APPENDIX 4

BLM's Practices and Restrictions for the Pinedale Anticline Project Area

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These Practices and Restrictions for the Pinedale Anticline Project Area are available for application to APDs and right-of-ways during the site-specific review, where economically and technically feasible. This appendix is not an exhaustive list of all the restrictions BLM may impose on operations to reduce or eliminate impacts. These are subject to modification through adaptive management and are also subject to exception as outlined in the BLM RMP (BLM, 1988b) and Appendix A-6 of the PAPA ROD (BLM, 2000b).

Surveys listed in this Appendix would be used to determine resource absence or presence. The result of these surveys would be used to make decisions on pad placement once a pad has been approved at the Annual Planning Meeting. Ongoing annual monitoring would be used to determine whether additional clearances would be required.

General Requirements

Proposed project development would require the appropriate level of environmental review in accordance with applicable federal, state, and local regulations.

Removal and disturbance of vegetation would be kept to a minimum through construction site management (e.g., using previously disturbed areas and existing easements, limiting equipment/materials storage yard and staging area size, etc.).

Where necessary, areas to be disturbed would require inventories or special studies to determine the extent of site-specific impacts and appropriate mitigation. Operators would be required to complete inventories or short-term special studies under guidelines provided by the BLM or as developed through the AM planning process.

There would be no well location or production facility surface occupancy within 0.25 miles of an occupied dwelling to prevent damage to human health and safety and/or other resources. Any surface use or occupancy within such special areas would be strictly controlled or, if absolutely necessary, prohibited.

No surface disturbance is recommended on slopes in excess of 25 percent unless erosion controls can be ensured and adequate revegetation is expected. Engineering proposals and revegetation and restoration plans would be required in these areas.

Unnecessary topographic alterations would be mitigated by avoiding, where possible, steep slopes, rugged topography, and perennial and ephemeral/intermittent drainages, and by minimizing the area disturbed. Alternative methods of construction in order to minimize environmental impacts may also be used.

Project Siting and Operation

In conformance with Onshore Oil and Gas Order No. 1, Operators would prepare and submit individual comprehensive drill site design plans for BLM approval. These plans would show the drill location layout over the existing topography, dimension of the location, volumes and cross sections of cut and fill, location and dimensions of reserve

pits, existing drainage patterns, and access road egress and ingress. Plans would be submitted and approved prior to initiation of construction.

Prior to the onset of drilling, a "stock tight" fence would be installed on three sides of the reserve pit. This fence would be woven wire at least 28 inches high and within 4 inches of ground surface with two strands of barbed wire above the woven wire with 10-inch spacing. The fence corners would be double H-brace panels constructed with treated wood corner posts or steel pipe posts of at least 4-inch outside diameter (see Gold Book pgs 16-18). The corner brace posts would securely set a minimum of 30 inches in the ground. Metal T-posts are not allowed for corner panel construction, but may be used between corner panels. The fourth side of the reserve pit would be fenced after the drilling rig moves off the location. The fence would be located a maximum of 5 feet from the edge of the reserve pit. The double H-braces would be used on all corners of the pit area. The Operator would implement measures to prevent wildlife and livestock from entering the reserve area during drilling and well completion operations before the fourth side of the fence has been constructed.

Due to the location of the PAPA within the Colorado River Basin, all reserve pits must be lined. Reserve pit liners must have a mullen burst strength that is equal to or exceeds 300 pounds, a puncture strength that is equal to or exceeds 160 pounds, and grab tensile strengths that are equal to or exceed 150 pounds. There would be verified test results conducted according to ASTM test standards. The liner must be totally resistant to deterioration by hydrocarbons.

Liners must be installed over smooth fill subgrade which is free of pockets, loose rocks, or other materials which could damage the liner. Sand, sifted dirt, or bentonite are suggested.

Reserve pit slope would not exceed 1:1.

Procedures for use of oil-based mud should be environmentally acceptable.

All oil-based mud drilling operations would be completed through a closed mud system and all oil-based mud would be contained in the closed system.

The closed drilling system would be equipped with appropriate drip pans, liners and catchments under probable leak sources as needed to prevent the oil-based drilling mud and cuttings from reaching the reserve pit and/or ground surface of the drill pad.

Any cuttings dropped or mud spilled would be immediately cleaned up and placed in the approved containment device. All spills in excess of one barrel outside the containment devices would be reported to the BLM within 8 hours.

All BPO equipment, and all elastomers in the mud system would be suitable for oil based mud.

Well control training of all crews on rigs utilizing oil-based muds would include coverage of the additional hazards associated with oil-based muds.

