



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



**Environmental Assessment CO-110-2005-219-EA
Casefile Number: COC69157**

Finding of No Significant Impact and Decision Record

PICEANCE DEVELOPMENT PROJECT

Location: Piceance Basin, Northwest Colorado

Applicant/Address:

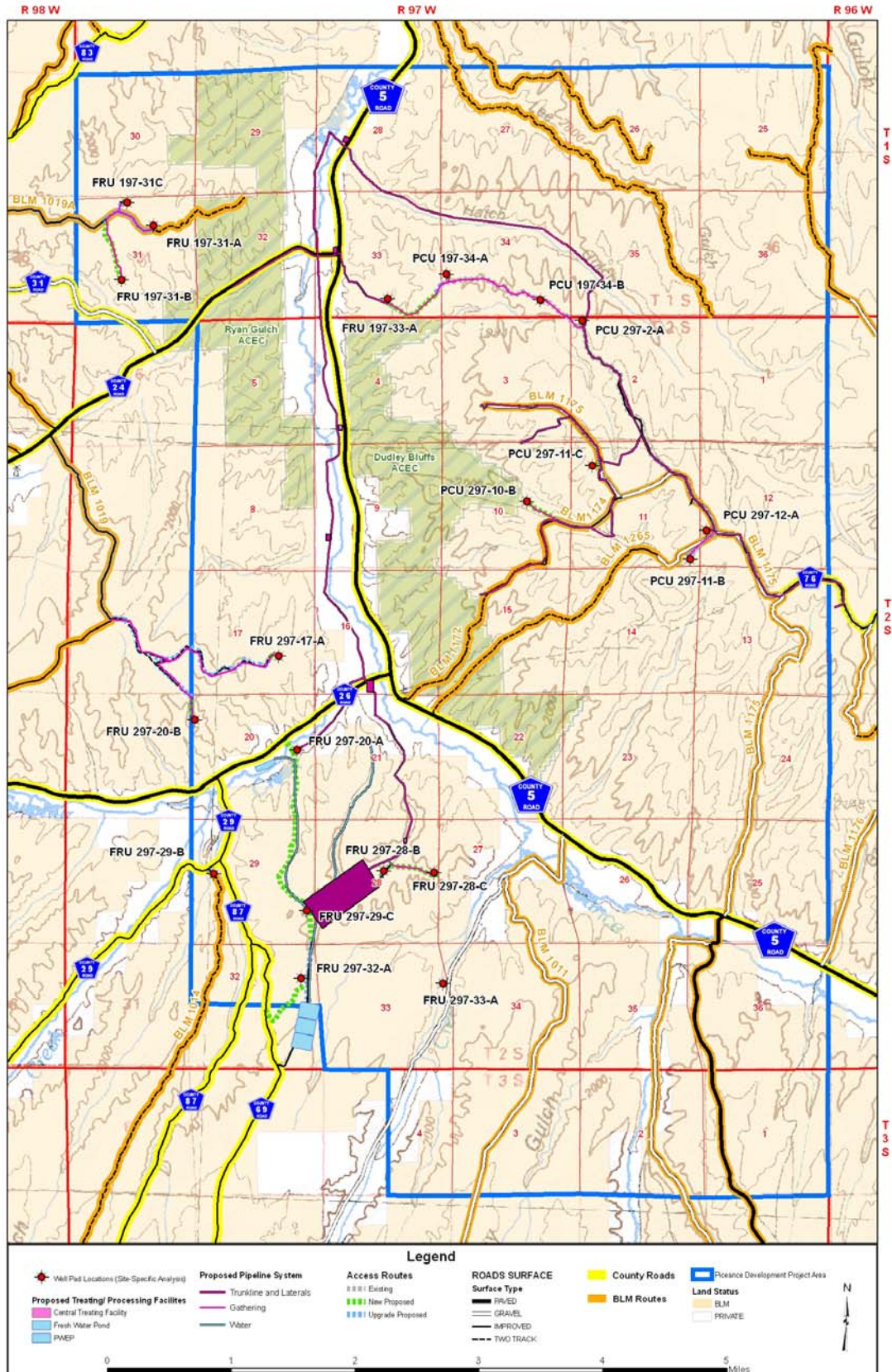
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Project Components; Proposed Action



Finding of No Significant Impact / Decision Record

White River Field Office

CO-110-2005-219-EA

INTRODUCTION:

The Bureau of Land Management (BLM) has conducted an environmental analysis (EA) CO-110-2005-219-EA) for a proposed action, to address development of natural gas production, processing and transportation facilities, in the Piceance Basin area in Rio Blanco County, Colorado. The project would include the construction, operation, and maintenance of 1) natural gas treating and processing facilities, including a central treating facility (CTF), produced water (PW) injection wells, tank batteries, slug catcher and condensate sales/loading facility, gas sales stations, and fresh water wells, but not including a new private access road to the CTF, nor the produced water evaporation ponds; 2) a trunk pipeline system, including 26 and 30 inch steel trunklines, a 20 inch steel gas sales pipeline, 3 inch condensate pipelines, and 3, 4, 6, and 8 inch combined liquids pipelines; and 3) natural gas drilling operations, including 20 well pads with up to 9 well bores per pad, and associated access roads. The additional 100 well site locations have either already been approved by BLM as part of other EAs (about 20 locations) or have not yet been identified; therefore the remaining 80 well locations will be analyzed on a case by case basis as Applications for Permit to Drill (APDs) are submitted. ExxonMobil Production Company has filed a right-of-way application (COC69157) pursuant to the regulations at 43 CFR Part 288 for the first two groups of facilities listed above. Actions involving the third group would be authorized pursuant to 43 CFR Part 3160.

ExxonMobil is the operator of the Piceance Creek and Freedom Units, with producing natural gas wells in the Wasatch and Mesaverde formations. The Piceance Creek Development Project would increase production of natural gas and associated hydrocarbon liquids from both formations. These resources would be transported throughout the United States through several major interstate transportation systems which begin in, or pass through the vicinity of the project area.

The underlying need for the proposal would be met while accomplishing the objectives of allowing ExxonMobil to develop additional domestic reserves of natural gas which could in turn aid in the reduction of dependence on foreign sources.

The EA is available at the White River Field Office (WRFO) and incorporated by reference in this Finding of No Significant Impact (FONSI) determination. A no action alternative and three action alternatives were analyzed in the EA.

The EA considered the Proposed Action (Alternative A), the Proposed Action without a new access road to the Central Treating Facility and without produced water evaporation ponds but rather additional injection wells (Alternative B), the Proposed Action without the new access road (Alternative C), and the No Action Alternative (Alternative D).

PLAN CONFORMANCE AND CONSISTENCY:

The proposed action and alternatives have been reviewed and found to be in conformance with the following BLM Land Use Plan and associated decision:

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP)

Date Approved: July 1, 1997

Decision Number/Page: L-1 – “Issue applicable land use authorizations for the siting of public and private facilities on available public lands” (see pages 2-49 and 2-50).

FINDING OF NO SIGNIFICANT IMPACT DETERMINATION:

Based upon a review of the EA and the supporting documents, I have determined that the project, as described in Alternative B, not allowing a new access road to the Central Treating Facility and not allowing evaporation ponds, when implemented with the BLM-required mitigation measures described below and the Operator Committed Mitigation Measures described in Appendix C of the EA, is not a major federal action and will not significantly affect 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 in 40 CFR 1508.27 and do not exceed those effects described in the White River Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS). Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of the project as described:

Context: The study area for cumulative impacts is the White River Resource Area (WRRRA). The WRRRA is managed by the WRFO. Of the 2.6 million acres of land within the WRRRA, the surface of 1,455,900 million acres is managed by the BLM (BLM, 1997). The primary human influences on the project area are oil and gas development, historic oil shale and nahcolite mining, livestock grazing, and dispersed recreation. Existing environmental conditions in the project area reflect changes based on past projects and activities. The project area is rural and relatively undeveloped but is experiencing growth related to energy development.

The project involves several components located within a 29,680 acre project area. A total of 26,160 acres of the project area is public land managed by the BLM. Approximately 1740 acres of land administered by the BLM, initially, and 795 acres of land administered by the BLM over the life of the project, would be disturbed.

