Manager

DATE SIGNED: 09/19/13

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: WPX NE Ryan Gulch Water Recycling Pit

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-CO-110-2013-0098-EA

DECISION

It is my decision to implement the Proposed Action (Alternative A), as mitigated in DOI-BLM-CO-110-2013-0098-EA, authorizing the construction, operation, and maintenance of a water recycling pit, associated access road, and water pipelines for storing water to support completions operations and promote water recycling.

Mitigation Measures

1. The holder will limit unnecessary emissions from point or nonpoint pollution sources and prevent air quality deterioration from necessary pollution sources in accordance with all applicable state, federal and local air quality law and regulation.

2. The holder will treat all access roads with water and/or a chemical dust suppressant during construction and operation activities so that there is not a visible dust trail behind vehicles. Any technique other than the use of freshwater as a dust suppressant on BLM lands will require prior written approval from BLM.

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

4. All construction activity shall cease when soils or road surfaces become saturated to a depth of three inches unless approved by the Authorized Officer.

5. The access road should be constructed as an all-weather surface due to the likely traffic that would occur to this site. This all-weather surface should be maintained through the life of the water recycling pit.

6. The soil excess pile will be seeded and an erosion control fabric or mulch will be applied after seeding to stabilize the surface and enhance the establishment of vegetation after construction of the pit.

7. To protect surface waters below the project area, the holder shall keep road inlet and outlet ditches, sediment retention basins, and culverts free of obstructions, particularly before and during spring run-off and summer convective storms. The holder shall provide adequate drainage spacing to avoid accumulation of water in ditches or on road surfaces.

8. The holder shall install culverts and low-water crossings with adequate armoring of inlet and outlet. The holder shall patrol areas susceptible to road or watershed damage during periods of high runoff.

9. The holder shall locate drainage dips and drainage ditches in such a manner as to avoid discharge onto unstable terrain such as headwalls or slumps. The holder shall provide adequate spacing to avoid accumulation of water in ditches or dips.

10. To reduce erosion and minimize noxious weed establishment, all areas of the disturbance, where it is not necessary to keep the area free of vegetation, shall be seeded with the recommended seed mix below.

11. All seed used must be certified and free of noxious weeds. All seed tags will be submitted to the designated Realty Specialist within 14 calendar days from the time the seeding activities have ended. Documentation shall be provided with the seed tags to address the purpose of the seeding activity (i.e., seeding of re-contoured areas) and, if applicable, the name and contact information of the contractor who performed the work, the seeding method (e.g., broadcast, hydro-seeded, drilled), an as-built shape-file of the area seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.

12. Construction equipment shall be cleaned prior to entering public land at a location and in a manner that does not result in further weed spread.

13. BLM recommends Standard Seed Mix 2 for all reclamation activities. Seeding rates are shown for drill seeding rates (Table 5) and should be doubled for broadcast application. Seed should be applied anytime between mid-September and mid-March. If an alternate date of seeding is requested, contact the designated Realty Specialist prior to seeding for approval. Seed mixture rates are Pure Live Seed (PLS) pounds per acre. Topsoil stockpiles must be seeded immediately as part of Phase I interim reclamation.

Table 5. Native Seed Mix 2

Variety	Common Name	Scientific Name	Rate (Lbs. PLS/acre)
Arriba	Western wheatgrass	*Pascopyrum smithii*	4
Whitmar	Bluebunch wheatgrass	*Pseudoroegneria spicata*	4
Rimrock	Indian ricegrass	*Achnatherum hymenoides*	3.5
Lodorn	Green Needlegrass	*Nassella viridula*	2.5
Timp	Northern Sweetvetch	*Hedysarum boreale*	3
	Scarlet Globemallow	*Sphaeralcea coccinea*	0.5

14. If, after three growing seasons, the following success criteria are not achieved, then the steps will be reassessed in consultation with the BLM WRFO and additional seeding at an appropriate seeding window will occur. Success criteria to achieve:

- Vegetation monitoring (method approved by the BLM) reveals vegetation with eighty percent similarity of desired foliar cover, bare ground, and shrub and or forb density in relation to the identified DPC. In the absence of specified DPC data, an agreed upon reference site or AIM data would serve as the DPC. Vegetative cover values for woodland or shrubland sites are based on the capability of those sites in an herbaceous state.
- The resulting plant community must have composition of at least five desirable plant species, and no one species may exceed 70 percent relative cover to ensure that site species diversity is achieved. Desirable species include native species from the surrounding site, species listed in the range/ecological site description, or species from the BLM approved seed mix.