The Operator would exercise extreme caution to avoid discharging oil-based drilling mud into the reserve pit. Should an event occur where it is necessary for oil-based mud to be

discharged to the reserve pit, the Operator would immediately initiate the following actions:

- The reserve pit would be secured to prevent birds and other wildlife from getting into the oil contaminated cuttings, fluids, and mud.

- The Operator would submit a plan to the BLM-PFO describing how the contaminated pit would be managed (i.e., would the contaminated material/fluids be treated in place, and if so by what method; or would the contaminants be removed to a WDEQ-approved disposal facility).

Submit a Sundry Notice describing how the oil contaminated drill cuttings would be treated to assure the oil stays contained in the cuttings and where the cuttings would be ultimately be stored (i.e., buried in the flare pit, buried in a separate "on-location" pit, or removed to a WDEQ-approved disposal site. Any on location disposal sites for the oil contaminated drill would be lined with a 12 mil or stronger impervious liner compatible with oils. A liner meeting this specification would also be placed under any temporary storage area for the oil contaminated cuttings.

Prior to skidding or moving the drill rig to another well or well pad, the pumps, pump lines and tanks would be cleaned to insure that **NO** oil-based mud is in the system during surface drilling operations of the new well.

Install and maintain siphons, catchments, and absorbent pads to keep hydrocarbons produced by the drill rig from entering the reserve pit. Ensure that hydrocarbons and contaminated pads are disposed of in accordance with WDEQ requirements.

If drilling fluids are transferred from this well to the next well in the drilling plan, then the fluids would be tested at the well logging stage of drilling operations using WDEQ Guideline 8 parameters. This water analysis standard is incorporated in a packet submitted by Western Environmental Services and Testing Inc. as part of their water analysis packages. Any other company doing water testing would also have to test for the elements listed in the WDEQ Guideline 8 parameters.

Operators would construct reserve pits with 2 feet of freeboard in cut areas or in compacted and stabilized fill. Reserve pits would not be located in areas where groundwater is less than 50 feet from the surface. A closed system would be required if water shows in the rat or mouse hole.

Produced water from oil and gas operations would be disposed of in accordance with the requirements of Onshore Oil and Gas Order #7.

Any pits with harmful fluids in them would be maintained in a manner that would prevent migratory bird mortality.

Any drilling fluids pit that shows indications of containing hazardous wastes would be tested for the Toxicity Characteristic Leaching Procedure constituents. If analysis proves positive, the fluids would be disposed of in an approved manner. The cost of the testing and disposal would be borne by the potentially responsible party.

A controlled surface use stipulation would be applied for activities within 0.25 mile or the visual horizon (whichever is closer) of the Wilderness Study Area (WSA) boundary. Actions within or adjacent to the WSAs would be evaluated on a case-by-case basis to determine if appropriate mitigation would be necessary. According to the Pinedale Revised RMP, there are two WSAs in the Pinedale Planning Area, the Scab Creek WSA on the east side of the Wind River Range and the Lake Mountain WSA just north of Lincoln County. Therefore, at this time, this requirement is not known to apply to the PAPA.

Wells, pipelines, and ancillary facilities would be designed and constructed such that they would not be damaged by moderate earthquakes. Any facilities defined as critical according to the Uniform Building Code would be constructed in accordance with applicable Uniform Building Code Standards for Seismic Risk Zone 2B.

Before conducting any reserve pit evaporation, by means other than natural evaporation, the Operator would submit a Sundry Notice for Authorized Officer approval. The Sundry Notice would provide a detailed description of the drying method. The Operator is also required to obtain authorization from the WOGCC for pit fluid treatment by means other than natural evaporation.

Sewage disposal facilities would be in accordance with state and local regulations.

Trash would be contained in a portable covered trash cage. The trash cage would be emptied in a WDEQ approved sanitary landfill. BLM prohibits littering.

Slope, grade, and other construction control stakes (e.g., exterior boundary centerline, etc.) would be placed, as necessary, to ensure construction in accordance with the surface use plan. The cut and fill slopes and spoil storage areas would be marked with a stake and/or lath at a minimum of 50-foot intervals. The tops of the stakes or laths would be painted or flagged in a distinctive color. All boundary stakes and/or laths would be maintained in place until final construction cleanup is completed. If stakes are disturbed, they would be replaced before proceeding with construction.

Drilling, well completion, and workover lights would be shrouded and directed on to the drilling platform and/or well pad, to the extent allowed by safety requirements, so that lights/glare are not directed away from the well pad.

The Operator would submit to the BLM Authorized Officer within 30 days of pad construction a digital as-built file of the following: the perimeter of the pad measured at the base of fill slopes and at the head of cut slopes including all associated soil pile locations, and the centerline of the access road. Where possible, the Operator would also submit to the BLM Authorized Officer within 30 days of drilling, a digital file of the surface location of the well head(s). The digital depiction would be in one of the following file formats: shapefile format (*.shp), geodatabase (*.gdb), or AutoCADD (*.dwg), and should come with defined projections in NAD83 UTM Zone 12 N. The Operator may be required to notify the BLM via a website no earlier than 15 days and no later than 3 working days prior to commencement of the well pad or access road construction activities. Notification would also be made via the same website at least 24 hours before well spudding and a written sundry notice of the well spud must be submitted within 5 working days.