The project area lies within the Uinta-Piceance Basin, one of five western basins to be inventoried under provisions of the Energy Policy and Conservation Act of 2000 (EPCA) to provide an estimate of undiscovered, technically recoverable oil and gas resources. The results of the EPCA study indicate that reserves of over sixteen trillion cubic feet of natural gas could be located in the federal mineral estate of this basin. Several major natural gas transmission systems begin in or pass through this basin. These systems supply natural gas to a large part of the United States.

Intensity: The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into BLM's Critical Elements of the Human Environment list (H-1790-1), and supplemental Instruction Memorandum, Acts, regulations and Executive Orders. The following have been considered in evaluating intensity for this proposal:

1. Impacts may be both beneficial and adverse.

Alternative B would impact resources as described in the EA, including potential impacts to air, soil, surface and groundwater, vegetation and wildlife. Mitigating measures to reduce impacts to these resources were incorporated in the design of the action alternatives. Additional measures, to be applied as conditions of approval and/or special stipulations, were identified in the EA. None of the environmental effects discussed in detail in the EA and associated appendices are considered significant, nor do the effects exceed those described in the White River FEIS.

Production, processing and delivery of additional natural gas supplies to major transportation systems serving the U.S. would be a beneficial effect of the project.

2. The degree to which the selected alternative will affect public health or safety

The BLM has selected Alternative B with mitigation to authorize construction, operation, and maintenance of a trunk pipeline system, well pads and associated roads and pipelines together with the drilling of natural gas wells, and natural gas treating and processing facilities without development of a new private access road to the Central Treating Facility (CTF), and without development of produced water evaporation ponds, as the environmentally preferred alternative. This alternative with mitigation would achieve the balance of resource protection and beneficial use of the human environment envisioned by the National Environmental Policy Act (NEPA).

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

There are no prime/unique farmlands, parklands, wild and scenic rivers, wilderness areas, National Landscape Conservation Areas, National Monuments, National Parks in the project area. The Ryan Gulch and Dudley Bluffs Areas of Critical Environmental Concern are within the project area, but no project related activities are sited in these areas. While the

project area crosses the 100-year floodplain of Piceance Creek and its tributaries, they would not be affected by construction of the CTF, tank batteries, gas sales stations slug catcher, or condensate sales/loading facility. Some pipelines cross the floodplain, but measures designed to mitigate impacts are identified in the EA and will be incorporated in authorizing documents as special stipulations and/or conditions of approval.

Appropriate cultural resource surveys were conducted on all areas proposed for surface disturbing activities. No cultural resources would be directly impacted by the project. Avoidance, and mitigation measures incorporated as conditions of approval and/or special stipulations would minimize the potential for impacts to important cultural resources.

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

Five government agencies, one county government, two individuals, four organizations, and three operators commented on the preliminary Environmental Assessment. In the analysis of comments, 162 separate comments were identified. All comments were reviewed and considered. Most of the comments were made by other agencies. Their comments were technical in nature and focused on clarification regarding those resources for which they have regulatory responsibilities. Responses to the comments are located on pages 263 through 316 of the EA.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The actions described in Alternative B are not unique or unusual. The BLM has experience implementing similar actions in similar areas. The environmental effects to the human environment are fully analyzed in the EA. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.

6. The 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 actions considered in the selected alternative were considered by the interdisciplinary team within the context of past, present, and reasonably foreseeable future actions. Significant cumulative effects are not predicted. A complete analysis of the direct, indirect, and cumulative effects of the selected alternative and all other alternatives is described in the EA. The actions contemplated do not force or require other actions not reviewed in the EA to take place at some point in the future. Excluding the evaporation ponds would be consistent with policy (see Onshore Order Number 7) and precedent. To include this element would represent a precedent for future actions.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts – which include connected actions regardless of land ownership.

The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted. A complete disclosure of the effects of the project is contained in the EA, particularly on pages 227 through 240.

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

A cultural inventory has been completed for the proposed action, and consultation with SHPO has been completed in accordance with Section 106 of the NHPA. The project will not directly affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it directly cause loss or destruction of significant scientific, cultural, or historical resources. This factor notwithstanding, there is, in the case of any such project, a potential for indirect impacts to these types of resources.

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 of 1973, or the degree to which the action may adversely affect: 1) a proposed to be listed endangered or threatened species or its habitat, or 2) a species on BLM's sensitive species list.

Mitigating measures to reduce impacts to special status plant and animal species have been incorporated into the design of the action alternatives. Other conservation measures have been identified in the EA for incorporation as conditions of approval and/or special stipulations. Four species of Colorado River endangered fish may be affected by the project. These include the razorback sucker, Colorado pikeminnow, bonytail, and humpback chub. Since no habitat for Colorado River Endangered Fish occurs in the project area, and the nearest existing population of any of these species (i.e., Colorado pikeminnow) is separated from the project area by about 15 miles of Piceance Creek and about 40 miles of the White River, direct impacts due to water quality degradation (e.g., erosion, sediment yield, and potential spills) are unlikely to occur. These species could, however, be indirectly affected by water withdrawals from the Piceance Creek Basin that deplete or degrade the flow of downstream waters into the Green and Colorado rivers. The determination for this project is “may affect, likely to adversely affect” for the Colorado River endangered fishes under all action alternatives because of water depletion to the Colorado River System. Bald eagles (threatened) make dispersed, but extensive use of the project area during autumn and winter when small game prey and big game and other carrion is available, but use of any particular locale within the project area would be opportunistic and inconsistent. No bald eagle nest sites or winter roosting areas have been documented within the project area. The determination for the proposed project is “may affect, not likely to adversely affect” for bald eagles and their habitat.

Although two listed species of threatened plants, Dudley Bluffs bladderpod and Dudley Bluffs twinpod, occupy habitat within the project boundary, it has been determined that they

may be affected but are not likely to be adversely affected because no surface disturbing activities are currently proposed for known or potential habitat. Because these species occur within the boundaries of the project area and because the locations of up to 80 future ExxonMobil natural gas well pads and associated facilities cannot be defined at this time, some potential exists that the species may be affected. Prior to BLM approving any future surface disturbing or potentially impacting activity at such locations within known or potential habitat for a listed, proposed or candidate plant species, a plant inventory will be conducted by a qualified botanist, and a site-specific environmental analysis (EA) will be completed on the action. Based on results of this site-specific plant survey, the conservation measures described in the Biological Opinion would be applied to any potentially impacting activity. Informal consultation with the FWS may well be conducted during preparation of the EA. Formal consultation with the FWS will occur if the EA indicates a finding of possible impact to a listed species and the proposed action cannot be moved to avoid the impact. Mitigation measures provided by the FWS should insure compliance and reduce potential impacts to insignificant levels. The same procedures will be applied at any future proposed locations for produced water injection wells.

Although the project area contains suitable habitat for the White River penstemon (candidate) and Graham's beardtongue (proposed), no plants have been found through inventories for this project, or others in the area. Section 7 ESA Consultation was done 8 February 2007, and the USF&WS concurred with BLM's determination on 19 April 2007.

10. Whether the action threatens a violation of a federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.

The project does not violate any known federal, state, local or tribal law or requirement imposed for the protection of the environment. A letter with accompanying materials describing the project was sent to Northern Ute Tribe September 6, 2006 requesting comments and asking if they wished to be considered a consulting party. The Northern Ute Tribe did not reply to this correspondence.

