

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

ENVIRONMENTAL ASSESSMENT (EA)

NUMBER: DOI-BLM-CO-110-2013-0084- EA

CASEFILE/PROJECT NUMBER: COC-60732

COC76121 (Bargath natural gas pipeline Right of Way (ROW) for Ryan Gulch Unit (RGU) 42-26-198)

COC76121-01 (Bargath Temporary Use Permit for RGU 42-26-198)

COC76154 (Bargath natural gas pipeline ROW for RGU 43-23-198)

COC76154-01 (Bargath Temporary Use Permit for RGU 43-23-198)

APPLICANT: WPX Energy Rocky Mountain LLC (WPX)

PROJECT NAME: WPX Wells on Federal RGU 42-26-198 and RGU 43-23-198 Well Pads

LEGAL DESCRIPTION: T. 1 S., R. 98 W., Sec. 26, 6th Prime Meridian
T. 1 S., R. 98 W., Sec. 23, 6th Prime Meridian

PURPOSE & NEED FOR THE ACTION: The purpose of the action is to allow the development of Federal leases on BLM surface through the drilling of the proposed well and associated actions. The need for the action is established by the BLM's responsibility under the authority of the Mineral Leasing Act of 1920 as amended by the Federal Land Policy and Management Act of 1976 (FLPMA) to respond to the request to develop the Federal leases.

Decision to be Made: The BLM will decide whether or not to approve the installation of pipeline, placement of temporary surface line for central frac operations, the construction of the RGU 42-26-198 and RGU 43-23-198 well pads and access roads, and the drilling, operations and maintenance of the wells listed below for each well pad, and if so, under what conditions.

- RGU 42-26-198 well pad (21 wells): RGU's 542-26-198, 412-25-198, 512-25-198, 32-26-198, 432-26-198, 531-26-198, 33-26-198, 433-26-198, 343-26-198, 543-26-198, 431-26-198, 442-26-198, 443-26-198, 533-26-198, 43-26-198, 33-26-198, 532-26-198, 44-26-198, 332-26-198, 13-25-198, and 313-25-198
- RGU 43-23-198 well pad (nine wells): RGU's 33-23-198, 433-23-198, 34-23-198, 434-23-198, 542-23-198, 343-23-198, 543-23-198, 344-23-198, and 31-26-198.

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 WRFO interdisciplinary team on 4/30/2013. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 5/1/2013.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: Onsite inspections were conducted on 11/15/2012.

Proposed Action:

Construction of the RGU 42-26-198 well pad is proposed to begin in November 2013. Construction of the proposed 42-26-198 well pad and associated infrastructure would result in approximately 14 acres of surface disturbance (See Table 1). Twenty-one wells would be drilled from the 42-26-198 well pad.

Table 1. Total Surface Disturbance Required at Various Stages of Proposed Development for the RGU 42-26-198 well pad

	Disturbance in Acres during Construction Phase	Disturbance in Acres During Production Phase	Disturbance in Acres following Abandonment
140ft access road with a 30ft construction width and 25ft travel (during production) width.	0.96	0.8	0
3,630ft pipeline corridor with a 30ft temporary construction ROW and 40ft permanent ROW.	5.83	0	0
Well pad	6.78	1.35	0
Total	13.57	2.15	0

Construction of the proposed RGU 43-23-198 well pad and associated infrastructure is proposed to begin immediately upon approval of the Applications for Permits to Drill (APDs) and would result in approximately 10 acres of surface disturbance (See Table 2). Nine wells would be drilled from the 43-23-198 well pad.

Table 2. Total Surface Disturbance Required at Various Stages of Proposed Development for the RGU 43-23-198 well pad

	Disturbance in Acres during Construction Phase	Disturbance in Acres During Production Phase	Disturbance in Acres following Abandonment
3,700 ft access road with a 30 ft construction width and 25 ft travel (during production) width.	2.55	2.12	0
170ft pipeline corridor with 30ft temporary construction ROW and 40ft permanent ROW.	0.27	0	0
Well pad	6.78	1.77	0
Total	9.6	3.89	0

A temporary surface line for central fracking is proposed to be routed between the existing 11-25-198 well pad and the proposed 42-26-198 well pad. The geographic extent of the two well pad locations is depicted in Figure 1. Figure 2 depicts the Plan of Development for the proposed 42-26-198 location and Figure 3 depicts the Plan of Development for the 43-23-198 location.

A total of 24 acres of surface disturbance would result from implementing the Proposed Action. Total disturbance footprint would be reclaimed to from approximately 7 down to 2 acres during the production phase of the project for the 42-26-198 location and from approximately 7 acres down to 4 acres for the 43-23-198 location. The well pads and access roads would be completely reclaimed after the life of the project.

No Action Alternative: The well pad would not be constructed, the pipeline would not be installed, and the nineteen wells would not be drilled or produced from the two proposed well pads.

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 2-5

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

AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

Standards for Public Land Health: In January 1997, the Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis (EA). These findings are located in specific elements listed below.

Cumulative Effects Analysis Assumptions: Cumulative effects are defined in the Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7) as “...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” Table 3 lists the past, present, and reasonably foreseeable future actions within the area that might be affected by the Proposed Action; for this project the arconsidered 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 3. 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 : Water Developments Fences & Cattleguards	X	X	X
Wildfire and Emergency Stabilization and Rehabilitation	X	X	X
Wind Energy Met Towers			X
Oil and Gas Development, Well Pads, Access Roads	X	X	X
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 4 lists the resources considered and the determination as to whether they require additional analysis.

Table 4. Resources and Determination of Need for Further Analysis

Determination ¹	Resource	Rationale for Determination
Physical Resources		
PI	Air Quality	See discussion below.
PI	Geology and Minerals	See discussion below.
PI	Soil Resources*	See discussion below.
PI	Surface and Ground Water Quality*	See discussion below.
Biological Resources		
NP	Wetlands and Riparian Zones*	There are no systems supporting riparian vegetation within the project area. Yellow Creek, which is separated from the project area by nearly three miles of ephemeral channel, is the nearest system supporting riparian vegetation.
PI	Vegetation*	See discussion below.
PI	Invasive, Non-native Species	See discussion below.
PI	Special Status Animal Species*	See discussion below.
NI	Special Status Plant Species (SSPS)*	An unnamed tongue of the Uintah Formation intersects with the project area and has been identified as potential SSPS habitat. The area was surveyed for SSPS and it was determined that there is no suitable or occupied habitat within 600 meters of the Proposed Action (WWE 2012a, WWE 2012b, WWE 2012c). Therefore, there are no associated issues or concerns for SSPS within the project area.
PI	Migratory Birds	See discussion below.
NP	Aquatic Wildlife*	There are no systems supporting aquatic wildlife communities within the project area. The lower portion of Yellow Creek, which is located over 10 miles from the

Determination¹	Resource	Rationale for Determination
		project area, is the nearest system supporting higher order aquatic vertebrate populations (fisheries, amphibians).
PI	Terrestrial Wildlife*	See discussion below.
NI	Wild Horses	The proposed project is located outside of the Piceance-East Douglas Herd Management Area (PEDHMA), as well as, the North Piceance and West Douglas Herd Areas. However, wild horses are known to exist in this area with attempts to gather them unsuccessful. Therefore, it is reasonable to expect future gather operations may take place in or near this area in order to gather and remove those 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.
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.
NI	Fire Management	The Proposed Action is within the B6W polygon, where initial actions are to suppress fires quickly unless natural barriers or distance to improvements support the feasibility of managing for resource benefit.
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 within or near the Proposed Action.

Determination ¹	Resource	Rationale for Determination
Resource Uses		
PI	Forest Management	See discussion below.
PI	Rangeland Management	See discussion below.
NI	Floodplains, Hydrology, and Water Rights	The proposed surface disturbance would not be located in floodplains. Surface and Groundwater hydrology is unlikely to be impacted with Best Management Practices (BMPs) for stormwater. Water rights for freshwater use are described in the surface use plan and therefore no impacts are expected.
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		
NP	Areas of Critical Environmental Concern (ACEC)	The nearest designated ACEC to the Proposed Action is Duck Creek which lies over one aerial mile to the north. Due to the distance from the nearest ACEC, there are no issues or concerns associated with the Proposed Action.
NP	Wilderness	There are no Wilderness Study Areas or designated Wilderness areas within 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. * Public Land Health Standard

AIR QUALITY

Affected Environment: The Proposed Action is an attainment area for national and state air quality standards, based on 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 airsheds. Non-attainment areas are designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the national ambient air quality (NAAQ) standards. The closest non-attainment areas are along the Front Range corridor in Colorado which are in non-attainment for ozone. 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). Projects that could impact special designation areas and/or non-attainment areas may require special consideration from the Colorado Department of Public Health and Environment (CDPHE) and the EPA. 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 and ozone are measured at monitoring sites located at Meeker, Rangely, Dinosaur, and near the Flat Tops Wilderness Area. Ozone data have been collected at Federal reference air quality sites in Meeker and Rangely supported by the BLM since 2010. 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 air borne 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, drilling, completion and, to a lesser extent, from vehicles and gas processing and compression facilities during the production phase. 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 volatile organic compounds (VOCs) and nitrogen oxides (NOx)), nitrogen dioxide, and sulfur dioxide. Ozone advisories and alerts were issued in the winters 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.

Additional low, short-term impacts to air quality may occur due to venting or flaring of gas from wells and VOCs from pits, storage and treatment of cuttings, and from tanks during drilling and completion activities. Venting and/or flaring of natural gas is typically done for short periods of time in order to determine potential production amounts and characterize the quality of the gas. During production, VOCs including hazardous air pollutants (HAPs) commonly associated with oil and gas production (benzene, toluene, ethylbenzene, xylene, and n-hexane) will be released from tanks, separation equipment and due to transportation of natural gas, produced water and condensate by pipeline or trucks. The amount of these releases are difficult to estimate, but would 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, heavy equipment, and drill rigs is expected to cause increases in fugitive dust and inhalable particulate matter, specifically particulate matter (PM) 10

microns (μm) or less (PM_{10}) and particles 2.5 μm or less ($\text{PM}_{2.5}$). Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), salts, 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 to occur during the construction and drilling phases, especially when conditions are dry and/or windy. Particulate matter is the major contributor to reductions in visibility, due to particulates 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. Once the wells go into interim reclamation, topsoil removed during road and pad construction would be redistributed and stabilized and seeded for reclamation. As vegetation establishes in the reclaimed areas, dust production will occur only when vehicles travel on the access roads to service the wells. 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.

It is unlikely that the headwaters of Piceance and Yellow Creek where the Proposed Action is located would be in a future non-attainment area for ozone. This is due to the distance from Rangely; that Piceance and Yellow Creek are not likely to be impacted by emissions from the Uinta and Yampa River Basins; and local climate conditions favor dispersion of pollutants that might form ozone.

In summary, soil disturbance resulting from construction of pads and roads and drilling is expected to cause increases in fugitive dust and inhalable particulate matter in the project area and immediate vicinity 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 due to combustion of fossil fuels during exploration and production activities. 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. Even with these increased pollutants the Proposed Action is unlikely to result in an exceedance of NAAQ and Colorado ambient air quality (CAAQ) standards, is not likely to be located in future non-attainment area, and is it likely to comply with applicable PSD increments and other significant impact thresholds.

Cumulative Effects: The air quality 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, oil and gas development near Rangely and from power plants in Utah.