Construction under adverse conditions may require additional mitigation measures.

Soil, Erosion, and Sediment Control

Prudent use of erosion control measures, including diversion terraces, riprap, matting, temporary sediment traps, and water bars would be employed as necessary. These erosion control measures would be used as appropriate to control surface runoff generated at well locations. The type and location of sediment control structure, including construction methods, would be described in APD and ROW plans. If necessary, to reduce suspended sediment loads and remove potential contaminants, Operators may treat diverted water in detention ponds prior to release to meet applicable state or federal standards.

Best Management Practices (BMP's) would be required to control sediment from all construction sites. Because of concerns regarding potential sediment impacts to the New Fork and Green rivers, BLM would require Operators to provide more detailed plans, with their APD and/or right-of-way application, for erosion control, revegetation, and restoration on sites within 1 mile of the Green and New Fork rivers. These plans would be required prior to initiating any construction activities.

Before a surface disturbing activity is authorized, topsoil depth would be determined. The amount of topsoil to be removed, along with topsoil placement areas, would be specified in the authorization. The uniform distribution of topsoil over the area to be reclaimed would be required, unless conditions warrant a varying depth. On large surface-disturbing projects (e.g., gas processing plants) topsoil would be stockpiled and seeded to reduce erosion. Where feasible, topsoil stockpiles would be designed to maximize surface area to reduce impacts to soil microorganisms. Stockpiles remaining less than 2 years are best for soil micro-organism survival and native seed viability.

Emphasis would be placed on the reduction of soil erosion and sediment into the Green River Basin watershed. Of particular importance would be those areas with saline soils or those areas with highly erodible soils. Critical erosion condition areas would continue to be identified during soil surveys, monitoring, site specific project analysis, and activity plan development for the purpose of avoidance and special management.

Operators would avoid adverse impacts to soils by:

- minimizing disturbance, avoiding construction with frozen soil material,
- avoiding areas with high erosion potential (e.g., unstable soil, dunal areas, slopes greater than 25%, floodplains), where possible,
- salvaging and selectively handling topsoil from disturbed areas,
- adequately protecting stockpiled topsoil and replacing it on the surface during reclamation,
- leaving the soil intact (scalping only) during pipeline construction, where possible,
- using appropriate erosion and sedimentation control techniques including, but not limited to, diversion terraces, riprap, and matting,
- promptly revegetating disturbed areas using adapted species,
- applying temporary erosion control measures such as temporary vegetation cover,
- applying biodegradable mulch, netting, or soil stabilizers, and

- construction of barriers as appropriate in certain areas to minimize wind and water erosion and sedimentation prior to vegetation establishment.

Management of the soil resource would continue to be based upon the following: 1) Evaluation and interpretation of soils in relation to project design and development; 2) Identification and inventory of soils for baseline data; and 3) Identification and implementation of methods to reduce accelerated erosion.

Evaluation and interpretation involves identification of soil properties which would influence their use and recommendations for development while minimizing soil loss. Projects would be examined on a site-specific basis, evaluating the potential for soil loss and the compatibility of soil properties with project design. Stipulations and mitigating measures are provided on a case-by-case basis to ensure soil conservation and practical management. Projects requiring soil interpretations include: construction of linear right-of-way facilities (i.e., pipelines, roads, railroads, and power transmission lines); construction of water impoundments; rangeland manipulation through fire or mechanical treatments; construction of plant site facilities, pump stations, well pads and associated disturbances; and reclamation projects.

BLM would require each individual right-of-way, APD or other application to include a reclamation plan approved by the BLM. Each Master Development Plan for projects which cumulatively disturb more than 10 acres would be required to submit an Erosion, Revegetation and Restoration Plan (ERRP) consistent with BLM guidance. Prior to new disturbance, ERRP's would be approved by the BLM Authorized Officer. Operators would utilize existing disturbance where possible for field operations including but not limited to drilling, completions, and/or production operations. Each Operator would be required to supply in January and June of each year data indicative of well pad status including but not limited to new construction, expansion, and/or reclamation. Disturbance data submissions would be in conformance with the standards set forth in the Jonah Infill Record of Decision issued in March of 2006.