DECISION:

It is my decision to implement Alternative B, and to issue a right-of-way (COC69157) for the construction, operation, and maintenance of 1) natural gas treating and processing facilities, including a central treating facility, produced water injection wells, tank batteries, slug catcher and condensate sales/loading facility, gas sales stations, and fresh water wells, but not including a new private access road to the CTF, nor the produced water evaporation ponds; 2) a trunk pipeline system, including 26 and 30 inch steel trunklines, a 20 inch steel gas sales pipeline, 3 inch condensate pipelines, and 3, 4, 6, and 8 inch combined liquids pipelines. Natural gas drilling operations, including 20 well pads with up to 9 well bores per pad, and associated access roads described in the EA will be approved an additional 80 well pad locations will be analyzed on a case by case basis as Applications for Permit to Drill (APDs) are submitted. The facilities would be constructed, operated and maintained as described in the Alternative B section of

Chapter 2 in the attached environmental assessment. The activities described in Alternative B are in concert with the objectives of the White River ROD/RMP in that they would allow development of federal oil and gas resources in a manner that provides reasonable protection for other resource values. Protection for other resource values will be assured by implementation of the mitigation measures described below and the Operator Committed Mitigation Measures described in Appendix C of the EA. Those mitigation measures will be attached to the right-of-way grant as stipulations and to APDs as Conditions of Approval.

While it is my decision not to approve the development and use of the proposed produced water evaporation ponds, this decision does not preclude the potential for use of other produced water disposal practices, which would be reviewed on a case by case basis, subject to appropriate environmental analyses.

Authorities: The authority for this decision is contained in the Mineral Leasing Act of 1920, and the regulations at 43 CFR Parts 2880 and 3160.

Compliance and Monitoring: The construction of the proposed facilities will be monitored on a random basis during and immediately after the construction period by realty specialists and/or natural resource specialists from the White River Field Office. BLM petroleum engineering technicians will monitor any drilling operations as they take place.

Terms / Conditions / Stipulations: All mitigation measures applicable to Alternative B will be incorporated in authorizing documents as special stipulations and conditions of approval. These specific mitigation measures are listed below.

Alternatives Considered: The EA considered the Proposed Action (Alternative A), the Proposed Action without a new access road to the Central Treating Facility and without produced water evaporation ponds (Alternative B), the Proposed Action without the new access road (Alternative C), and the No Action Alternative (Alternative D). The No Action Alternative was not chosen because it would not meet the applicant's need, and would effectively preclude the full recovery of the federally owned resources. The Proposed Action and Alternative C were not chosen because they would authorize large scale produced water evaporation ponds that are not considered to be a suitable use of the public lands at this time (see Rationale).

Rationale for Decision: The large scale evaporation ponds identified in the proposed action would be unique to the public lands in Northwest Colorado. A degree of uncertainty remains with respect to potential effects to the human environment.

The quality of ExxonMobil's produced water is extremely poor. As shown in Table 36 of the EA, produced water in Pond A at the LOV Ranch PWEF contained benzene concentrations in excess of the Maximum Contaminant Level. At the inlet pipe, benzene and toluene both occurred in amounts significantly higher than statewide standards. TDS (total dissolved solids) concentration, an indicator of salinity, is also very high in the produced water in Pond A at the LOV Ranch PWEF (over 16,000 mg/L).

Exxon Mobil expects that BTEX and VOC control efficiencies at the CTF will be better than 95%. However, based on PW sampled at inlet "A" (typical water quality of produced water prior to treatment), initial concentrations of benzene were 5,260 µg/L. With 95% treatment efficiency at the CTF, benzene levels would be reduced to 263 µg/L, which exceeds the groundwater maximum contaminants level (MCL) by 50 times. Treatment at the CTF would not reduce values of inorganics such as chlorides.

Impoundment of water of this poor quality presents the Bureau with management issues and concerns. On pages 102 and 103 of the EA it states that unintentional leaks from the proposed evaporation ponds could potentially occur, that the potential for leakage from the ponds into the groundwater exists, and that the potential for drift outside of the confines of the ponds onto adjacent lands also exists, after mitigation measures are applied.

Section 4.6 of the Technical Supplement to Accompany Environmental Assessment for ExxonMobil's Piceance Development Project also states that, while mitigation measures designed to prevent overspray would be utilized, there is still a possibility that some degree of overspray could occur. There is no indication of what wind speed would require a shut down of the proposed evaporators in order to prevent overspray, and steps to determine that speed would not be taken until after operations began. This would only increase the potential for accidental overspray to occur. If the required wind speed is low enough, the effectiveness of the evaporation ponds themselves would be called into question due to low evaporation rates in the absence of mechanical assistance.

As noted in the EA, even with identified mitigations in place, there may be an increased risk of migratory birds coming in contact with the contents of these ponds due to their large surface area (see page 58), and impacts to soil, vegetation and surface/groundwater may still occur through the build up of salt and BTEX. In the long term, approximately 11,200,000 cubic feet of contaminated sediment could accumulate in the ponds themselves. Disposal method of and the characterization of these sediments is uncertain at this time.

These impacts, then, are not preventable, and mitigation becomes a matter of reacting to a problem, and attempting to clean it up afterwards. This creates an unacceptable, long term liability issue for the Bureau, which is the basis for injection being identified as the preferred method of disposal. Alternative B reduces potential exposure of contaminants to soils and surface/protected groundwater aquifers on public lands while allowing ExxonMobil to expand production without setting a precedent for future water disposal activities.

While eliminating the produced water evaporation ponds has the potential for increased surface disturbance as a result of developing new pads for injection wells, there are options for minimizing this increase. There are existing, non-producing wells which could be converted to injection wells without additional surface disturbance. There is also the potential for developing multiple injection well pads utilizing directional drilling. Finally, this alternative does not preclude the development and use of new technologies that could minimize the need for development of new wells. The use of these alternatives would be maximized to the extent feasible.

Mitigation Measures:

1. The operator will be responsible for complying with all local, state, and federal air quality regulations as well as providing documentation to the BLM that they have done so. To minimize production of fugitive particulate matter (fugitive dust) from associated access roads, vehicle speeds must not exceed 15 mph or dust plume must not be visible at appropriate designated speeds for road design. In addition, the application of a BLM approved dust suppressant (e.g. water or chemical stabilization methods) will be required during dry periods when dust plumes are visible at speeds less than or equal to 15 mph. Surfacing access roads with gravels will also help mitigate production of fugitive particulate matter. Land clearing, grading, earth moving or excavation activities will be suspended when wind speeds exceed a sustained velocity of 20 miles per hour. Disturbed areas will be restored to original contours, and revegetated with a BLM preferred seed mixture. Following seeding, woody debris cleared from the ROW will be pulled back over the pipeline to increase effective ground cover and help retain soil moisture.
2. Construction equipment will be maintained in good operating condition to ensure that engines are running efficiently. Vehicles and construction equipment with emission controls will also be maintained to ensure effective pollutant emission reductions.
3. Motorized travel within the ACECs will be confined to designated roads or travel ways, and will be limited to existing roads and trails in suitable habitat for listed species outside ACECs and within the project area.
4. A No Surface Occupancy stipulation will be applied to ACECs and known and potential habitat, as identified in the White River ROD/RMP.
5. Any future project-related proposals within the ACECs or suitable habitat will be analyzed on a site-specific basis through the NEPA process.
6. If new populations of any listed, proposed or candidate plants are found, or unknown indirect or cumulative impacts occur that could change the important values of these ACECs or adversely impact the plants, then further NEPA analysis or monitoring may be required to analyze and mitigate the effect.
7. Where not already completed, cultural resource surveys will be performed prior to commencement of surface-disturbing activities. If, during layout and design, ExxonMobil should opt to relocate proposed activities away from cultural resources identified during the initial survey in order to avoid impacts, recordation and evaluation will still be completed. Should historic or archaeological materials be discovered after the initial cultural resource survey, during project or construction activities, ExxonMobil will immediately stop activities in the immediate area that might further disturb such materials, and contact the BLM's Authorized Officer (AO). Within five working days the AO will inform ExxonMobil as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures ExxonMobil will likely have to undertake before the site could be used (assuming *in situ* preservation is not necessary); and

- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer (SHPO), that the findings of the AO are correct and that mitigation is appropriate.

Pursuant to 43 CFR 10.4(g), ExxonMobil will notify the AO by telephone, followed by 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), ExxonMobil will stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed, in writing, by the AO.