Since 2010, ozone data have been collected at the Rangely air quality monitoring site and this site has measured values of 8-hour values for ozone above the NAAQ ozone standard of 75 ppb. These values have not been high enough to lead to an exceedance of NAAQ standards until this year. 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.

The Proposed Action will not contribute to the exceedance of NAAQ standards for ozone in the Rangely and Dinosaur areas since the predominant wind patterns in the Piceance and Yellow Creek basins 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 NAAQ standards.

It is likely that additional regulation of emissions will be applied to BLM permitted oil and gas development within any designated non-attainment area, but the Proposed Action is unlikely to be in any future non-attainment area for ozone. As described above EPA and CDPHE are responsible for designating non-attainment areas and may require performance standards and practices in this area to ensure future compliance with NAAQ standards.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Impacts to air quality would not occur from the No 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 drilling 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 the BLM.

GEOLOGY AND MINERALS

Affected Environment: The surficial geologic formation of the proposed well locations is the Uinta (Duncan) and WPX's targeted zone is located in the Mesaverde Formation. During drilling, potential water, oil shale, sodium, and gas zones will be encountered from surface to the targeted zone. Fresh water aquifer zones encountered during drilling are in the upper portion (2,000 feet) of the wells. These are located in the Green River Formation and are commonly known as: the Perched in the A-groove, B-groove, and the Dissolution Surface. These aquifer zones and portions of the Wasatch Formation can be areas of difficulty during drilling and cementing operations.

Both pads are located in the area identified as being available for multi mineral leasing in the White River ROD/RMP on Natural Soda Inc.'s (NSI) Federal Sodium Lease COC-0118327. The lease became effective July 6, 1971 and solution mining of the nahcolite (sodium bicarbonate) resource on the lease commenced in 1991. NSI mines a bedded nahcolite horizon named the Boies Bed in the Green River Formation located at a depth of approximately 1,950 feet below the surface. WPX's targeted natural gas resources are more than 6,000 feet deeper than the Boies Bed and in the Mesaverde Formation. According to the approved NSI mine plan, NSI is required by the EPA, BLM, and Colorado Department of Reclamation Mining and Safety to monitor the water quality and hydrostatic head of the fresh aquifer zones in and around the mining operations. The aquifer zones are monitored to determine the effects of solution mining activities on these aquifer zones. Continuous monitoring of the hydrostatic head in dedicated dissolution surface monitoring wells is recorded during daily operations to balance the injection and recovery rates of the mining solutions.

Well pad 43-23-198 has the nearest proximity to NSI's down gradient suite of monitoring wells (four monitored wells on a single pad) with a surface location of approximately 500 feet from proposed well RGU-31-26-198 to the nearest monitoring well IRI6. The projected well bores of RGU-31-26-198 and RGU-434-23-198 are down gradient from IRI6 and would intersect the IRI 6 monitoring horizon approximately 400 ft from IRI6 well bore.

Well Pad 42-26-198 is the nearest of the two pads to current solution minin. It is located approximately 1,900 feet north of NSI's 13H production wells and 1,000 feet east of NSI's water supply well (WSW-2).

Both well pads are located on Federal Oil and Gas Lease COC-60732 which was effective October 1, 1997. The lease is included in the Ryan Gulch Exploratory Oil and Gas Unit COC 68239X and is held by production from a producing well. The Colorado Oil and Gas Commission (COGCC) database identifies 30 wells that are either drilling, producing, or waiting on completion and 44 proposed oil and gas wells within a one mile radius of the proposed well pads (approximately 3,140 acres).

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Drilling and completion of the proposed wells could affect the aquifers in the Green River Formation if there is loss of circulation or difficulties encountered cementing the surface casing. Proper implementation of the proposed cementing and

completion procedures would isolate the formations and prevent the migration of gas, water, and oil between formations along the annulus of the well bore and casing. WPX actively coordinates with NSI during the proposed drilling activities to help reduce potential conflicts between the recovery of the sodium and natural gas resources . Development of these wells will deplete the hydrocarbon resources in the targeted formation.

Cumulative Effects: As mentioned above, 74 wells are currently drilled or planned which would require an additional 83 wells for full development, on bottom hole spacing of 20 acres, for the natural gas resource within this one mile radius. Continued coordination between WPX and NSI is expected to prevent future conflicts between the development of sodium and natural gas resources.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: The natural gas resources in the targeted zone would not be recovered at this time.

Cumulative Effects: There would be no contribution to conflicts between recovery of sodium, and natural gas resources.

Mitigation:

1. WPX shall notify NSI of their plans to drill wells on both well pads prior to the commencement of surface disturbing activities to coordinate the mobilization of equipment to the drill site and drilling operations to minimize interference with NSI operations.
2. To indicate ownership of aquifer zone impacts that could occur during drilling and completion operations a fluorescent dye other than Rhodamin WT should be added to all drilling fluids used during the surface casing drilling operations.
3. WPX shall inform NSI during drilling and cementing of the surface casing and during fracing operations.

SOIL RESOURCES

Affected Environment: The classifications of soils within 30 meters of the proposed pads and centerlines of the access roads and pipelines that could be impacted by the Proposed Action are shown in Table 5. There are no fragile soils, soils with landslide potential, or saline soils on Federal lands within 30m of the proposed disturbance.

Table 5. Soil Classifications within 30 Meters of the Pad and the Centerline of Roads and Pipelines (NRCS, 2008).

Soil Classification	Ecological Site	Erosion Hazard	Rutting Hazard	Potentially Impacted (Acres)
Rentsac channery loam, 5 to 50 percent slopes	None	Severe	Slight	36
Yamac loam, 2 to 15 percent slopes	Rolling Loam	Severe	Severe	25
Piceance fine sandy loam, 5 to 15 percent slopes	Rolling Loam	Severe	Severe	9

Of the 70 acres analyzed, all of the soils have a severe erosion hazard and almost half of the soils (34 acres) have a severe rutting hazard. It is likely that roads built in this area with only native materials will not function as all-weather surfaces. Each of the pads has multi-wells and drilling is expected to take most of the year, which includes time periods with saturated soils such as early in the spring and late summer.

The Surface Use Plan (SUP) for the 43-23-198 pad does not include a plan to keep BLM road 1148 open during drilling and construction and would block the route with fill according to diagrams. The Access and Transportation section describes the use of this road and the need to keep it in existing or better condition during construction, drilling, and production. The Water Quality Section also describes the importance of this access route for groundwater monitoring.

When vegetation and brush removed from the site is not adequate, the SUP plan calls for trenches surrounding the cut and fill slopes. The SUP for the 42-26-198 is somewhat unclear about what BMPs would be employed on the roads and around pads for stormwater and sediment containment. Due to the poor soils in this area more detailed planning is needed for describing direct and indirect effects, COAs have been added to clarify these details.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: With proper BMPs for stormwater, construction, reclamation and mitigation, impacts to soils outside the 30 meter buffer around surface disturbance are not expected. However, due to the lack of detail in the SUP for both well pads it is unclear if the BMPs proposed will be adequate. Final reclamation on the pipelines would likely be achieved within 3 to 5 years after installation about the same time as interim reclamation around pads and alongside roads.

Since the soil erosion hazard is severe for all the soils, and since these sites will be occupied over the winter and experience high use, surfacing access roads would improve the wear of the road surfaces and reduce the risk of increased erosion adjacent to roads and therefore reduce impacts to soils and steep slopes adjacent to the access roads. Drainage features on un-surfaced roads built with native materials are likely to fail in these areas and would cause erosion in localized areas, and due to the need for more maintenance decrease the success of interim reclamation in the borrow ditches, thereby reducing soil productivity from what it could be with better practices.

Direct impacts from the construction of the well pads, access roads and pipeline installation 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 before reclamation is complete. Loss of topsoil productivity can occur during storage due to 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 from the Proposed Action could result in increased indirect impacts to soils off the construction sites such as increased runoff and erosion. Implementation of BMPs for stormwater and reclamation will reduce impacts from this project and should limit impacts to construction sites. Mitigation provided below should achieve proper BMPs for the project. However, there is the potential for intense storm events or BMP failures resulting in erosion off the site even with good BMPs being in place.

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

Cumulative Effects: Well pads in the Yellow Creek watershed are within the Mesaverde Play oil and gas development area and are likely to have 2-3 multiple well pads per section. Other wells in the general area would also include surface disturbance for well pads, pipelines, roads and support facilities. Extensive development of oil and gas is foreseeable in this watershed. There are also oil shale research and development leases, in-situ Naphthalene mining, a major electrical sub-station and a large natural gas-processing facility in the same general area as the wells. Mining and industrial activities will also disturb soils in the Yellow Creek watershed. Livestock grazing and dispersed recreation also occur on public lands in the area and these activities may reduce canopy cover and lead to localized erosion in some reclamation areas. No other impacts other than oil and gas development, the industrial development described, livestock and reclamation are expected in the Yellow Creek watershed. In general, soil disturbance in the Proposed Action and other activities are likely to reduce soil productivity in the localized areas of disturbance in this case the Yellow Creek watershed.

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 avoid erosion and rutting of access roads, the access road from the Natural Soda Plant to pad 43-23-198 and the short access road to pad 42-26-198 from the County road will be surfaced with a minimum of six inches of road base, gravel and/or aggregate and maintained during construction, drilling and production phases of the project to form an all-weather travel surface.
2. To avoid additional disturbance that may result in erosion of soils around pads, when brush is not sufficient to maintain perimeter brush barrier as shown on Plat 5 E for well pads, waddles or fiber rolls will be used instead of toe trenches for perimeter control. Alternatively a suitable BMP plan may be developed to be approved by BLM that does not require trenches for perimeter control.
3. To assure that the road plans will be protective of soil resources, a road plan will be submitted via Sundry Notice for BLM approval for well pad 43-23-198 that describes and includes the following:
 - a) An updated plan diagram that shows proposed BMPs for culvert outlets and more specific design standards of the planned access roads planned.
 - b) Some documentation of coordination of the access road design with Natural Soda from the plant to the beginning of BLM Road 1148.
 - c) How public access will be maintained on BLM Road 1148 during construction, drilling and production.

Finding on the Public Land Health Standard #1 for Upland Soils: With mitigation, 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 Stake Springs Draw, a tributary to Yellow Creek and the White River. Table 6 describes water segments that may be impacted by this project.

Both Segment 13b which includes Yellow Creek and its tributaries and Segment 13c that describes Yellow Creek from Barcus Creek to the White River are protected for warm water aquatic life (Warm 2). The warm designation means the classification standards would be protective of aquatic life normally found in waters where the summer weekly average temperatures frequently exceed 20 °C. The Warm 2 designation means that it has been determined that these waters are not capable of sustaining a wide variety of warm water biota.

Table 6. Water Quality Classification Table (WQCC 2013)

Segment	Segment Name	Use Protected	Protected Beneficial Uses			
			Aquatic Life	Recreation	Agriculture	Water Supply
13b	Mainstem and tributaries to Yellow Creek above Barcus Creek	No	Warm 2	Not Primary Contact Recreation	Yes	No
13c	The mainstem of Yellow Creek from Barcus Creek to the White River.	No	Warm 2	Not Primary Contact Recreation	Yes	No

Groundwater: Precipitation in this area generally moves from areas of recharge to surface waters via alluvial aquifers, bedrock 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 and the baseflow of Yellow Creek. Springs and ground water inputs generally occur in both bedrock and alluvial aquifers along valley bottoms in Yellow Creek from Barcus Creek down.