15. A Reclamation Status Report will be submitted electronically to the WRFO annually (due January 1st) until it is determined that reclamation of the site has met all required objectives of that particular reclamation phase. Every third year, a vegetation monitoring report should accompany the status report. The reclamation status report will be submitted electronically via the most current data management system. Contact your WRFO project lead (NRS/Realty Specialist) with any questions. Any changes to the project status or related information can also be provided through the most current data management system.

- The Reclamation Status Report will include the ROW number, legal description, UTM coordinates, project description, date seeded, photos of the reclaimed site taken from permanent photo points, estimate of acres seeded, seeding method (e.g., broadcast, drilled, hydro-seeded, etc.), a diagram showing where reclamation has occurred with photo points identified and noted, additional notes as needed, and contact information for the person responsible for developing the report.

16. Final reclamation for abandonment of the site will use the seed mix and reclamation practices recommended by BLM at that time.

17. The holder will implement an integrated weed management plan according to BLM manual 9015-Integrated Weed Management (BLM 1992) and maintain this treatment through approval of final reclamation of the project. Prior to the season of construction, the holder shall submit Pesticide Use Proposals for the use of herbicides appropriate for control/eradication of the known noxious and invasive nonnative species.

18. The holder 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.

19. 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 holder 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 holder, 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.

20. Pursuant to 43 CFR 10.4(g), the holder 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 holder must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

21. The holder 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 25 lbs./day, up to 250 lbs./year), or collecting fossils for commercial purposes on public lands.

22. If any paleontological resources are discovered as a result of operations under this authorization, the holder 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 holder 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.

23. 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.

24. The holder shall paint all permanent above ground structures (on-site for six months or longer) Juniper Green according to the BLM Standard Environmental Chart CC-001: June 2008.

25. The holder shall comply with all Federal, State and/or local laws, rules and regulations, including but not limited to onshore orders and notices to lessees, 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. All spills or leakages of oil, gas, produced water, toxic liquids or waste materials, blowouts, fires, shall be reported by the operator in accordance with the regulations and as prescribed in applicable orders or notices.

26. All right-of-way holders shall comply with all federal, state and/or local laws, rules, and regulations, including but not limited to onshore orders and notices to lessees, 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.

27. 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, the holder shall provide a current copy of said plan to the BLM WRFO.

28. Through all phases of oil and gas exploration, development, and production, all holders of rights-of-way shall employ, maintain, and periodically update to the best available technology(s) aimed at reducing: 1) emissions, 2) fresh water use, and 3) utilization, production, and release of hazardous material.

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

30. 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.

31. As a reasonable and prudent right-of-way holder in the oil and gas industry, acting in good faith, all right-of-way holders 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 BLM WRFO (970) 878-3800.

32. As a reasonable and prudent right-of-way holder in the oil and gas industry, acting in good faith, all right-of-way holders 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 right-of-way 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 BLM WRFO may take measures to clean-up and test air, water (surface and/or ground), and soils at the holder's expense. Such action will not relieve the holder of any liability or responsibility.

33. With the acceptance of this authorization, the commencement of operations under this authorization, or within thirty calendar days from the issuance of this authorization, whichever occurs first, and during the life of the pipeline, the right-of-way holder, and through the right-of-

way holder, its agents, employees, subcontractors, successors and assigns, stipulate and agree 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.

34. When working on lands administered by the BLM WRFO, notify Craig Interagency Dispatch (970-826-5037) in the event of any fire.

a) The reporting party will inform the dispatch center of fire location, size, status, smoke color, aspect, fuel type, and provide their contact information.
b) The reporting party, or a representative of, should remain nearby, in a safe location, in order to make contact with incoming fire resources to expedite actions taken towards an appropriate management response.
c) The holder and contractors will not engage in any fire suppression activities outside the approved project area. Accidental ignitions caused by welding, cutting, grinding, etc. will be suppressed by the holder only if employee safety is not endangered and if the fire can be safely contained using hand tools and portable hand pumps. If chemical fire extinguishers are used the holder must notify incoming fire resources on extinguisher type and the location of use.
d) Natural ignitions caused by lightning will be managed by Federal fire personnel. The use of heavy equipment for fire suppression is prohibited, unless authorized by the Field Office Manager.
e) Piled vegetation retained for reclamation as part of forest management mitigations shall be located at least twenty five feet from other receptive fuels.