8. In accordance with Onshore Order #1, III.E and ARPA 1979 as amended (AL, 96-95), ExxonMobil will be responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts.
9. The best way to determine if the *eligible* and *needs data* sites in the buffer area are being adversely affected by alternatives will be through periodic monitoring. Monitoring will assess the condition of the resources prior to construction and will continue periodically for the life of the project to determine if the undertaking may have resulted in adverse effects. This will entail pre-construction set-up of control points to facilitate objective and consistent site assessments. Site conditions will be documented photographically and metrically prior to and immediately after construction. Subsequently, the sites will be monitored once a year to assess them for cumulative effects. If adverse effects are discovered at any stage during monitoring, then ExxonMobil will immediately stop activities in the immediate area that might cause further damage, and contact the AO. Within five working days the AO will inform ExxonMobil as to:
 - the mitigation measures ExxonMobil will likely have to undertake before work could resume in the vicinity; and
 - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the SHPO, that the findings of the AO are correct and that mitigation is appropriate.

The AO will provide technical and procedural guidelines for mitigation and continuation of operations. ExxonMobil will be responsible for mitigation cost.

10. Develop nest avoidance, timing restrictions, and/or additional mitigation measures for nests located on or adjacent to Project rights-of-way.
11. Important nesting habitat during the breeding season (e.g., May 15th–July 15th) will be avoided.
12. Consult with BLM biologist to prioritize pad development based on suitability of habitat; (e.g., construct pads that are in less suitable habitat—along existing roadways or within degraded habitats—during the breeding season, and construct pads located in more suitable habitat prior to or after the critical breeding season). Consultation with the USFWS will occur if any Threatened or Endangered species nests were discovered on or adjacent to project development areas.
13. Provide all drivers with training with regard to the types of wildlife species in the area that are susceptible to vehicular collisions, in order to reduce the risk to bald eagles feeding on road-killed carrion. The circumstances under which such collisions are likely to occur, and the measures that could be employed to minimize them, should be discussed. Reduced

speed limits will reduce the potential for vehicle-wildlife collisions. Vehicle collisions with bald eagles or any project-related bald eagle mortalities (e.g., powerline strikes, electrocution) will be reported to the WRFO, the local Colorado Division of Wildlife District Wildlife Manager, and the USFWS Grand Junction office.

14. To minimize potential impacts to the northern leopard frog and great basin spadefoot habitat, implement all appropriate sedimentation, erosion control, and water control measures included in this document to avoid changes in water quality or quantity in the streams and wetlands within the Project Area.
15. Mature stands of pinyon/juniper woodlands and aspen will be avoided to minimize impacts on northern goshawk nesting habitat and habitat for sensitive bat species. Pad development should be prioritized based on availability and suitability of habitat, including construction of pads in less suitable habitat (e.g., along existing roadways or within degraded habitats) during the breeding season (February 1 through August 15 or until the young have fledged), and location of pads in more suitable habitat (e.g., pinyon/juniper woodlands, spruce-fir and aspen) prior to or after the critical breeding season.
16. Design the layout of future developments (e.g., well pads and pipelines) to reduce the amount of fragmentation of suitable northern goshawk habitat (e.g., mature pinyon/juniper woodlands, spruce-fir and aspen).
17. Conduct pre-construction surveys each spring prior to construction to identify active goshawk nests near or adjacent to project developments. BLM-approved biologists will be required to meet with BLM biologists prior to initiating surveys, and will conduct the surveys using BLM survey protocols. Construction activities will not occur within 0.5 miles of active goshawk nests between February 1 and August 15, or until fledging and dispersal of the young. There will be no surface occupancy within ¼ mile of identified nest locations (White River RMP/ROD WR-2). In the event NSO stipulations are not appropriate, avoid adverse modification of woodland canopies within 1/8 mile of functional nest sites.
18. ExxonMobil will consider assisting BLM with sage-grouse presence surveys and habitat assessment in the sagebrush community adjacent to and surrounding the proposed locations of the CTF.
19. Sage-grouse presence surveys and habitat assessment will be completed each spring prior to construction in areas of known sage-grouse activity or suitable habitat. BLM-approved biologists will be required to meet with BLM biologists prior to initiating surveys, and will conduct the surveys using BLM survey protocols.
20. Timing restrictions (seasonal and daily) will be imposed in areas of known sage-grouse activity or suitable habitat. Surface-disturbing activities will not be allowed between March 1 and July 15 in sage-grouse nesting and brood-rearing areas. Daily timing restrictions will include no activity before 9:00 am or after 4:00 pm in these areas. Additional timing restrictions could be imposed based on results of pre-construction surveys.
21. Broadcast spraying of herbicides for noxious weed control will be restricted in sage-grouse habitat unless approved by the BLM AO or field representative. All weed control programs in sage-grouse habitat will use integrated weed management techniques to reduce

the area of treatment and minimize adverse side effects. Disturbed areas will be seeded with a mix designed to reestablish sagebrush and forb species.

22. Sagebrush seed will be collected from local populations of appropriate species. Distribution will be dependent upon range site (i.e., *Artemisia tridentata* spp. *Vaseyana* and spp. *wyomingensis*). A mosaic of sagebrush seeded and unseeded areas is recommended. Reclamation on these sites should use seed mixes and seeding methods that include and promote successful establishment of a full complement of grasses and favored native forbs. The following forbs will be included in reclamation seed mixes as appropriate throughout sage-grouse range on lands administered by the BLM WRFO and it is recommended that these components be applied to fee-lands under ExxonMobil's control or lease: 1) scarlet globemallow, 2) Utah sweetvetch, 3) arrowleaf balsamroot, 4) Lewis flax, and 5) Rocky Mountain penstemon. (See sage-grouse seed mixes in **Vegetation**.)
23. Additional vegetation treatment to enhance sage-grouse habitat will be negotiated between the BLM, CDOW, and ExxonMobil on a voluntary basis.
24. Long-term modification of suitable sage-grouse habitat will be minimized through the use of interim reclamation as directed by BLM.
25. Measures determined by the USFWS will be implemented to mitigate proposed water depletions in the Colorado River System and impacts to Colorado River endangered fishes.
26. It will be the responsibility of the operator to effectively preclude migratory bird access to, or contact with, reserve pit contents that possess detrimental properties (i.e., through ingestion or exposure) or have potential to compromise the water-repellent properties of birds' plumage. Exclusion methods may include netting, the use of "bird-balls," or other alternative methods that effectively eliminate migratory bird contact with pit contents and meet BLM's approval. The operator will notify the BLM of the method that will be used to eliminate migratory bird use two weeks prior to initiation of drilling activities. The BLM-approved method will be applied whenever such pits contain fluids other than fresh water. All lethal and non-lethal events that involve migratory birds will be reported to a White River Field Office Petroleum Engineer Technician immediately. The operator will ensure that deterrents remain effective for the life of the project. In the event of incomplete compliance, the proponent will be required to apply more effective deterrents to prevent access.
27. Fence riparian areas on BLM-administered lands along Piceance and Black Sulphur Creeks. Fence will be installed around the incised banks and channel with a sufficient gap to allow passage of wildlife or livestock up or down the channel.
28. Coordinate the design and installation of culverts in channels that involve fisheries (e.g., Black Sulphur Creek) will be coordinated with Colorado Division of Wildlife fisheries staff. Culverts will be installed in a manner that will not impede fish passage or proper functioning condition of channel and floodplain processes.
29. After surface disturbance resulting from authorized activities within the project area, ExxonMobil (or its designated representative) will use native species, preferably collected from local genetic stock that will not compete with the rare species in the area, for reclamation and revegetation. A site-specific plan for revegetation projects near listed plant species will be developed in consultation with the Fish and Wildlife Service.