Contact springs are common in the area and are often the result of upper bedrock aquifers consisting of fractured, lean oil shale zones and siltstones of the Green River Formation above and below the Mahogany Zone. 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. The gulleys on the southeastern edge of the pad and along the access roads are the most likely areas for this surface erosion to occur. Stormwater measures and BMPs that include periodic monitoring of any erosion problems would be essential to avoid erosion and increased sedimentation to surface waters.

The soil analysis indicated the potential for severe rutting on roads and that due to the length of occupation of this site during drilling, the site would need to be accessed in the winter and other

times with high soil moisture, therefore without road surfacing impacts to the drainage features are likely. To reduce erosion adjacent to roads and potential impacts to the water quality of downstream public lands, access roads would be surfaced with six inches of road base and/or gravel based on soils mitigation. Maintenance would include restoring the travel surface shape, road surfacing to maintaining an effective all-weather surface during drilling and production of the wells. This should reduce the risk of increased sedimentation to surface waters.

WPX estimates that 11,000 bbls of the fresh water (1.42 acre-feet) would be used per well during construction and drilling activities. White River Field office uses 2.62 acre-feet of freshwater use per well per well, and a programmatic agreement was established with the US Fish and Wildlife for depletions based on this amount (See the Special Status Animal Species Section), therefore water use is expected to be below what was estimated in the programmatic agreement.

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. Surface erosion for this project is most likely during the construction and early production phases of the project and would be mitigated using BMPs for stormwater.

Groundwaters: Aquifers in the project area include the Tertiary Uinta-Animas aquifer, and the Cretaceous Mesaverde aquifer. The latter aquifer represents the principal target of the Proposed Action. The Uinta-Animas aquifer consists of portions of the Green River and Uinta formations and is generally divided into upper and lower units by the Mahogany zone of the Parachute Creek Member of the Green River Formation, which retards water movement vertically.

The proposed casing and cementing program for each of the wells has been designed to protect and/or isolate all usable water zones. There are two zones of potential water (A-groove and the B-groove) in the Parachute Member of the Green River formation that are anticipated to be drilled through. These potential freshwater zones will be protected by surface casing, cementing behind the casing will be carried to the surface. The grade of cement used will vary but drilling practices will be employed and checked by the BLM to eliminate gaps between cement. Cement protects the well casings from leaking due to deterioration over the life of the well and allows casings to withstand pressure increases during completion and hydrologic fracturing activities without bursting.

Loss of drilling fluids may occur at any time in the drilling process due to changes in porosity or other properties of the rock being drilled. When this occurs, drilling fluids may be introduced into the surrounding formations which could include freshwater aquifers. If drilling fluids are lost into groundwater aquifers, aquifers may be contaminated by drilling additives. Using bentonite, freshwater and other additives that cannot contaminate groundwater mitigates the loss of drilling fluids that can be common during drilling since the introduction of these substances would not impact the quality of these groundwater features.

Impacts to groundwater resources could occur due to failure of well integrity, failed cement, surface spills, and/or the loss of drilling, completion and hydraulic fracturing fluids into groundwater. 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.

According to COGCC requirements, all chemicals (greater than 500 pounds) used during drilling, completion, and work-over operations, including hydraulic fracturing treatments will be disclosed in a chemical disclosure form by well site. Also, chemicals and additives used for hydraulic fracturing will be disclosed on the public web site set up for this purpose.

Hydraulic fracturing is designed to change the producing formations' physical properties by increasing the flow of water and gas around the well bore. Hydraulic fracturing may also introduce chemical additives into the producing formations. Chemical additives used in completion activities will mostly be pumped back to surface tanks before production. Left over fluids will be injected in a Class II injection.

Known groundwater bearing zones in the project area would be protected by drilling plan as described. Groundwater resources (including the contact springs, perched aquifers, and groundwater zones described in the Affected Environment) are all in elevations above the surface casing. With proper drilling and completion practices contamination of groundwater resources is unlikely.

Current plans would close a public access road (BLM Road 1148) that is used to access a groundwater monitoring well located to the north of the Proposed Action. It is important that this well is accessible for sampling during all phases of the project since this is one of five core wells for the BLM groundwater monitoring program. The mitigation in the Soils Section would require a plan that defines how this road will be kept open and mitigation in the Access and Transportation section recognizes the importance of keeping this route open for other uses. With this mitigation no impacts are expected.

Cumulative Effects: Well pads in the Yellow Creek watershed are within the Mesaverde Play Area and are likely to have 2-3 multiple well pads per section during full development. Exploratory wells would include surface disturbance for well pads, pipelines, roads and support facilities. Extensive development of oil and gas is foreseeable. Livestock grazing and dispersed recreation occurs on public and private lands in the area and these activities may reduce canopy cover and lead to localized erosion in some reclamation areas. No other impacts other than oil and gas development, livestock and reclamation 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 increased salt or sedimentation loading in Yellow Creek.

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 runoff 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.
4. To reduce erosion adjacent to roads and protect water quality in downstream public lands by maintaining the drainage features of the access roads, access roads will be surfaced with six inches of road base and/or gravel. Maintenance will include restoring the travel surface shape, road surfacing to maintaining an effective all-weather surface during drilling and production of the wells.
5. When drilling to set the conductor and surface casing, drilling fluid will be composed only of fresh water, bentonite, and/or a benign lost circulation material that does not pose a risk of harm to human health or the environment (e.g., cedar bark, shredded cane stalks, mineral fiber and hair, mica flakes, ground and sized limestone or marble, wood, nut hulls, corncobs, or cotton hulls).

Finding on the Public Land Health Standard #5 for Water Quality: It is unlikely that construction of these well pads, access roads, installation of pipelines or drilling would result in an exceedence of state water quality standards.

VEGETATION

Affected Environment: The Proposed Action 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 well pads and associated infrastructure would remove all vegetation from approximately 24 acres. Direct impacts of vegetation removal include short-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 majority of these disturbances would reduce the overall vegetation loss during the life of the two pads (RGU 42-26-198 to 2.1 acres and the RGU 43-23-198 pad to 3.9 acres). 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 interim reclamation. Incorrect placement of stored soil during final recontouring 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 Action, 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 additional impacts to vegetation at the proposed pad sites 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 NRS 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 7) 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 Natural Resource Specialist (NRS) 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 7. Native Seed Mix 2

Variety	Common Name	Scientific Name	Rate (Lbs. PLS/acre)
Arriba	Western wheatgrass	<i>Pascopyrum smithii</i>	4
Whitmar	Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	4
Rimrock	Indian ricegrass	<i>Achnatherum hymenoides</i>	3.5
Lodorn	Green Needlegrass	<i>Nassella viridula</i>	2.5
Timp	Northern Sweetvetch	<i>Hedysarum boreale</i>	3
	Scarlet Globemallow	<i>Sphaeralcea coccinea</i>	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:
 - a) 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.
 - b) 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.
 - a) The Reclamation Status Report will include the COC 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 though Colorado State Listed weeds known to occur in the general area include: cheatgrass (*Bromus tectorum*), common mullein (*Verbascum thapsus*), houndstongue (*Cynoglossum officinale*), 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 unvegetated 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:

Direct and Indirect Effects :The 24 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:

Direct and Indirect Effects: 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 operator 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 operators must 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: There are no federally listed or candidate species that are known to inhabit or derive important use from the project area.

The endangered Colorado pikeminnow occupies the lower White River below Taylor Draw Dam and Kenney Reservoir, over 30 river miles downstream from the project area. The White River and its 100-year floodplain from Rio Blanco Lake to the Utah state line are designated critical habitat for the pikeminnow. The White River in Colorado does not appear to support spawning activity, young-of-year nurseries, or juvenile concentrations areas for the Colorado pikeminnow. The White River and its flow contributions to the lower White (Utah), Green, and Colorado Rivers remain important in the support of downstream habitat for the pikeminnow, as well as other endangered fish of the Upper Colorado River system, including humpback chub, bonytail, and razorback sucker and although these three species do not occur in the White River, water depletions in the White River adversely affect these species' downstream habitats in the Green River.

Brewer's sparrow, a BLM sensitive species, is a sagebrush-obligate that is widely distributed and one of the most common migratory birds in northwest Colorado. These birds nest in virtually all sagebrush and mixed shrub habitats from late May through mid-July. Although not particularly sensitive to understory conditions in shrubland stands, the nestlings are reliant on abundant and diverse sources of insect prey through fledging and brood-rearing. Brewer's sparrows would be expected in nearly all sagebrush communities surrounding the project area. Discussion and analysis in the Migratory Bird Section would be directly applicable to Brewer's sparrow.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Given that the Proposed Action would result in the depletion of approximately 49 acre-feet of water from within the Colorado River basin, this project falls under BLM Colorado's Programmatic Biological Assessment (PBA) for water depleting activities associated with BLM's fluid minerals program in the Colorado River basin in Colorado (BLM 2008).

In response to BLM's PBA, the U. S. Fish and Wildlife Service (FWS) issued a Programmatic Biological Opinion (PBO)(ES/GJ-6-CO-08-F-0006) on December 19, 2008, which concurred with BLM's determination that water depletions are "Likely to Adversely Affect" the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. Likewise, the project is also likely to adversely affect designated critical habitats for these endangered fish along the Green, Yampa, White, Colorado, and Gunnison rivers. However, the FWS also determined that BLM water depletions from the Colorado River Basin are not likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, or razorback sucker, and that BLM water depletions are not likely to destroy or adversely modify designated critical habitat.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated in January 1988. The Recovery Program serves as the reasonable and prudent alternative to avoid jeopardy and aid in recovery efforts for these endangered fishes resulting from water depletions from the Colorado River Basin. The PBO addresses water depletions associated with fluid minerals development on BLM lands, including water used for well drilling, hydrostatic testing of pipelines, and dust abatement on roads. The PBO includes reasonable and prudent alternatives developed by the FWS which allow BLM to authorize oil and gas wells that result in water depletion while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. As a reasonable and prudent alternative in the PBO, FWS authorized BLM to solicit a one-time monetary contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in the amount equal to the average annual acre-feet depleted by fluid minerals activities on BLM lands. This project has been entered into the WRFO fluid minerals water depletion log which will be submitted to the Colorado State Office at the end of the Fiscal Year.

Cumulative Effects: Impacts to Brewer's sparrow would be identical to those discussed in the Migratory Birds Section. Prompt and effective interim reclamation would promote a healthier, diverse plant community which may potentially benefit local wildlife populations in the short-term.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no direct or indirect influence on special status species or associated habitats under the No Action Alternative.

Cumulative Effects: There would be no contribution to previous or existing disturbances that would potentially impact special status species or habitats under the No Action Alternative.

Mitigation: None.

Finding on the Public Land Health Standard #4 for Special Status Species: The Land Health Standards for special status animal communities are currently being met in the project area. Neither the Proposed nor No Action Alternatives are expected to detract from continued meeting of these standards.

MIGRATORY BIRDS

Affected Environment: Pad 43-23-198 is located in open canopied, mature pinyon-juniper stand interspersed with Wyoming big sagebrush. Although minimal, ground cover is well intact, with little to no annual, invasive species. Site access, which traverses a large sagebrush park, will be along an established dirt road, but will involve some upgrading. Pad 42-26-198 is situated in a sagebrush park with encroaching and younger aged pinyon-juniper scattered throughout. Herbaceous ground cover is well developed, with little to no invasive species. This site is located immediately adjacent to well-traveled, paved road.