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

a) First, woody material will be chipped and stockpiled for later use in reclamation. Woods chips can be incorporated into the topsoil layer to add an organic component to the soil to aid in reclamation success.
b) Woody materials, not used for woods chips, required for reclamation shall be removed in whole with limbs intact and shall be stockpiled along the margins of the authorized use area separate from the topsoil piles. Once the disturbance has been recontoured and reseeded, stockpiled woody material shall be scattered across the reclaimed area where the material originated. Redistribution of woody debris will not exceed 20-30 percent ground cover. Limbed material shall be scattered across reclaimed areas in a manner that avoids the development of a mulch layer that suppresses growth or reproduction of desirable vegetation. Woody material will be distributed in such a way to avoid large concentrations of heavy fuels and to effectively deter vehicle use.
c) Woody materials that are to be stockpiled along margins and not used in the topsoil should not exceed pile dimensions of 8 ft x 8 ft x 8 ft. Materials used in the stockpiles should be a variety of diameters, but should be no smaller than six inches in diameter. Additionally the piles should be no less than 30 feet apart.
d) Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of six inches or less prior to other heavy equipment operation. These trees shall be cut in four foot lengths (down to four inches diameter)

and placed in manageable stacks immediately adjacent to a public road to facilitate removal for company use or removal by the public.

e) During pad, road, and pipeline layout, consideration will be given to maintaining old-growth stands in their entirety. Old-growth stands will be those with trees containing individuals of age greater than 300 years and having old-growth stature and development.

36. Prior to any construction, a representative will coordinate with the appropriate WRFO Rangeland Management Specialist (Mary Taylor 970-878-3807) to conduct a field inspection of the rangeland improvement project (water line) and address how to relocate the waterline and ensure that it is fully functional prior to scheduled grazing use in June of 2014. The holder will repair any future damage caused to this water line caused by operational activities of the pit and associated facilities. Any damage caused to the pasture division fence caused by construction of or use of this pit must be repaired to BLM specifications in a timely manner (to prevent livestock movement between these two pastures).

37. In addition to the chain link fence proposed around the facility, to reduce livestock impacts to seeded areas and seeded soil stockpiles, the holder will install and maintain a four-strand barb wire fence, built to BLM specifications, around the outermost perimeter of disturbed areas including soil piles. This fence should be tied in to the chain link fence to completely exclude livestock. This fence should remain in place for the life of the project but could be removed by WPX after successful final reclamation.

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

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

40. Construction activity should take place entirely within the areas authorized in the ROW grants.

41. At least 90 days prior to termination of the ROW, the holder shall contact the AO to arrange a joint inspection of the ROW. The inspection will result in the development of an acceptable termination and rehabilitation plan submitted by the holder. This plan shall include, but is not

limited to, removal of facilities, drainage structures, and surface material (e.g., gravel or concrete), as well as final recontouring, spreading of topsoil, and seeding. The Authorized Officer must approve the plan in writing prior to the holder's commencement of any termination activities.

COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN

This decision is in compliance with 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-2013-0098-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 external and internal issues related to the Proposed Action. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on June 18, 2013. External scoping was conducted by posting this project on the White River Field Office's (WRFO's) on-line National Environmental Policy Act (NEPA) register on June 21, 2013. As of August 30, 2013, no comments have been received.

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. Additionally, authorization to construct the water recycling pit, associated access road, and water pipelines would allow the storage and recycling of water to support completions operations.

ADMINISTRATIVE REMEDIES

This decision shall take effect immediately upon the date it is signed by the Authorized Officer and shall remain in effect while any appeal is pending unless the Interior Board of Land Appeals issues a stay (43 CFR 2801.10(b)). Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a Notice of Appeal must be filed in the office of the Authorized Officer at White River Field Office, 220 East Market St., Meeker, CO 81641 with copies sent to the Regional Solicitor, Rocky Mountain Region, 755 Parfet St., Suite 151, Lakewood, CO 80215, and to the Department of the Interior, Board of Land Appeals, 801 North Quincy St., MS300-QC, Arlington, VA, 22203. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals at the above address within 30 days after the Notice of Appeal is filed with the Authorized Officer.

SIGNATURE OF AUTHORIZED OFFICIAL: Kent T. Walter

Field Manager

DATE SIGNED: 09/19/13