30. Transplantation of potentially affected plants shall not be used as a rationale to defend a “not likely to adversely effect” or a “no effect” determination for endangered, threatened, candidate, or proposed plant species.
31. During construction of authorized projects, topsoil shall be set aside and replaced when earthwork is completed, as recommended by the reclamation standards of the BLM Gold Book.
32. Appropriate measures will be taken to protect pollinator species in known listed, proposed, or candidate plant species habitats, especially the application of herbicides and use of prescribed fire during the plant's bloom period. If the pollinator complex is known and identified as a Primary Constituent Element (PCE) of the proposed Critical Habitat Rule, then certain actions determined by the Fish and Wildlife Service must be taken to actively protect the pollinator complex.
33. Fire management practices will include current maps of plant locations and appropriate buffer zones should be established before the fire is initiated. Staging areas should avoid plant locations. Fire-retardant chemicals are not recommended for direct application on plants.
34. Herbicide applications will be kept at least 200 meters from known listed, proposed, or candidate plant species populations. A lesser distance may be considered, after consultation with the Fish and Wildlife Service, in instances where weed populations threaten habitat integrity or plant populations.
35. All suitable plant habitat from known listed, proposed, candidate or sensitive plant species will be avoided wherever possible. Where listed plants are found, an avoidance buffer of 200 meters from the edge of the occupied area will be applied where geography allows. Ground disturbance that is allowed within suitable but unoccupied habitat will not result in fragmentation of continuous habitat.
36. Where development is allowed within 200 meters of known listed, proposed, or candidate plant populations, unauthorized disturbance of plant habitat will be prevented by fencing the perimeter of the disturbed area, or such other method as agreed to by the Fish and Wildlife Service. In such instances, a monitoring plan approved by the Service will be implemented for the duration of the project to assess impacts to the plant population.
37. ExxonMobil shall provide maps to the BLM and the Service as hard-copy and GIS files, and shall update these maps as new sites are proposed. Maps will include existing and proposed roads, pipelines, well pads, ponds, processing, and other facilities such as large parking lots. The 3,455 acres of soil series 91, identified in the BA as suitable habitat, will be displayed on the map, as will specific polygons where rare plant surveys have been conducted, along with the results of those surveys (positive or negative). The locations of any monitoring plots established to measure the status of rare plants and habitat in the vicinity of project activities will also be displayed.
38. ExxonMobil will collect and properly dispose of any solid wastes generated. Use, storage, transport, and disposal of hazardous materials will be handled in accordance with applicable state and federal laws.
39. The operator will obtain the necessary federal and state permits, and will comply with the Corps of Engineers (COE) Nationwide Permit 12 conditions, CDPHE Water Quality

Control Division (WQCD) Minimal Industry Discharge Permit conditions and Construction Dewatering/Hydrostatic Testing Permit conditions.

40. Prior to any discharge, hydrostatic testing water will be tested and processed, if necessary, to ensure that the water meets local, State or Federal water quality standards. Prior to discharge of hydrostatic testing water from the pipeline, the holder will design and install a suitable energy dissipator at the outlets, and design and install suitable channel protection structures necessary to ensure that there will be no erosion or scouring of natural channels within the affected watershed as a result of such discharge. The holder will be held responsible for any erosion or scouring resulting from such discharge. Sandbags, rock, or other materials or objects installed will be removed from the site upon completion of hydrostatic testing.
41. Test water quality during withdrawal and discharge in accordance with permit stipulations and conditions.
 - Utilize screens on the intake hoses at the surface water sources to prevent entrapment of fish or other aquatic species.
 - Install energy-dissipating devices and/or filter bags to prevent scour, erosion, suspension of sediment, and damage to vegetation. Monitor discharge rates to ensure effectiveness of the energy-dissipating devices.
42. The operator will consult with the State of Colorado Water Quality Control Division (contact Matt Czahor at: 303-692-3575 or matthew.czahor@state.co.us) regarding Stormwater Discharge Permits prior to commencing construction activities. All construction activities that disturb one acre or greater require a Stormwater Discharge Permit. Written documentation to the BLM Authorized Officer is required prior to the start of construction to indicate that appropriate permits have been obtained. Written documentation may be a copy of the Stormwater Discharge Permit or an official verification letter from the State Water Quality Control Division to the operator that includes the Permit Certification Number. ExxonMobil has filed a General Permit Application with the Colorado Department of Public Health and Environment (CDPHE) to permit stormwater discharges associated with construction of well pads, access roads, pipelines, storage areas and related disturbances. This permit was approved, assigned certification number COR-039398, and is on file at the BLM-WRFO. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or Nathan_Dieterich@blm.gov. Appropriate documents may be faxed (970-878-3805), or mailed to Nate Dieterich at the White River Field Office.
43. The operator will consult with the U.S. Army Corps of Engineers (contact Sue Nall at: 970-243-1199 x16 or Susan.Nall@usace.army.mil) to obtain approval prior to discharging fill material into waters of the U.S. in accordance with Section 404 of the Clean Water Act. Waters of the U.S. are defined in 33 CFR Section 328.3. *When applicable*, written documentation to the BLM Authorized Officer is required prior to the start of construction to indicate that the U.S. Army Corps of Engineers has been notified or that 404 Permits have been obtained or are not required by the permitting agency. Written documentation may be a copy of the Pre-Construction Notification (PCN) Form or an official verification letter from the U.S. Army Corps of Engineers to the operator stating that a permit has been issued or is not required for the activities in question. For further information contact Nate Dieterich, WRFO Hydrologist at 970-878-3831 or Nathan_Dieterich@blm.gov.

Appropriate documents may be faxed (970-878-3805), or mailed to Nate Dieterich at the White River Field Office.

44. To mitigate additional soil erosion at the well pad and potential increased sediment and salt loading to nearby surface waters, all disturbed areas affected by drilling or subsequent operations, except areas reasonably needed for production operations, shall be reclaimed as early and as nearly as practicable to their original condition and shall be maintained to control dust and minimize erosion (COGCC 2006).
45. To allow optimal opportunity for interim reclamation of well pads, all tanks and production facilities will be situated on the access road side of the well pad (unless otherwise approved by the WRFO-BLM Field Manager). Reclamation efforts on all pipelines will be final. Interim reclamation of well pads and final reclamation of pipeline rights-of-way will commence as follows: Debris and waste materials other than *de minimus* amounts, including, but not limited to, concrete, sack bentonite and other drilling mud additives, sand, plastic, pipe and cable, as well as equipment associated with the drilling, re-entry or completion operations shall be removed (COGCC, 2006).
46. The operator will be responsible for achieving a reclamation success rate for interim reclamation and final abandonment of sufficient vegetative ground cover from reclaimed plant species within three growing seasons after the application of seed. Additional reclamation efforts will be undertaken at the operator's expense if after the first growing season there are no positive indicators of successful establishment of seeded species (e.g. germination); after the second year seeded species are not yet established (e.g. producing seed); and after the third growing season seeded vegetative communities lack persistence (e.g. reproductively capable of enduring drought conditions and sustaining the seeded community). Following the third growing season, ground cover of reclaimed seed species shall be at a Desired Plant Community (DPC) in relation to the seed mix as deemed appropriate by the BLM. Reclamation achievement will be evaluated using the Public Land Health Standards that include indicators of rangeland health. Rehabilitation efforts must be repeated if it is concluded that the success rate is below an acceptable level as determined by the BLM.
47. Surface-disturbing activities and vehicle access occurring on or across soils saturated to a depth of three inches or more (rutting depth is greater than or equal to three inches) can alter natural drainage patterns as well as reduce soil infiltration and permeability rates all of which may lead to increased overland flow, hill slope soil erosion, and increased salt loading to the Colorado River System. Thus, all surface-disturbing activities shall cease when soils or road surfaces become saturated to a depth of three inches or more unless otherwise approved by the Authorized Officer.
48. Upon final abandonment of well pads, treatment facilities, new access roads, and completion of pipelines, 100 percent of all disturbed surfaces will be restored to pre-construction contours, and revegetated with a BLM preferred seed mixture. Natural drainage patterns will be restored and stabilized with a combination of vegetative (seeding) and non-vegetative (straw bales, woody debris, straw waddles, biodegradable fabrics, etc.) techniques. All available woody debris will be pulled back over recontoured areas (woody debris will not account for more than 20 percent of total surface cover) to help stabilize soils, trap moisture, and provide cover for vegetation. Monitoring and additional

reclamation efforts will persist until reclamation is proven successful (as determined by the BLM).