The pinyon-juniper and sagebrush communities which encompass the project area provide nesting habitat for a variety of migratory birds during the breeding season (typically mid-May through mid-July) including, but not limited to vesper's sparrow, green-tailed towhee, black-throated gray warbler and Bewick's wren. The only Birds of Conservation Concern (BOCC; designated regionally by the FWS for long-term declining population trends) within the project area are Brewer's sparrow (sagebrush communities) and juniper titmouse (pinyon-juniper woodlands).

Although these locations have no open water or wetland areas that support or attract waterfowl use, the development of reserve pits that contain drilling fluids have attracted waterfowl use, at least during the migratory period (i.e., local records: mid-March through late May; mid-October through late November).

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action would initially result in the direct loss of approximately 24 acres (pad, pipeline, access roads) of woodland (~10 acres) and shrubland (~14 acres) habitat. Under natural succession regimes these communities would take anywhere from 20 years (shrubland) to several hundred years (mature pinyon-juniper) to return to preconstruction conditions. As proposed, construction activities are scheduled to begin in November, effectively avoiding the migratory bird nesting period and eliminating any potential to directly influence nesting outcomes. Should project initiation (vegetation removal associated with pad construction) be postponed until next spring, there would be greater potential of displacement of birds, nest abandonment and potential mortality of nestlings.

Vegetation loss associated with pipeline installation would be relatively short-term (one to three years). Prompt and effective reclamation would result in the reestablishment of perennial forbs and grasses which would provide a forage and cover resource, particularly to ground nesting bird species in the area.

Activities associated with drilling of these wells (vehicle traffic and human activity) will likely extend into the following breeding season and would be expected to indirectly influence migratory birds. Ingelfinger and Anderson (2004) showed a 39 percent – 60 percent reduction in the density of sagebrush obligates within 100 m of roads. Based on these calculations, the Proposed Action could indirectly influence an additional 70 acres of functional forage and nesting resources due to reductions in nest densities and avoidance of habitats associated with increased human activity. Because the Proposed Action is located in an area of moderate to high development, it is suspected that nest densities are currently reduced to a certain degree.

It has been brought to BLM's attention that in certain situations migratory waterfowl have contacted drilling or frac fluids (i.e., stored in reserve pits) during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with frac and drilling fluids that may pose a problem.

Cumulative Effects: The Proposed Action would result in an incremental reduction in sagebrush and pinyon-juniper habitats available for cover, nesting and forage resources for migratory birds in the immediate vicinity. With effective reclamation, it is unlikely that the Proposed Action would result in a measurable change to local migratory bird populations or habitats supporting these species.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no direct or indirect influence on migratory birds or associated habitats under the No Action Alternative.

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

Mitigation: The operator shall prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to migratory waterfowl, shorebirds, wading birds and raptors during completion and after completion activities have ceased. Methods may include netting or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion.

TERRESTRIAL WILDLIFE

Affected Environment: The lower elevation Wyoming sagebrush and pinyon-juniper communities that encompass the project area are classified by Colorado Parks and Wildlife (CPW) as mule deer severe winter range - a specialized component of winter range that supports virtually an entire herd during the most extreme winters (snow depth, temperature). These ranges typically receive the heaviest use from January through April.

Mature components of pinyon-juniper woodlands located mainly in and around the RGU 43-23-198 location may provide suitable nesting substrate for woodland raptors (accipiters, hawks, and several owl species). Small mammal species that are likely to occur in the project area are widely distributed throughout the region. No narrowly distributed or highly specialized species or sub-specific populations are known to inhabit this area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action would directly remove roughly 24 acres of woodland (~10 acres) and shrubland (~14 acres) habitat. These communities, which provide forage and cover resources for big game and nongame species generally take anywhere from 20 years (sagebrush) to over several hundred years (pinyon-juniper) to return to preconstruction conditions. The long-term occupation on approximately 14 acres (associated with the 42-26-198 and 43-23-198 locations) of mule deer severe winter range is fairly minor in the context of like habitats available throughout the Piceance Basin; however, the localized influence may have a more pronounced effect on forage availability and local big game distribution.

In November 2009 an agreement was reached by CPW, WPX, and BLM through a COGCC Wildlife Mitigation Plan (WMP) which supports CPW's research that is designed to better define deer response to applied Best Management Practices (BMPs) and intense, but spatially confined natural gas development. To provide the necessary contrast in experimental design, gas development projects within a pre-defined area of WPX's Ryan Gulch Unit have been excepted from big game winter timing limitations through year 2014. The exception area encompasses about 11 percent of the deer severe winter range encompassed by WPX's leaseholdings in Piceance Basin or about 1 percent of the total severe winter range available within Game Management Unit (GMU) 22. The Proposed Action is located within that 7,680 acre exception area.

Final pipeline reclamation and interim reclamation on both well pads in the Proposed Action would help offset herbaceous forage losses and accelerate the reestablishment of woody forage and cover components for all resident wildlife.

The long term removal of approximately ten acres of woodland habitat is not expected to have any measurable influence on local raptor populations, as the stands involved are generally immature or too open to support nesting birds. As proposed, construction activities are scheduled to take place in November, effectively avoiding the raptor nesting period and eliminating any potential to directly influence nesting outcomes. Raptor surveys were conducted within the project area in May 2012 (RGU 43-23-198) and May 2013 (RGU 42-26-198). One unoccupied nest was located in the woodlands north of RGU 43-23-198. Activities extending into the following breeding season (spring/summer 2014) may indirectly influence birds, causing avoidance of otherwise functional habitats.

Cumulative Effects: Activities associated with the Proposed Action would contribute to a reduction in availability of forage and cover resources available for local wildlife. In the long term, especially with effective reclamation, it is unlikely that the Proposed Action would result in a detectable change to terrestrial wildlife and/or their habitats.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no direct or indirect influence on terrestrial wildlife or associated habitats under the No Action Alternative.

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

Mitigation: Activities (including construction, drilling etc.) associated with the Proposed Action will not be permitted to take place from January 1 through April 30 to avoid disruption of big game during the critical winter period. The WRFO will except/modify RMP-prescribed timing limitations for those projects (via Sundry Notice) where there is written documentation affirming consistency with the WMP.

Finding on the Public Land Health Standard #3 for Plant and Animal Communities: The project area generally meets Land Health Standard #3 on a landscape scale. The Proposed Action is expected to incrementally reduce local habitat capacity over the life of the project. As

conditioned by reclamation-related provisions (reduction in disturbance footprint from 24 to 6 acres), implementation of the Proposed Action would not interfere with continued landscape level maintenance of the land health standards.

CULTURAL RESOURCES

Affected Environment: The proposed well pad locations, access roads and well tie pipelines have been inventoried at the Class III (100 percent pedestrian) level by at least four inventories (Conner 1999 compliance dated 4/29/1999, 2013 compliance dated 6/14/2013, Conner and Davenport 2006 compliance dated 10/26/2006, Schwendler et al 2008 compliance dated 2/11/2009). These inventories have failed to observe any surface manifestations of cultural resources though there is a potential for subsurface remains in the area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The proposed project will not impact any currently identified and recorded cultural resources. However, if subsurface remains are present they could be adversely and potentially severely impacted during well pad and access route construction.

Cumulative Effects: Should any subsurface remains be impacted or destroyed by well pad and access road construction it would represent an irreversible, irretrievable, permanent loss to the regional archaeological database.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no known direct or indirect impacts to cultural resources, known or unknown, under the No Action Alternative.

Cumulative Effects: There would be no cumulative loss of data from the regional archaeological database unless future erosion exposes previously unknown cultural resources.

Mitigation:

1. WPX 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 Authorized Officer (AO). WPX 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. WPX, 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), WPX 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), WPX 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 well pad locations, access routes and well tie pipelines are located in an area generally mapped as the Uinta Formation (Tweto 1979) which the BLM, WRFO has classified as a Potential Fossil Yield Classification (PFYC) 5. Formations that are classified as PFYC 5 are known to produce scientifically noteworthy fossil resources (c. f. Armstrong and Wolny 1989). In 1980, during inventory for a proposed Nahcolite mine, pieces of what are believed to be a *Titanotheres* skull were located (Conner and Langdon 1980 compliance dated 1/2/1981) approximately 570 feet (173.8 meters) or less from the proposed well pad center stake, suggesting fossils may be exposed at the surface in this area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: If it becomes necessary to excavate into the underlying sedimentary rock formations to level the well pad, excavate the reserve/blooi/cuttings pit(s), prepare an access road or bury any of the well tie pipelines for produced water, frac water or produced gas there is a high potential to adversely impact scientifically noteworthy fossil resources. Increased activity in the area during all construction and development related activity increases the potential for unlawful collection of fossil resources. Until such time as reclamation is fully successful there is a potential for increased erosion in the construction area to adversely impact fossil resources, especially the smaller more fragile resources that can be found in the Uinta Formation.

Cumulative Effects: Any adverse impacts to fossil resources that occur as a result of development activities related to construction of the well pad and its supporting infrastructure would likely constitute an irreversible, irretrievable, permanent loss to significant (WO-IM-2009-011 Attachment 2) fossil resources.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no new construction related impacts to paleontological resources under the No Action Alternative. Further, there would likely be less human activity in the area as a result of the lack of construction and development activity that would likely reduce the incidence of unlawful collection of fossil resources.

The natural weathering process that has been occurring for many centuries would likely continue resulting in a very slow erosion of exposed surfaces which could expose any fossil contained in the formation. The loss to erosion would likely be greatest to the smaller more fragile fossils in the formation as they are washed out of context in the formation and either washed away or destroyed by tumbling during the erosion process. Larger fossils would be exposed and slowly weathered causing fragmentation of the exposed portions of the fossils as the weathering process proceeds.

Cumulative Effects: Under the No Action Alternative there would continue to be a very slow loss of scientifically noteworthy fossil resources as a result of the natural weathering process. The loss is irreversible, irretrievable and permanent but is at such a slow rate that it is not generally considered unacceptable.

Mitigation:

1. WPX is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
2. If any paleontological resources are discovered as a result of operations under this authorization, WPX or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.
3. Any excavations into the underlying native sedimentary stone must be monitored by a permitted paleontologist. The monitoring paleontologist must be present before the start of excavations that may impact bedrock.
4. The forty acre area around the proposed well pad 42-26 198 center stake must be inventoried before construction to determine if any more fossil bones have been exposed in the area where a Titanotheres skull was recorded during earlier inventory efforts.

VISUAL RESOURCES

Affected Environment: FLPMA directs that "the public lands be managed in a manner that will protect the quality of ...scenic...values." The BLM developed the Visual Resource Management system to identify and evaluate scenic values. The visual resource inventory (VRI) process described in BLM Manual H-8410-1 establishes VRI Classes (October 2011), which are used to assess visual values. VRI Classes II, III, and IV are determined by the results of three inventoried components: scenic quality, sensitivity level, and distance zone. VRI Class I areas are assigned to special management areas, which are the most valued landscapes. The VRI classes are the initial, existing conditions baseline from which environmental effects are assessed. The Proposed Action is located VRI Class IV which means this area is a lesser valued landscape. This area of the landscape was placed into the VRI Class IV as a result of the scenic quality scoring a C, which is the lowest rating (A,B, and C type rating), because of the amount of oil and gas development and that the scenic quality key factors of the landscape (landform, vegetation, water, color, scenery, scarcity, and cultural modification) were not particularly interesting nor distinctive. Other determining factors for the VRI Class IV rating for this area

were a result of the sensitivity level rating as moderate value to the public, and a distance zone of background zone that is less visible and about 15 miles away from main travel routes. Based on the sensitivity level rating unit (SLRU) 12 in the October 2011 WRFO Visual Resource Inventory, this area of the landscape receives heavy use from oil and gas traffic, hunters, and local ranchers, but is highly modified by oil, gas, and mineral developments.

The BLM also maintains four Visual Resource Management (VRM) classes to describe the level of acceptable change allowable at a given location. Scenic values in the BLM WRFO have been classified according to the VRM system into four VRM 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 for the amount of allowable change to occur on the landscape. The VRM objectives provide the amount of allowable change and are a resource-allocation. 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 should be moderate. Management activities may attract attention but could 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 in the Piceance Basin in an area of dense oil and gas and mineral development near Rio Blanco County (RBC) Road 83 (Bar D Mesa). RBC Road 31 runs along the west side of well pad RGU 43-26-198 approximately 100 feet away from the pad and serves as the key observation point (KOP) for this pad. BLM Road 1148 runs adjacent to the south side of well pad RGU 43-23-198 and is the other key observation point. The landscape consists of nearly flat to gentle rolling ridges that separate the Piceance Creek drainage on the east from the Yellow Creek drainage on the west. The existing character of the landscape is modified in many areas and somewhat natural in others with several oil and gas related developments and mineral developments modifying the natural landscape in the area, such as well pads, access roads, pipeline corridors, and associated support facilities. The panoramic-type landscape and dominant form visual element is defined by the gentle flat rolling ridges and gentle sloping dry drainages. Dark green scattered pinyon-juniper on the slopes contrasting with the exposed buff colored soils provides the texture visual element to the landscape. The typical casual observers of the Proposed Action would most likely consist of energy development employees traveling to and from work sites in the area. Other casual observers that may notice the Proposed Action from the key observation points includes a low amount local ranchers, big game hunters, and OHV riders.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The construction of the well pads, the buried pipelines, and the access roads includes a total of 24 acres of ground disturbance. The exposed soils created by this construction activity and associated linear road and pipeline disturbance will modify the landscape character from the construction start until interim reclamation. This amount of exposed soil is proposed to exist for at least 18 months but may take longer depending on meeting requirements needed to start interim reclamation. These changes will be very noticeable to any casual observer at the KOPs during this time. Upon completing interim reclamation, exposed soils will be reduced to 6 acres and other formerly disturbed acres will then have vegetation growing, therefore reducing this to a moderate impact to casual observers. In areas that have pinyon and juniper woodlands removed, the visual impact of contrasting vegetation of

grass and shrubs with adjacent woodlands may be noticeable for several decades. This may be especially noticeable along pipelines, access roads, and the edges of the initial well pad construction. Above ground structures could cause a moderate long term impacts to casual observer, if not mitigated. To reduce both contrast and noticeability so that it meets VRM Class III objectives, the recommended mitigation is to paint all permanent above ground structures (on-site for six months or longer) including tanks, associated production equipment, and any piping and valves Juniper Green according to the BLM Standard Environmental Chart CC-001: June 2008. Overall, the implementation of the Proposed Action will not change the VRI Class IV rating and will meet the VRM Class III objective of partially retaining the existing character of the landscape

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 the well pads, water lines, and access roads would not be constructed, there would be no new impacts to visual resources in this area 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: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored, or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: The proposed activities may use regulated materials and will generate some solid and sanitary wastes. The potential for harm to human health or the environment is presented by the risks associated with spills of fuel, oil and/or hazardous substances used during oil and gas operations. Other accidents and mechanical breakdowns of machinery are also possible.

Substances used in the hydraulic fracturing process may be harmful to human health or the environment. However, freshwater-bearing formations and other resources suitable for human use or consumption are isolated from man made materials used in oil and gas operations through the use and cementing of surface casing, see 43 CFR §3162.5-2(d).

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the No Action alternative.

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. Where required by law or regulation to develop a plan for the prevention of releases or the recovery of a release of any substance that poses a risk of harm to human health or the environment, provide a current copy of said plan to the BLM WRFO.
3. When drilling to set the surface casing, drilling fluid will be composed only of fresh water, bentonite, and/or a benign lost circulation material that does not pose a risk of harm to human health or the environment (e.g., cedar bark, shredded cane stalks, mineral fiber and hair, mica flakes, ground and sized limestone or marble, wood, nut hulls, corncobs, or cotton hulls).
4. 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.
5. Construction sites and all facilities shall be maintained in a sanitary condition at all times; waste materials shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
6. As a reasonable and prudent lessee/operator in the oil and gas industry, acting in good faith, all lessees/operators and 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.
7. As a reasonable and prudent lessees/operator and/or right-of-way holder in the oil and gas industry, acting in good faith, all lessees/operators and 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 lessee/operator or 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 lessee/operator's expense. Such action will not relieve the lessee/operator of any liability or responsibility.

FOREST MANAGEMENT

Affected Environment: The Proposed Action is located within a productive exposure stand classes of Pinyon/Juniper woodlands as defined by a survey performed in 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 mature. Mature pinyon/juniper trees on productive exposure establish themselves as the dominant plant community on the site. Mature stands are valuable locally as a source of firewood for the public.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Table 8 below shows the estimated loss of woodland acres as a result of the Proposed Action. Following reclamation of the sites it is expected that pinyon and juniper will invade the site within 50-70 years and would develop a mature stand within 200-300 years. Under the Proposed Action at the WPX 42-26-198 wellpad approximately 4.84 acres of woodlands would be removed and at WPX 43-23-198 wellpad approximately 5.3 acres of woodland would be removed. Impacts would be long-term until woodlands regenerate successfully.

Table 8. Estimated loss of Woodland Acres

Project Name	Acreage In Woodlands				
	Pad Disturbance (ac)	Pipeline Disturbance (ac)	Acres Disturbed (Total)	Stand Class	Total Cords
RGU 42-26-198 well pad	4	0.84	4.84	Pinyon Juniper Productive Mature	34
RGU 43-23-198 well pad	5.3	0	5.3	Pinyon Juniper Productive Mature	38

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 pinyon/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 possible large fire.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under this alternative there would be no construction of wellpads, pipeline or waterlines and no removal of pinyon and juniper woodlands.

Cumulative Effects: Under this alternative, pinyon/juniper woodlands would not be removed and would continue to persist and age. The current stands contain several trees that posse old growth characteristics. If these stands are not removed they will continue to age eventually becoming decadent old growth stands.

Mitigation:

1. 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% 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.
 - i. Woody materials that are to be stockpiled along margins and not used in the topsoil should not exceed pile dimensions of 8 x 8 x 8 feet. Materials used in the stockpiles should be a variety of diameters, but should be no smaller than 6 inches in diameter. Additionally the piles should be no less than 30 feet apart.
 - c) Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. These trees shall be cut in four foot lengths (down to 4 inches diameter) and placed in manageable stacks immediately adjacent to a public road to facilitate removal for company use or removal by the public.
2. 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 within the Upper Yellow Creek pasture of the Square S allotment 06027. This allotment is permitted to the LOV Ranch and the Mantle Ranch for livestock grazing for a total of 3,522 Animal Unit Months (AUMs). An AUM is the amount of forage required to sustain a cow and her calf for a one month period. This pasture is permitted to the LOV Ranch for livestock grazing that currently occurs during the winter and spring period.

There are two rangeland improvement projects in the immediate area associated with the Proposed Action. The pipeline coming southeast from RGU 42-26-198 will cross both the pasture division fence and the Yellow Creek Lateral pipeline, range improvement project #0204420. 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 2,000 feet west of the proposed RGU 42-26-198 pad site and should not be affected by this project.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: If construction occurs during the period livestock are permitted in this area they will likely avoid the area adjacent to the proposed developments 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 production facilities. Though the Proposed Action 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.

Until construction disturbances are successfully reclaimed and re-vegetated there would be a short term loss of approximately two AUMs in the Upper Yellow Creek pasture. After successful final reclamation there would likely be a slight increase in forage production until the sites progress back to shrub domination. The short-term forage loss within this pasture would be less than the annual fluctuation in forage production, would not be expected to result in any need for changes in livestock numbers or grazing period.

Construction of the proposed pads 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 and 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.

Cumulative Effects: Agriculture, road development, and oil and gas development which have the potential to impact rangeland management would continue to occur. The proposed actions would remove forage temporarily in the above mentioned grazing pasture. After project construction has been completed and grass/forb communities have returned the overall 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: 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 maintain the function of the waterline and ensure that it is fully functional prior to scheduled grazing use in June of 2014. The operator will repair any future damage 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 must be repaired to BLM specifications in a timely manner (to prevent livestock movement between these two pastures).

REALTY AUTHORIZATIONS

Affected Environment: The natural gas pipelines would require rights-of-ways (ROWs) because the pipelines would be authorized to Bargath, a 3rd party gathering company. The access road and water pipelines would be on-unit (Oil & Gas Exploratory Unit COC68239X); therefore a ROW is not required. Table 9 describes the existing ROWs in the area the proposed well pads, natural gas pipelines, and water pipelines.

Table 9. Existing ROWs in the Project Area

Case File	Holder	Authorized Use
COC61921	White River Electric Association	Power Lines
COC62900		
COC75331		
<i>COC75517 pending</i>		
COC67003	Bopco	Access road
COC67991	Bargath	Natural gas pipelines
COC73844		
COC74154		
COC74566		
COC73180	WPX Energy Rocky Mountain	Water pipelines
COC73845		
COC74155		
COC74567		
COC75171		
COC53195	Rio Blanco County	County Road 31
COC65453	Encana Oil & Gas	Natural gas pipeline
COC67980	Enterprise Gas Processing	Natural gas pipelines
COC69548		
COC70129		
COC72181	Williams Northwest Pipeline	Natural gas pipeline

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The eight-inch natural gas pipeline (ROW COC76121) to serve the RGU 42-26-198 well pad would be 3,630 ft long, 40 ft wide, and contain approximately 3.33 acres. The RGU 11-25-198 well pad would be used as a staging area during construction of the gas and water pipelines associated with the RGU 42-26-198 well pad. An additional 30 ft width along the length of the pipeline would be needed for construction of the pipelines. The temporary use permit (TUP COC76121-01) for construction of the pipeline to serve the RGU 42-26-198 well pad would be 3,630 ft long and 30 ft wide plus the dimensions of the RGU 11-25-198 well pad (470 ft by 370 ft) for a total of approximately 6.5 acres. The eight-inch natural gas pipeline (ROW COC76327) to serve the RGU 43-23-198 well pad would be 170 ft long, 40 ft wide, and contain approximately 0.16 acres. The temporary use permit (TUP COC762327-01) for construction of the RGU 43-23-198 well pad would be 170 ft long, 30 ft wide, and contain approximately 0.12 acres. 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 and temporary use permits.
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 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 a ROS class of Semi Primitive Motorized (SPM). 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 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 guiding 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, RBC Road 31, and BLM Road 1148 will occur. This could affect recreationalists traveling these roads 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 relatively short duration of the construction period.