49. To further mitigate surface erosion due to removal of ground cover at the well pad, stockpiled soils will be clearly identified and covered with biodegradable fabrics and silt fences will be used on downgradient sides. In constructing the access road, proper drainage structures (e.g., drain dips, culverts) will be installed to reduce further surface erosion. To mitigate contamination of local groundwater, harmful substances (e.g., diesel fuel) will not be allowed to contact soils. The use of impermeable matting under equipment will be considered to intercept such contaminants prior to contacting soils. Further, all pits containing fluids will be lined and all wastes associated with construction and drilling will be treated and disposed of in accordance with applicable state and/or BLM requirements. Finally, fresh-water aquifers beneficial for human consumption and livestock encountered during the drilling process will be properly sealed in accordance with COGCC requirements to reduce potential for contamination.
50. A Reclamation Status Report will be submitted to the WRFO biannually for all actions that require disturbance of surface soils on BLM-administered lands as a result of Alternative B. 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 15 April and 15 August of each calendar year, and will include the well number, legal description, project description (e.g., well pad or pipeline), reclamation status (e.g., interim or final), whether the well pad or pipeline has been re-vegetated and/or recontoured, date seeded, photos of the reclaimed site, estimate of acres seeded and seeding method (e.g., disk-plowed, drilled, or both). Internal and external review of this plan 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 plan. The Reclamation Status Report will be submitted electronically via email as a Microsoft Excel table to Natural Resource Specialist, Brett Smithers (brett_smithers@blm.gov).
51. Stockpiled topsoil and spoil piles will be separated to prevent mixing during reclamation efforts. Stockpiled topsoil will be seeded with a BLM-approved seed mixture. Stockpiled topsoil that will potentially remain in place for extended periods of time (e.g. multi-well locations, and CTF stockpiles) will be covered with a wildlife-friendly biodegradable fabric such as (but not limited to) jute netting or Curlex and seeded with the appropriate seed mixture. Stockpiled topsoil segregated from spoil piles will be replaced during reclamation in its respective original position (last-out, first-in) to minimize mixing of soil horizons.
52. Stockpiled soils (spoil and topsoil) will be pulled back over all disturbed surfaces affected by pipeline/road construction, drilling, or subsequent operations, except areas reasonably needed for production operations. Areas on *well pads* not needed for production operations shall be partially reshaped as early and as nearly as practicable to near pre-construction contours. Pipelines will be recontoured to pre-construction contours as soon as construction activities cease.
53. The operator will ensure stockpiled topsoil is evenly distributed over the top of spoil used in recontouring/partial-reshaping efforts. Recontoured/partially reshaped areas will be seeded with a BLM approved seed mixture, and all slopes exceeding five percent will be

covered with wildlife-friendly biodegradable fabrics (such as, but not limited to, jute blankets, Curlex, etc.) to provide additional protection to topsoil, retain soil moisture, and help promote desired vegetative growth.

54. Following seeding and placement of biodegradable fabrics, woody debris cleared during initial construction will be pulled back over the recontoured/partially reshaped areas to act as flow deflectors and sediment traps. Available woody debris will be evenly distributed over the entire portion of the reclaimed area and will not account for more than 20 percent of total ground cover.
55. The operator will be responsible for excluding livestock grazing from all reclaimed portions of *well pads*. To eliminate livestock utilization of reclaimed areas prior to successful reclamation, a four-strand BLM Type-D barbed wire fence with braced wooden corners or net wire fence brought to the ground surface built to BLM specifications will be constructed around all reclaimed portions of the well pad including cut-and-fill slopes immediately after interim reclamation is concluded (within two weeks) unless otherwise instructed by the BLM. A BLM-specified cattleguard will be placed at the time of fence construction where the well access road bisects the fenceline that surrounds the well pad's disturbance imprint. Once reclaimed plant species are fully established on disturbed sites as determined by the BLM (e.g. Desired Plant Community (DPC), Public Land Health Standards), the fence and cattle guard will be completely removed by the applicant after a minimum of two growing seasons. This will allow for reclaimed plant species to establish without grazing pressure from livestock.
56. Minimize duration of trench dewatering discharges by scheduling dewatering operations immediately prior to lowering in, tie-ins, or backfilling. Minimizing trench disturbance (i.e., additional digging) to the extent practicable until the majority of the water is pumped out.
57. Prohibit storage of hazardous materials, chemicals, fuels, lubricating oils, and concrete coating and refueling activities within 200 feet of any surface water or wetland.
58. As described in Well Drilling and Completion and Water Source and Consumption sections, the use of either produced water or reuse of drilling fluids for subsequent well drilling will not occur before surface casing has been cemented in place and fresh-water zones are isolated and protected.
59. The United States of America considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration will be reported to the Field Manager immediately, including approximate quantities and a sample in a sealed quart container. The United States shall have the first opportunity to file state water rights for the intercepted groundwater. ExxonMobil may file for water rights only with a written waiver from the Field Manager.
60. Due to extensive lost circulation problems that are being encountered in the Piceance Basin during drilling operations from surface to total depth, and given that all usable water zones, potential productive zones, and lost circulation zones shall be protected and/or isolated per Onshore Order #2, the White River Field Office requires sufficient volumes of cement be pumped to meet these requirements. Cement tops behind intermediate and production

casing will be verified by an acceptable log or alternative means (agreed to by the BLM) to ensure compliance with this order. Verifications of cement tops will be consistent with approved APD Permits.

61. All drill cuttings will be contained in a lined pit on the pad of the well being drilled, or hauled to an approved disposal site.
62. Project vehicles will not enter bodies of water (e.g., streams) on federal lands, except at existing crossings. Frequent fording should not occur in areas where it will create extensive turbidity. Any temporary crossing structures will be designed to handle anticipated high flows during the construction period. All temporary structures will be completely removed from the stream channel at project conclusion and the area restored to a natural appearance.
63. The operator will take care to cause only the minimum necessary disturbance and to protect streambank vegetation except where its removal is necessary for completion of the work.
64. The application of gypsum to soil surfaces as a soil remediation technique will not be permitted on BLM surfaces.
65. All surface disturbing activities encountering “fragile soils” (slopes greater than 35 percent) will be allowed only after an engineered construction/reclamation plan is submitted by the operator and approved by the Field Manager. The plan must address how soil productivity will be restored and how surface runoff will be treated to avoid accelerated erosion such as riling, gullyng, piping, and mass wasting.
66. Entire disturbed sites will be reclaimed as directed by the BLM as soon as feasible after construction has ceased. Interim reclamation will occur after drilling was completed. If drilling of some wells were to be delayed longer than six months, interim seeding and other erosion protection measures will be required.
67. ExxonMobil will comply with “Gold Book” surface operating standards for constructing well pads, pipelines, facilities, and access roads. All disturbed surfaces will be revegetated following construction using a seed mix as specified in the APD or right-of-way grant. Flow deflectors and sediment traps for woody debris will also be utilized to mitigate potential erosion. Stockpiled soils will be covered and silt fences will be situated downgradient. To mitigate contamination of soils and local ground water, harmful substances (e.g. diesel) will not be allowed to contact soils. The use of impermeable matting under equipment will be considered to intercept such contaminants and prevent contact with soil. Interim reclamation will be implemented on the portion of each well pad—about three acres—that will not be used for production facilities. Complete reclamation will follow abandonment of the well pad. The access road and well pad will be recontoured and 100 percent of disturbed surfaces will be revegetated. Reclamation will be implemented according to the Reclamation Plan in The ExxonMobil Plan of Development.
68. Provide all drivers with a training session describing the types of wildlife species in the area that are susceptible to vehicular collisions to reduce the potential for vehicle/big-game or vehicle/raptor collisions. The circumstances under which such collisions are likely to occur, and the measures that could be employed to minimize them should be discussed. Reduced speed limits will be implemented to reduce potential for vehicle/wildlife collisions.