After interim reclamation and during the production phase there will be a long term loss of 6 acres of dispersed hunting and camping opportunities. 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 the well pads, water lines, and access roads would not be constructed, there would be no new impacts to recreation opportunities and experiences in this area 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, CO. Access to the area requires traveling approximately 20 miles west of Meeker on State Highway 64 to the junction of RBC Road 5 (Piceance Creek). Then travel 15 miles south on the paved RBC Road 5 to paved RBC Road 31. Next travel 4 miles on RBC Road 31 to RGU 42-26-198 well pad and another mile on BLM Road 1148 to RGU 43-23-198 well pad. A large developed facility associated with NSI production is located at the junction of RBC Road 31 and BLM Road 1148.

RBC Road 31 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 operations and mineral operations. BLM Road 1148 is an existing two-track road that crosses RBC Road 31 approximately one mile south of RGU 43-23-198 and continues north past this proposed well pad for approximately two miles to the intersection with BLM Road 1147.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The applicant's Surface Use Plan includes upgrading BLM Road 1148 from RBC Road 31 to RGU 43-23-198 well pad. This will improve access to this area for the general public. However, the well pad plans show portions of the proposed RGU 43-23-198 well pad covering a portion of BLM 1148. In order to not reduce or restrict existing public access in this area, it is recommended that BLM Road 1148 be maintained by the applicant in the existing or improved condition throughout the duration of the project.

There is potential for the pipeline routes to be used by recreational OHVs once vegetation is cleared and pipelines are installed. This may lead to illegal user created routes and potentially resource damage in these areas. These two proposed pipeline routes connect existing roads from

the proposed well pads to the existing oil and gas road located approximately 0.3 mile to the east and could be viewed as a “short cut” OHV route to connect the existing roads. In order to prevent unauthorized OHV and motorized vehicle use of these routes by the general public it is recommended that barriers be installed and maintained where these pipelines intersect with well pads or roads once the temporary frac line is removed in a manner that prevent the use of these pipelines by OHVs.

There is also an expected increase in traffic volume on the above described routes during the construction time period during the fall and winter 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 occur when roads and routes are saturated. To prevent road damage as a result of use of these roads when they are saturated is it 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 lifetime 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 increase as a result of this project is anticipated during the construction time with minor traffic increases during the rest of the life of the project. By allowing traffic to continue on BLM Road 1148, the public transportation system is not affected and public access remains similar to the condition prior to the implementation of the Proposed Action.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Because the well pads, water lines, and access roads would not be constructed, there would be no new impacts to the transportation system or access to public lands in this area as a result of this alternative.

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

Mitigation:

1. BLM Road 1148 will be maintained by the applicant in the existing or improved condition throughout the duration of the project.
2. Once the temporary frac line is removed, the operator will submit a Sundry Notice within 30 days specifying the materials or devices used for barriers where pipelines intersect with well pads or roads (4 locations) in order to prevent the use of these pipelines routes by general public motorized vehicles.
3. 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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INTERDISCIPLINARY REVIEW:

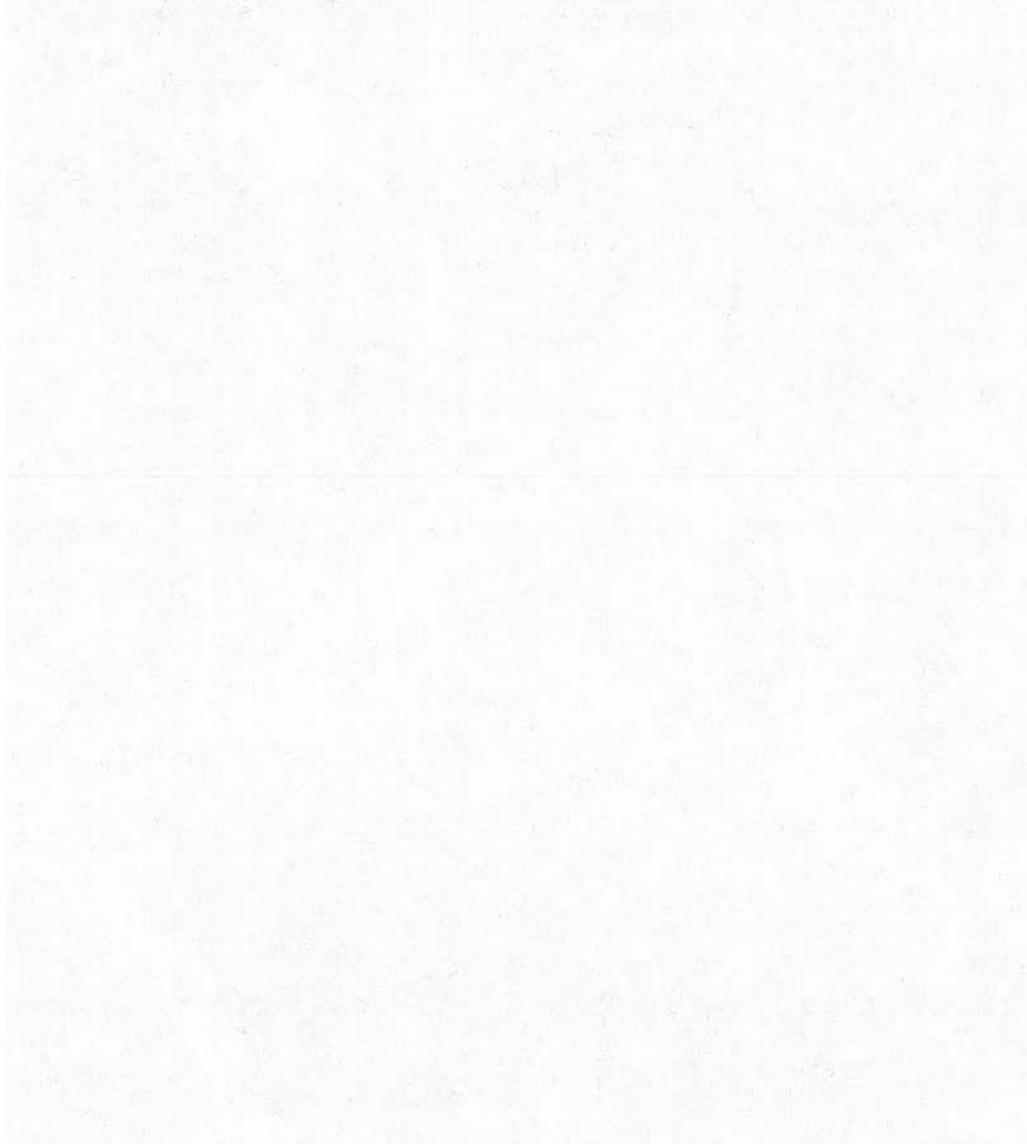
Name	Title	Area of Responsibility	Date Signed
Bob Lange	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	9/11/2013
Baili Foster	Seasonal Ecologist	Areas of Critical Environmental Concern; Special Status Plant Species	9/16/2013
Heather Woodruff	Rangeland Management Specialist	Forest Management	9/11/2013
Michael Selle	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	6/26/2013
Matt Dupire	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	9/18/2013
Lisa Belmonte	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	9/12/2013
Christina Ashley	Natural Resource Specialist	Hazardous or Solid Wastes	9/12/2013
Aaron Grimes	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	9/11/2013
Garner Harris	Zone Fire Mgt Officer	Fire Management	9/23/2013
Paul Daggett	Mining Engineer	Geology and Minerals	9/18/2013
Stacey Burke	Realty Specialist	Realty	9/19/2013
Melissa J. Kindall	Range Technician	Wild Horse Management	9/9/2013
Christina Ashley	Natural Resource Specialist	Project Lead – Document Preparer	10/22/2013
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	10/23/2013

ATTACHMENTS:

Figure 1: Geographic Extent of Two Well Pad Locations

Figure 2: Plan of Development Map for the RGU 42-26-198 Well Pad

Figure 3: Plan of Development Map for the RGU 43-23-198 Well Pad



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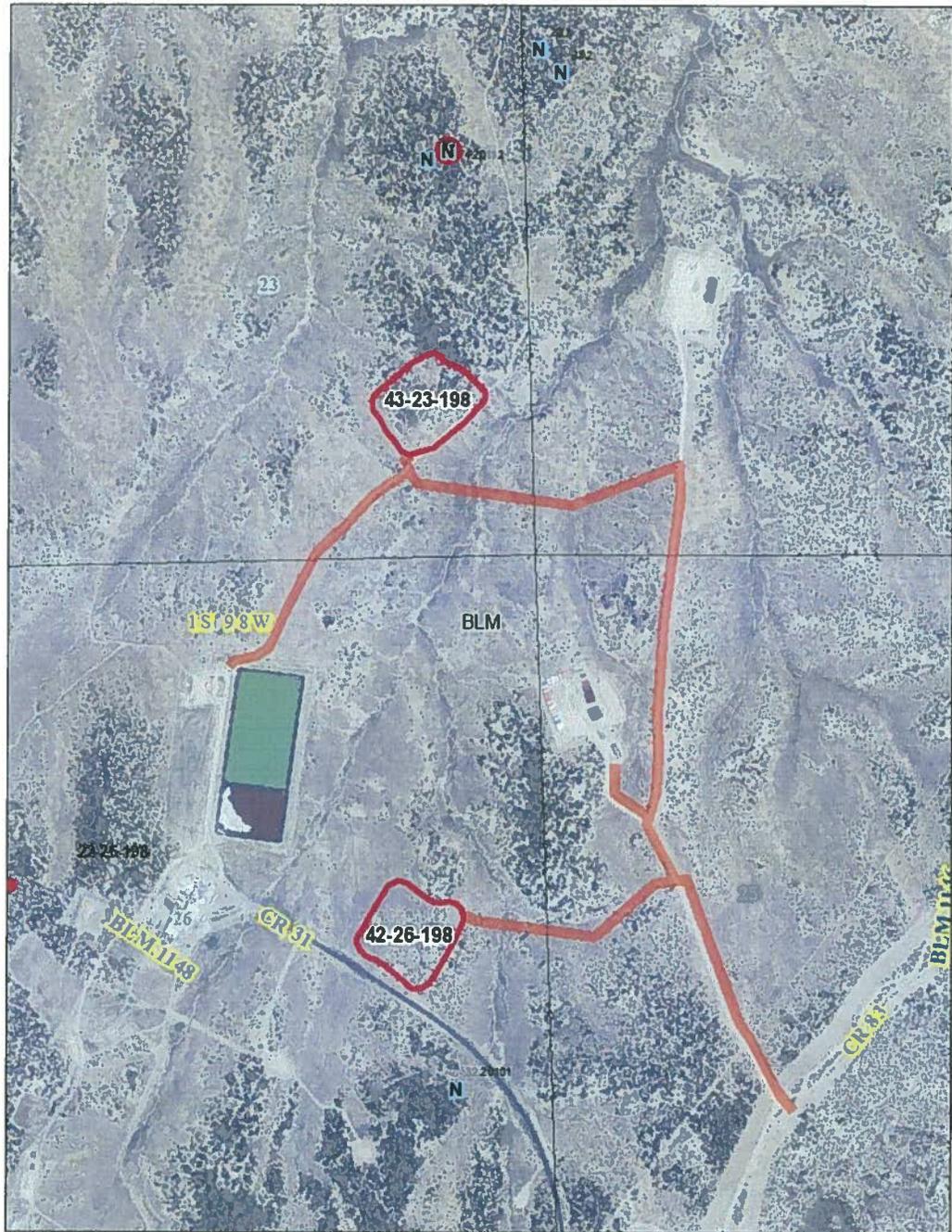


Figure 1. The figure above illustrates the geographic extent of the two well pad locations that will be constructed if the proposed action is implemented (symbolized as red polygons). In addition, the figure above shows proposed pipeline and access corridor routes (symbolized as a red line).

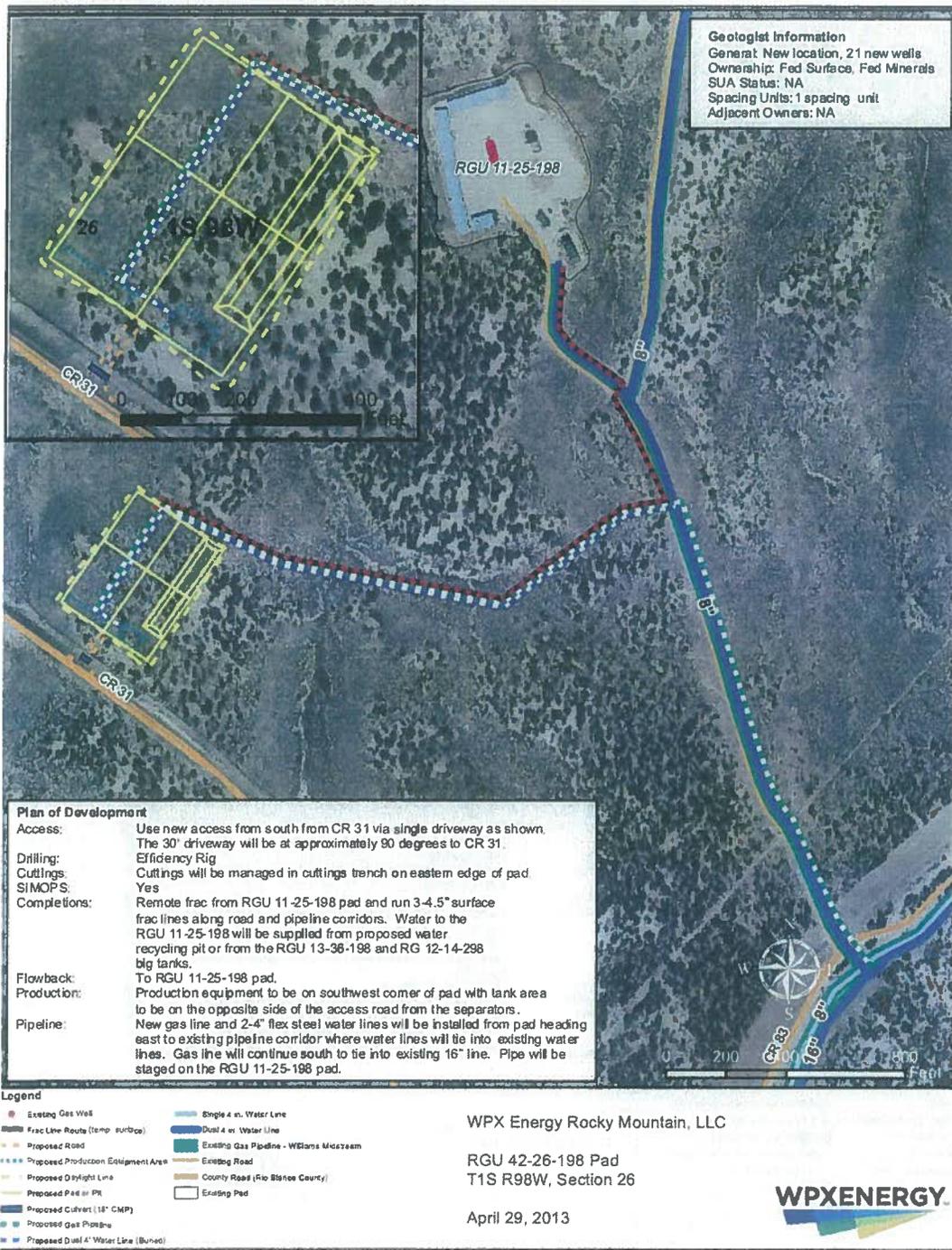


Figure 2. Plan of Development Map for the RGU 42-26-198 Well Pad



Figure 3. Plan of Development Map for the RGU 43-23-198 Well Pad

**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-110-2013-0084-EA**

BACKGROUND

WPX Energy Rocky Mountain LLC (WPX) proposes to construct the Ryan Gulch Unit (RGU) 42-26-198 and RGU 43-23-198 well pads (Figure 1). Construction of the well pads are proposed to begin in November 2013. Construction of the proposed 42-26-198 well pad and associated infrastructure would result in approximately 14 acres of surface disturbance. In addition, construction of the proposed 43-23-198 well pad and associated infrastructure would result in approximately 10 acres of surface disturbance.

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. Any impacts are local and short term and all disturbance will be reclaimed to pre-disturbance conditions after the life of the project.

Intensity

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

1. Impacts that may be both beneficial and adverse.

The depletion of the subsurface petroleum reservoir in general is a beneficial impact that adds to domestic energy reserves. While potentially harmful chemicals and additives may be used during drilling and completions operations, there is a possibility they could be released in volumes that could adversely affect human health or the environment; however, the proponent provides for safe containment and disposal of each type of potential waste, and the use of these materials are expected to enhance the beneficial recovery of the natural gas resource.

Proper and effective implementation of the proposed reclamation techniques could provide beneficial diversity to the currently existing plant community. The site locations for the proposed wells have been described as having minor components of invasive, annual cheatgrass. While surface impacts would be short-term and of low intensity, improper implementation of approved techniques for construction and reclamation has potential to adversely impact surface resources at a higher intensity and time duration than anticipated.

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 operator's drilling plan and Surface Use Plan (SUP) are properly implemented, and the developed mitigation is adhered to. All aspects of the APD are in compliance with required rules and regulations designed to protect public health and safety. The operator has self-certified their knowledge of rules and regulations related to all aspects of the Proposed Action, and those rules and regulations necessarily include those designed to protect public health and safety. The WRFO inspection program is designed to identify compliance issues. Drilling, production, and environmental inspections are performed to ensure compliance with the conditions under which the operations are permitted.

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 park lands, prime farmlands, wetlands, wild and scenic rivers, or other ecologically critical areas were identified in close proximity to the Proposed Action. The nearest designated Area of Critical Environmental Concern lies over one aerial mile to the north from the Proposed Action. Due to the distance from the nearest ACEC, there are no issues or concerns associated with the Proposed Action.

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

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.

No highly uncertain or unknown risks to the human environment were identified during analysis of the Proposed Action.

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

The Proposed Action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. Similar proposals to drill have been evaluated and approved, so authorization to drill the proposed well would not set a precedent for future actions.

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

Rangeland used for livestock grazing has been described as having a minor component of cheatgrass; implementation of the Proposed Action alone would not substantially contribute to the quality of the rangeland resources but an increase in construction-related oil and gas activities (reasonable but not yet proposed or speculated for the project area) could cumulatively result in irreversible changes to plant species composition by invasion of cheatgrass in disturbance areas (if reclamation activities are not properly implemented). Increased and expansive development in this area would contribute to a reduction in availability of forage and cover resources available for local wildlife.

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.

A Class III inventory identified no surface manifestation of cultural resources in the proposed project area. In 1980, during inventory for a proposed Nahcolite mine, pieces of what are believed to be a *Titanotheres* skull were located (Conner and Langdon 1980 compliance dated 1/2/1981) approximately 570 feet (173.8 meters) or less from the proposed 42-26-198 well pad center stake, suggesting fossils may be exposed at the surface in this area. A survey around the well pad will be required prior to construction to ensure no other fossil remains have been exposed due to weathering. Potential for any impacts to known cultural sites have been mitigated.

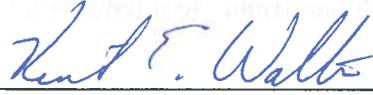
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973.

No special status plant species concerns have been identified. Cumulative water depletions from the Colorado River Basin are considered likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker and result in the destruction or adverse modification of their critical habitat. In 2008, BLM prepared a Programmatic Biological Assessment (PBA) that addressed water depleting activities associated with BLM's fluid minerals program in the Colorado River Basin in Colorado, including water used for well drilling, hydrostatic testing of pipelines, and dust abatement on roads. In response, the U.S. Fish and Wildlife Service (FWS) prepared a Programmatic Biological Opinion (PBO) that addressed water depletions associated with fluid minerals development on BLM lands. The PBO included reasonable and prudent alternatives which allowed BLM to authorize oil and gas wells that result in water depletion while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. The reasonable and prudent alternative authorized BLM to solicit a one-time contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in an amount based on the average annual acre-ft depleted by fluid minerals activities on BLM lands. This contribution was ultimately provided to the Recovery Program through an oil and natural gas development trade association. Development associated with this project would be entered into the WRFO fluid minerals water depletion log that is submitted to the Colorado State Office at the end of each Fiscal Year.

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. Furthermore, the operator has self-certified their knowledge of and commitment to follow existing rules and regulations related to all aspects of the Proposed Action.

SIGNATURE OF AUTHORIZED OFFICIAL:



Field Manager

DATE SIGNED:

10/24/13

**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 Wells on Federal RGU 42-26-198 and RGU 43-23-198 Well Pads

ENVIRONMENTAL ASSESSMENT NUMBER: DOI-BLM-CO-110-2013-0084-EA

DECISION

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-110-2013-0084-EA, authorizing the installation of pipeline, placement of temporary surface line for central frac operations, the construction of the 42-26-198 and 43-23-198 well pads and access roads, as well as the drilling, operations and maintenance of the thirty proposed wells.

Mitigation Measures

Timing Limitations

1. Activities (including construction, drilling etc.) associated with the Proposed Action will not be permitted to take place from January 1 through April 30 to avoid disruption of big game during the critical winter period. The WRFO will except/modify RMP-prescribed timing limitations for those projects (via Sundry Notice) where there is written documentation affirming consistency with the WMP.

Pre-Construction Activities and Notifications

2. The *designated Natural Resource Specialist* will be notified via email or phone 24 hours prior to beginning all construction-related activities associated with this project that result in disturbance of surface soils. Construction-related activities may include, but are not limited to, pad and road construction, clearing pipeline corridors, trenching, etc. Notification of all construction-related activities, regardless of size, that result in disturbance of surface soils as a result of this project is required.
3. Construction activity should take place entirely within the areas authorized in the ROW grants and temporary use permits.
4. 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.
5. 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.
6. The forty acre area around the proposed well pad 42-26 198 center stake must be inventoried before construction to determine if any more fossil bones have been exposed in the area where a Titanotheres skull was recorded during earlier inventory efforts.

7. 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 maintain the function of the waterline and ensure that it is fully functional prior to scheduled grazing use in June of 2014. The operator will repair any future damage to this water line caused by operational activities of the pit and associated facilities. Any damage to the pasture division fence caused by construction must be repaired to BLM specifications in a timely manner (to prevent livestock movement between these two pastures).
8. WPX shall notify NSI of their plans to drill wells on both well pads prior to the commencement of surface disturbing activities to coordinate the mobilization of equipment to the drill site and drilling operations to minimize interference with NSI operations.
9. WPX shall inform NSI during drilling and cementing of the surface casing and during fracing operations.
10. To assure that the road plans will be protective of soil resources, a road plan will be submitted via Sundry Notice for BLM approval for well pad 43-23-198 that describes and includes the following:
 - a) An updated plan diagram that shows proposed BMPs for culvert outlets and more specific design standards of the planned access roads planned.
 - b) Some documentation of coordination of the access road design with Natural Soda from the plant to the beginning of BLM Road 1148.
 - c) How public access will be maintained on BLM Road 1148 during construction, drilling and production.
11. To avoid additional disturbance that may result in erosion of soils around pads, when brush is not sufficient to maintain perimeter brush barrier as shown on Plat 5 E for well pads, waddles or fiber rolls will be used instead of toe trenches for perimeter control. Alternatively a suitable BMP plan may be developed to be approved by BLM that does not require trenches for perimeter control.
12. 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.