69. Gate roads as specified by BLM to discourage public use and reduce disturbance to big-game animals.
70. Avoid impacts to mature pinyon/juniper woodlands to preserve raptor-nesting habitat. Conduct nesting raptor surveys prior to construction. BLM-approved biologists will be required to meet with BLM biologists prior to initiating surveys and will conduct the surveys using BLM survey protocols.
71. Conduct nesting raptor surveys in suitable nesting habitat (mature pinyon/juniper woodland, spruce-fir and aspen). In addition, conduct surveys in suitable nesting habitats within one mile of the proposed project for cliff-nesting species. In areas where proposed disturbance parallels existing disturbance, conduct surveys 300 feet from the edge of rights-of-way unless specifically directed by BLM. In areas where the proposed disturbance is not adjacent to existing disturbance, conduct surveys within 0.25 miles from the edge of the disturbance. Surveys could be conducted throughout the year; however, any potential nest sites located must be resurveyed during the breeding season to determine activity. Construction activities will be prohibited within 0.25 miles of active nests, depending on species, between February 1 and August 15, or until fledging and dispersal of the young.
72. There will be no surface occupancy within 1/8 mile of identified nests (White River ROD/RMP – WR-2). In the event NSO stipulations are not appropriate, avoid adverse modification of woodland canopies within 0.125–0.25 miles of functional nest sites (White River ROD/RMP –WR-3).
73. Avoid construction activities in mule deer severe winter range between December 1 and April 30. The AO may approve development activities during this time in order to take advantage of long-term habitat benefits associated with, for example, multi-well pads or winter reclamation practices.
74. ExxonMobil has agreed to voluntarily commit to offsite mitigation to rectify the loss of approximately 608 acres of mule deer severe winter range due to Alternative B. The basis of the off-site habitat improvement will be that for every acre of mule deer severe winter range physically disturbed on public lands within the Project Area, a comparable number of acres of offsite habitat improvement will be implemented to compensate for direct impacts. Offsite habitat enhancements could take a variety of forms and need not be implemented on a yearly basis. Extent and location of enhancement projects will be determined through consultation with the BLM and CDOW. It is the intent of CDOW and BLM to locate this mitigation work as close to the development site as possible to provide the most benefit for wintering mule deer displaced by the development. The cost of these improvements will be capped at a maximum value of \$300.00 per acre, with an average annual contribution of \$6000.00 per year over the life of the project.
75. Redistribute large, woody material salvaged during clearing operations on BLM White River Field Office-administered lands as directed by the AO. Disperse materials over the reclaimed portions of the rights-of-way and well sites from which the trees and brush were originally removed to meet fire management objectives and to provide wildlife habitat, seedling protection, and a deterrent to vehicular traffic. Woody materials dispersed across reclaimed areas should be well scattered to avoid creating large piles of fuel, and should not exceed 3–5 tons/acre.

76. The following required BLM mitigation measures will minimize accidental fires and cheatgrass infestations:
 - Equip construction equipment operating with internal combustion engines with approved spark arresters.
 - Carry fire-fighting equipment (long-handled round-point shovel and dry-chemical fire extinguisher) on motor vehicles and equipment.
 - Take immediate action to suppress accidental fires.
 - Control noxious weeds as discussed in the **Invasive, Non-Native Species** section.
 - Seed disturbed areas as discussed in the **Vegetation** section.
77. Create defensible space around the CTF and any other aboveground structures as outlined on the Firewise website (www.firewise.org).
78. Construct new power lines with defensible space. Defensible space should be achieved in an ecologically and aesthetically pleasing manner through thinning and mulching of trees and brush rather than removing all vegetation.
79. Commit to cost-recoverable measures or offsite mitigation to rectify the loss of treatment acreage in fuel-reduction project areas. Cost-recovery measures or offsite fuel reduction and restoration projects could take a variety of forms, which will be determined through consultation with the BLM. The costs will be calculated on an acre-for-acre basis at current 2006 costs for treatment to be determined by BLM personnel. It is the intent of the BLM to design mitigation work as close to the development site as possible to achieve fire management and land management objectives in the area.
80. 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.
81. All trees removed in the process of construction must be purchased from the BLM.
82. The BLM will impose an instream flow requirement of 2 cfs on Black Sulphur Creek below the diversion for the freshwater pond. The purpose of this requirement is insuring that beneficial uses for Black Sulphur Creek, as designated by the Colorado Department of Public Health and Environment, are maintained at all times. The designated beneficial uses include Aquatic Life Cold 1, Recreation 2, and Agriculture. It is anticipated that the instream flow requirement will be implemented only in rare occasions, because as specified above, ExxonMobil intends to utilize wells and its existing surface water rights to meet to meet water demands before implementing any new surface water diversions from Black Sulphur Creek.
83. ExxonMobil will be required to adhere to terms and conditions negotiated by the BLM in water right filings associated with case number W-814.
84. All pipeline crossings of perennial water sources (e.g. Piceance Creek, Black Sulphur Creek, and Hunter Creek) will be bored to protect stream channel/bank morphologic conditions and reduce sedimentation/salt loading to the Colorado River System.
85. ExxonMobil will be responsible for complying with all local, state, and federal water quality regulations as well as provide documentation to the BLM that they have done so. This documentation will include an approved Stormwater Management Plan (SWMP).

86. To mitigate surface erosion due to removal of ground cover at the well pad, stockpiled soils will be covered and silt fences will be used on downgradient sides.
87. To mitigate contamination of local groundwater, harmful substances (e.g., diesel) will not be allowed to contact soils. In addition, the use of impermeable matting under equipment will be considered to intercept such contaminants prior to contacting soils.
88. All pits containing fluids will be lined and all wastes associated with construction and drilling will be treated and disposed of in accordance with applicable state and or BLM requirements.
89. Fresh-water aquifers beneficial for human consumption and livestock encountered during the drilling process will be properly sealed in accordance with COGCC requirements to reduce potential for contamination.
90. Limit noise at the fence line of the CTF so as not to exceed 65 decibels.
91. Areas underlain by bedrock exposures of the Uinta and Green River formations will be surveyed by a BLM permitted paleontologist prior to construction disturbance.
92. A paleontological monitor will be present prior to and during any excavation into the underlying fossil-rock formations. ExxonMobil will be responsible for informing all persons associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. Should fossil materials be discovered during any project or construction activities, ExxonMobil will immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform ExxonMobil as to whether the materials appear to be of noteworthy scientific interest and the mitigation measures ExxonMobil will likely have to undertake before the site could be used (assuming *in situ* preservation is not feasible). Should ExxonMobil opt, at any time, to relocate proposed activities away from resources identified during the initial paleontology survey to avoid impacts to the resource, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials could be required. Otherwise, ExxonMobil will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for mitigation and continuation of operations. ExxonMobil will be responsible for mitigation cost.
93. If fossil remains of significance are identified during either survey or excavation, then additional mitigation may be proposed as necessary and appropriate. Additional mitigation could include collection, identification, and curation of the fossil remains and continued monitoring of ongoing surface disturbance in the area of discovery.
94. If necessary, relocate the Piceance Mtn. (06023) and Fawn Creek (06024) allotment boundary fence around the west side of the proposed plant location in Section 28 T2S R97W. Relocation will be completed prior to plant construction per BLM specifications, including post spacing, wire spacing, and proper location and construction of H braces. A copy of the applicable BLM fence specifications will be included as part of the conditions of approval.
95. Brace any and all fences intersected by a pipeline to BLM specifications prior to cutting. A temporary wire gate will be constructed, and this work will take place prior to pipeline

construction. A copy of the applicable BLM fence specifications will be included as part of the conditions of approval.