Cultural and Paleontological Resource Notifications

13. WPX 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.
14. 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 Authorized Officer (AO). WPX 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. WPX, 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.

15. Pursuant to 43 CFR 10.4(g), WPX 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), WPX must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
16. WPX is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
17. If any paleontological resources are discovered as a result of operations under this authorization, WPX or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

Operations

18. 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.
19. The operator shall prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to migratory waterfowl, shorebirds, wading birds and raptors during completion and after completion activities have ceased. Methods may include netting or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion.
20. 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.

Post-Construction Notifications

21. Once the temporary frac line is removed, the operator will submit a Sundry Notice within 30 days specifying the materials or devices used for barriers where pipelines intersect with well pads or roads (4 locations) in order to prevent the use of these pipelines routes by general public motorized vehicles.

22. 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.
23. 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.

Pre & Post-Drilling Notifications

24. Prior to beginning drilling operations, the operator will submit via Sundry Notice a description of the backflow preventer or other method used to protect water quality at diversion sites in the Piceance Creek watershed and that describes the point(s) of diversion for industrial water rights used for freshwater supply from the Piceance Creek watershed.
25. The *designated Natural Resource Specialist* will be notified via email or phone 24 hours prior to well spud (breaking ground for drilling surface casing).
26. The *designated Natural Resource Specialist* will be notified via email or phone 24 hours prior to commencing completion operations.
27. To indicate ownership of aquifer zone impacts that could occur during drilling and completion operations a fluorescent dye other than Rhodamin WT should be added to all drilling fluids used during the surface casing drilling operations.
28. When drilling to set the conductor and surface casing, drilling fluid will be composed only of fresh water, bentonite, and/or a benign lost circulation material that does not pose a risk of harm to human health or the environment (e.g., cedar bark, shredded cane stalks, mineral fiber and hair, mica flakes, ground and sized limestone or marble, wood, nut hulls, corncobs, or cotton hulls).

Resource-Specific Mitigation During Construction, Drilling, and Production: Access and Transportation

29. BLM Road 1148 will be maintained by the applicant in the existing or improved condition throughout the duration of the project.
30. All activity shall cease when soils or roads surfaces become saturated to a depth of three inches unless approved by the Authorized Officer.
31. WPX will treat all access roads with water and/or a chemical dust suppressant during construction and drilling 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.
32. 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 runoff and summer convective storms. Provide adequate drainage spacing to avoid accumulation of water in ditches or on road surfaces.
33. 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.

34. 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.
35. To reduce erosion adjacent to roads and protect water quality in downstream public lands by maintaining the drainage features of the access roads, access roads will be surfaced with six inches of road base and/or gravel. Maintenance will include restoring the travel surface shape, road surfacing to maintaining an effective all-weather surface during construction, drilling, and production of the wells.

Hazardous or solid wastes

36. 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.
37. Where required by law or regulation to develop a plan for the prevention of releases or the recovery of a release of any substance that poses a risk of harm to human health or the environment, provide a current copy of said plan to the BLM WRFO.
38. 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.
39. 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.
40. As a reasonable and prudent lessee/operator in the oil and gas industry, acting in good faith, all lessees/operators and 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.
41. As a reasonable and prudent lessees/operator and/or right-of-way holder in the oil and gas industry, acting in good faith, all lessees/operators and 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 lessee/operator or 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 lessee/operator's expense. Such action will not relieve the lessee/operator of any liability or responsibility.

Pre-Reclamation Notification

42. The *designated Natural Resource Specialist* will be notified 24 hours prior to beginning all reclamation activities associated with this project via email or by phone. Reclamation activities may include, but are not limited to, seed bed preparation that requires disturbance of surface soils, seeding, or constructing exclosures (e.g., fences) to exclude livestock from reclaimed areas.

Reclamation and Weed Management

43. All seed tags will be submitted to the *designated Natural Resource Specialist* within 14 calendar days from the time the seeding activities have ended via Sundry Notice. The sundry will include the purpose of the seeding activity (i.e., seeding well pad cut and fill slopes, seeding pipeline corridor, etc.). In addition, the SN will include the well or well pad number associated with the seeding activity, if applicable, the name and phone number of the contractor that performed the work, the method used to apply the seed (e.g., broadcast, hydro-seeded, drilled), whether the seeding activity represents interim or final reclamation, an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.
44. 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 Standard Seed Mix 2, as shown in the below table.

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

45. The BLM recommends Standard Seed Mix 2 for all reclamation activities. Seeding rates are shown for drill seeding rates in the above table, 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 Natural Resource Specialist (NRS) 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.
46. All seed used must be certified and free of noxious weeds. All seed tags will be submitted to the designated NRS 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.
47. 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:
- a) 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.
 - b) 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.
48. The operator 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, WPX must submit Pesticide Use Proposals for the use of herbicides appropriate for control/eradication of the known noxious and invasive nonnative species.
49. 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% 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.
 - a. Woody materials that are to be stockpiled along margins and not used in the topsoil should not exceed pile dimensions of 8 x 8 x 8 feet. Materials used in the stockpiles should be a variety of diameters, but should be no smaller than 6 inches in diameter. Additionally the piles should be no less than 30 feet apart.
 - c) Trees that must be removed for construction and are not required for reclamation shall be cut down to a stump height of 6 inches or less prior to other heavy equipment operation. These trees shall be cut in four foot lengths (down to 4 inches diameter)

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

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

Information Sharing & Reclamation Monitoring

51. In an attempt to track interim and final reclamation of federal actions related to the development of federal mineral resources, the operator shall provide the *designated Natural Resource Specialist* with geospatial ‘as-built’ data in a format compatible with the WRFO’s ESRI ArcGIS Geographic Information System (GIS) (e.g., GIS point and polygon features). These data shall be submitted via Sundry Notice (SN) and will be used to accurately locate and identify all geographic as-built (i.e., constructed and design implemented) features (including well pad total disturbance, rights-of-ways, access roads, pipelines, or any other disturbance feature associated with this project).
- These data shall be submitted within 60 days of construction completion. If the operator is unable to submit the required information within the specified time period, the operator shall notify the designated Natural Resource Specialist via email or by phone, and provide justification supporting an extension of the required data submission time period.
 - GIS polygon features may include, but are not limited to: full well pad footprints (including all stormwater and design features), constructed access roads/widths, existing roads that were upgraded/widths, and pipeline corridors.
 - Acceptable data formats are: (1) corrected global positioning system (GPS) files with sub-meter accuracy or better; (2) ESRI shapefiles or geodatabases; or (3) AutoCAD .dwg or .dxf files. If possible, both (2) and (3) should be submitted for each as-built feature. Geospatial data must be submitted in UTM Zone 13N, NAD 83, in units of meters. Data may be submitted as: (1) an email attachment or (2) on a standard compact disk (CD) in compressed (WinZip only) or uncompressed format. All data shall include metadata, for each submitted layer, that conforms to the *Content Standards for Digital Geospatial Metadata* from the Federal Geographic Data Committee standards. Questions shall be directed to WRFO BLM GIS staff at (970) 878-3800.

If the operator is unable to send the data electronically, the operator shall submit the data on compact disk(s) to:

BLM, White River Field Office
Attn: Natural Resource Specialist
220 East Market Street
Meeker, Colorado 81641

Internal and external review of the reporting process and the adequacy of the associated information to meet established goals will be conducted on an on-going

basis. New information or changes in the reporting process will be incorporated into the request, as appropriate. Subsequent permit application processing may be dependent upon successful execution of this request, as stated above.

If for any reason the location or orientation of the geographic feature associated with the **Proposed Action changes**, the operator shall submit updated GIS “As-Built” data to designated Natural Resource Specialist within 7 calendar days of the change. This information shall be **submitted via Sundry Notice**.

52. The operator will be required to meet with the WRFO reclamation staff in March or April of each calendar year and present a comprehensive work plan. The purpose of the plan is to provide information pertaining to reclamation activities that are expected to occur during the current growing season. Operators shall also provide a map that shows all reclamation sites where some form of reclamation activity is expected to occur during the current growing season.
53. A Reclamation Status Report will be submitted electronically via email and as a hard-copy to WRFO Reclamation Coordinator, Brett Smithers (brett_smithers@blm.gov). Please submit the hardcopy to:

BLM, White River Field Office
220 East Market Street
Meeker, Colorado 81641
Attn: Brett Smithers

The Reclamation Status Report will be submitted annually for all actions that require disturbance of surface soils on BLM-administered lands as a result of the Proposed Action until it is determined that reclamation of the site has met all required objectives of that particular reclamation phase.

Actions may include, but are not limited to, well pad and road construction, construction of ancillary facilities, or power line and pipeline construction. The Reclamation Status Report will be submitted by September 30th of each calendar year, and will include the well number, API number, UTM coordinates (using the NAD83 datum, Zone 13N coordinate system), project description (e.g., well pad, pipeline, etc.), the COC number, legal description, , 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, reclamation status (e.g., Phase I Interim, Phase II Interim, or Final), whether the well pad or pipeline has been re-vegetated and/or re-contoured, percent of the disturbed area that has been reclaimed, method used to estimate percent area reclaimed (e.g., qualitative or quantitative), technique used to estimate percent area reclaimed (e.g., ocular, line-intercept, etc.), date seeded, photos of the reclaimed site, estimate of acres seeded, seeding method (e.g., broadcast, drilled, hydro-seeded, etc.), additional notes as needed, and contact information for the person responsible for developing the report.

The report will be accompanied with maps and GIS data showing each discrete point o (i.e., well pad), polygon (i.e., area where seed was applied for Phase I and/or Phase II interim reclamation or area reclaimed for final reclamation), or polyline (i.e., pipeline) feature that was included in the report. Geospatial data shall be submitted: for each completed activity electronically to the designated BLM staff person responsible for the initial request and in

accordance with WRFO geospatial data submittal standards (available from WRFO GIS Staff, or on the WRFO website). Internal and external review of the WRFO Reclamation Status Report, and the process used to acquire the necessary information will be conducted annually, and new information or changes in the reporting process will be incorporated into the report.

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.

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-110-2013-0084-EA and it was found to have no significant impacts, thus an EIS is not required.

PUBLIC INVOLVEMENT

Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 4/30/2013. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 5/1/2013.

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. Multiple wells drilled from a single well pad location reduces the total surface disturbance required for conventional drilling from single well locations, while producing from a more vast subsurface reserve area. Allowing for oil and gas drilling is consistent with the White River Record of Decision and Approved Resource Management Plan (ROD/RMP) decision to "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

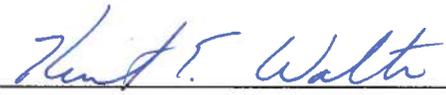
ADMINISTRATIVE REMEDIES

State Director Review

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

Appeal

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

SIGNATURE OF AUTHORIZED OFFICIAL: 
Field Manager

DATE SIGNED: 10/24/13