96. Coordinate planned activities between ExxonMobil and affected permittees, which is encouraged especially during calving operations or animal herding operations
97. Ensure that heavy equipment does not exceed the GVW limits of cattle guards. If necessary, a temporary wire gate will be constructed to bypass the guard in accordance with BLM specifications. The new gate will be constructed and braced to BLM specifications prior to cutting.
98. Leave gates as they are found; if open, leave open; if closed, make sure the gate is closed. This will prevent the labor-intensive effort of rounding up livestock that have trespassed to adjoining allotments. If in doubt, the gate should be closed.
99. Encourage employees of ExxonMobil and its subcontractors to observe reasonable speed limits within the Project Area to decrease the potential of vehicle/animal collisions, especially during night hours and the calving season.
100. Install suitable fencing as required to avoid overuse and to ensure successful reclamation of the site. Reclamation of disturbed sites with grasses and forbs could cause a localized increase in the availability of livestock forage and depending upon the intensity of use (grazing by wildlife, wild horses, and livestock), could interfere with revegetation success of reclaimed areas.
101. Upon completion, replace in kind all existing fences removed due to construction activities.
102. The Colorado One-Call Notification process will be implemented before any surface disturbance could be undertaken.
103. The holder will submit a plan or plans of development that describe in detail the construction, operation, maintenance, and termination of the right-of-way and its associated improvements and/or facilities. The degree and scope of these plans will vary depending upon (1 the complexity of the right-of-way or its associated improvements and/or facilities, (2 the anticipated conflicts that require mitigation, and (3 additional technical information required by the AO. The plans will be reviewed, and if appropriate, modified and approved by the AO. An approved plan of development will be made a part of the right-of-way grant.
104. The holder will contact the AO at least two days prior to the anticipated start of construction and/or any surface-disturbing activities. The AO could require and schedule a preconstruction conference with the holder prior to the holder's commencing construction and/or surface-disturbing activities on the right-of-way. The holder and/or his representative will attend this conference. The holder's contractor, or agents involved with construction and/or any surface-disturbing activities associated with the right-of-way, will also attend this conference to review the stipulations of the grant including the plan(s) of development.
105. The holder will be responsible for weed control on disturbed areas within the limits of the right-of-way. The holder will be responsible for consultation with the AO and/or local authorities for acceptable weed control methods (within limits imposed in the grant stipulations).

106. The holder will protect all survey monuments found within the right-of-way. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any of the above, the holder will immediately report the incident, in writing, to the AO and the respective installing authority if known. Where General Land Office or BLM right-of-way monuments or references are obliterated during operations, the holder will secure the services of a registered land surveyor or a Bureau cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the Manual of Surveying Instructions for the Survey of the Public Lands in the United States, latest edition. The holder will record such survey in the appropriate county and send a copy to the AO. If the Bureau cadastral surveyors or other Federal surveyors were used to restore the disturbed survey monument, the holder will be responsible for the survey cost.
107. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of three-inches deep, the soil will be deemed too wet to adequately support construction equipment.
108. The holder will conduct all activities associated with the construction, operation, and termination of the right-of-way within the authorized limits of the right-of-way.
109. Construction holes left open over night will be covered. Covers will be secured in place and will be strong enough to prevent livestock or wildlife from falling through and into a hole.
110. All design, material, and construction, operation, maintenance, and termination practices will be in accordance with safe and proven engineering practices.
111. The holder will provide for the safety of the public entering the right-of-way. This includes, but is not limited to, barricades for open trenches, flagmen/women with communication systems for single-lane roads without intervisible turnouts, and attended gates for blasting operations.
112. The holder will permit free and unrestricted public access to and upon the right-of-way for all lawful purposes except for those specific areas designated as restricted by the AO to protect the public, wildlife, livestock, or facilities constructed within the right-of-way.
113. Construction-related traffic will be restricted to routes approved by the AO. New access roads or cross-country vehicle travel will not be permitted unless prior written approval is given by the AO. Authorized roads used by the holder will be rehabilitated or maintained when construction activities are complete as approved by the AO.
114. Existing roads and trails on public lands that are blocked as the result of the construction project will be rerouted or rebuilt as directed by the AO.
115. The holder will inform the AO within 48 hours of any accidents on federal lands that require reporting to the Department of Transportation as required by 49 CFR Part 195.
116. The holder is prohibited from discharging oil or other pollutants into or upon the navigable waters of the United States, adjoining shorelines, or the waters of the contiguous zone in

violation of Section 311 of the Clean Water Act as amended, 33 U.S.C. 1321, and the regulations issued hereunder, or applicable laws of the State(s) of Colorado and regulations issued there under. Holder will give immediate notice of any such discharge to the AO and such other Federal and State officials as are required by law to be given such notice.

117. Emphasis should be given to color selection because of the high degree of control over color available to the Operator and the likelihood that color selection will succeed in lowering the strength of visual contrasts introduced by Alternative B. All color selection for life-of-project facilities should be site specific. Color selection also should be considered for short-term features such as erosion control materials (blankets, mats, fiber-matting, and hydro-matting) and revegetation seed mixes, which can be color-amended.
118. Consideration for lowering visual contrast from construction and operations also should be given to final linear alignment and earthwork. Some operator control may be exercised over these elements. Options for the manipulation of the form and linearity of most structural features may be limited by available technology.
119. Include visual concerns in the design and implementation of interim and final reclamation. For projects associated with Alternative B, vegetative manipulation will be emphasized as part of the design for reclamation and restoration.
120. More detailed guidelines for consideration of visual mitigation through color selection, earthwork, restoration/reclamation, vegetative manipulation, structures, and linear alignment are incorporated by reference to BLM guidance on Visual Resource Management Design Techniques (BLM, no date).
121. All new surface facilities placed by the operator in the Project Area will be painted Shale Green (Munsell Soil Color 5Y 4/2), a BLM Standard Environmental Color. All aboveground facilities will be painted within six months of installation.
122. The operator's pre-existing facilities at Love Ranch, site of the proposed new tank, sales and slug catcher facilities, will be repainted Shale Green to match the new facilities at the time those existing facilities will be repainted under the normal maintenance schedule, or before 10 years elapses.
123. The system of roads, pipelines and electric power lines for transportation and distribution of produced water and power throughout the entire Project Area will be designed for maximum co-location and corridor sharing. However, where the location of an existing corridor can be improved to benefit visual resources, habitat, safety or maintenance, the best corridor location will be chosen and the old corridor will be reclaimed.
124. Wherever visible from RBC Road 5, roads, flowline, and power line corridors will be designed to follow the contour of the landform or mimic lines in the vegetation.
125. Mitigation will be required in addition to the item above for transportation, flowline, and power line corridors that are constructed from the valley floor to the ridge tops along RBC Road 5. These corridors will be mitigated by onsite adjustment of the alignment to avoid tree removal and to use local terrain features to naturally screen the corridor from view from RBC Road 5.

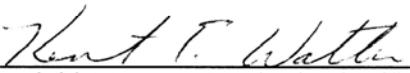
126. For corridors covered under the mitigation item above, disturbance pending interim reclamation will be mitigated by using soil stabilization and revegetation materials that are tinted to Shale Green, the Project Standard Environmental Color.
127. Night lighting design will be incorporated into the construction of all surface facilities wherever visual impact and night light spillover could occur to RBC Road 5. Continuous dusk-to-dawn lighting at facilities will be limited. Should continuous lighting be necessary, the light will be shaded to directly light the facility only. Lights will be at a minimum whenever facilities were inactive.

Appeals Language: This decision is effective upon the date it is signed by the authorized officer. As stated in the regulations at 43 CFR 2881.10 the provisions of 43 CFR 4.21(a) do not apply, and the decision shall remain effective pending appeal unless the Board determines otherwise. Within 30 days of receipt of the decision, an appeal must be filed with the Bureau of Land Management, White River Field Office, 220 East Market Street, Meeker, Colorado 81641. Copies of the notice must also be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 and with the Regional Solicitor, Rocky Mountain Region, 755 Parfet Street, Suite 6201, Lakewood,, Colorado, 80215. The appellant has the burden of showing that the decision appealed from is in error.

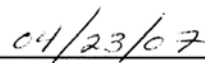
If an appellant wishes to file a petition for stay pursuant to 43 CFR 3150.2(b), the petition for stay should accompany the notice of appeal and shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of irreparable harm to the appellant or resources if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

In accordance with 43 CFR 3165.3 you may request a State Director Review upon approval of Application Permit to Drill (APDs) outlined in this Environmental Assessment. This request must be submitted in writing within 20 business days from date of APD approval. The request should be sent to Colorado State Director, 2850 Youngfield Street, Lakewood, Colorado 80212-7076. The decision of the State Director may then be appealed to the Interior Board of Land Appeals in accordance with 43 CFR 3165.4.



Field Manager (Authorized Officer)



Date

Attachments: Response to Comments, Errata, etc.