Roads

The Operator would regularly maintain all lease roads in a safe, usable condition. A regular maintenance program would include, but not be limited to, blading, ditching, culvert installation, drainage installation, surfacing, and cattleguards, as needed. Design, construction, and maintenance of the road would be in compliance with the standards contained in BLM Manual, Section 9113 (Roads), and in the latest version of the "Gold Book", Oil and Gas Surface Operating Standards for Oil and Gas Exploration and Development.

At the discretion of the BLM Authorized Officer, road construction may be required to be monitored by a qualified individual agreed to by the BLM Authorized Officer and the Operator. A certified civil engineer is to submit a statement that the road was built as designed within 15 days after the road has been constructed. Compaction of the subgrade with water and heavy equipment to a density higher than the surrounding subsurface is required during construction.

Project-related travel would be limited to only that necessary for efficient project operation during periods when soils are saturated and excessive rutting could occur.

Roads would be constructed as described in BLM Manual 9113. New main artery roads would be designed to reduce sediment, salt, and phosphate loading to the Green and New Fork rivers. Where necessary, running surfaces of the roads would be graveled if the base does not already contain sufficient aggregate.

Where deemed necessary and effective by the BLM Authorized Officer, locked gates would be installed on oil field roads (with structures added to prevent drive-arounds) to reduce traffic and protect other resources (e.g., wildlife, cultural resources, etc.) from impacts caused by increased vehicle traffic and human presence. The need and location of locked gates would be determined during the transportation planning process. The selective use of locked gates, where practicable, could be used to protect any significant cultural sites found during inventories. This approach is more commonly used as a seasonal restriction to protect wildlife during winter months, but some applications may also present themselves from a cultural resources standpoint.

To control or reduce sediment from roads, guidance involving proper road placement and buffer strips to stream channels, graveling, proper drainage, seasonal closure, and in some cases, redesign or closure of old roads would be developed when necessary. Construction may also be prohibited during periods when soil material is saturated, frozen, or when watershed damage is likely to occur. BLM would require in-use roads to be redesigned or closed when unnecessary or undue environmental impacts (such as sedimentation) have not been alleviated through use of other mitigations and where the detrimental impacts of the existing road outweighs the impacts associated with new surface disturbance to rebuild the road.

Available topsoil would be stripped from all road corridors prior to commencement of construction activities and would be redistributed and reseeded on backslope areas of the borrow ditch after completion of road construction activities. Borrow ditches would be reseeded in the first appropriate season after initial disturbance.

On newly constructed roads and permanent roads, the placement of topsoil, seeding, and stabilization would be required on all cut and fill slopes unless conditions prohibit this (e.g., rock). No unnecessary side-casting of material (e.g., maintenance) on steep slopes would be allowed. Snow removal plans may be required so that snow removal does not adversely affect reclamation efforts or resources adjacent to the road.

Reclamation of abandoned roads would include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and seeding on the contour. Road beds, well pads, and other compacted areas would be ripped to a depth of two feet on 1.5 foot centers to reduce compaction prior to spreading the topsoil across the disturbed area. Stripped vegetation would be spread over the disturbance for nutrient recycling, where practical. Fertilization or fencing of these disturbances would not normally be required. Additional erosion control measures (e.g., fiber matting) and road barriers to discourage travel may be required. As deemed necessary by the BLM Authorized Officer, graveled roads, well pads, and other sites would be stripped of usable gravel and hauled to new construction sites prior to ripping. The removal of structures such as bridges, culverts, cattleguards, and signs usually would be required.

Main artery roads, regardless of primary user, would be crowned, ditched, drained, and, if deemed appropriate by the BLM Authorized Officer, surfaced with gravel to reduce sediment, salt, and phosphate loading to the Green and/or New Fork Rivers.

Road closures may be implemented during crucial periods (e.g., wildlife winter periods, spring runoff, and calving and fawning seasons, saturated soil conditions).

Individual road design plans for new and/or improved roads would be submitted for approval as components of APDs or ROW permits. Plans must be approved prior to initiation of work. Operators would schedule a review of plans with sufficient time to obtain BLM approval prior to commencement of work.

Existing roads would be used to the maximum extent possible and upgraded as necessary.

Operators would comply with existing federal, state, and county requirements and restrictions to protect road networks and the traveling public.

All development activities along approved ROWs would be restricted to areas authorized in the approved ROW.

Roads and pipelines would be located adjacent to existing linear facilities wherever practical.

As deemed necessary by the BLM Authorized Officer, Operators and/or their contractors would post appropriate warning signs and require project vehicles to adhere to appropriate speed limits on project-required roads.

The application of produced water on roads for use in dust suppression activities would not be allowed unless total dissolved solids (TDS) are less than 400 mg/l (state standard for the Colorado River drainage) and the water does not contain hazardous material. No produced water would be allowed on roads in Sublette County without an approved permit issued by the WDEQ and authorization granted by the BLM.

Production Facilities

All storage tank batteries, including drain sumps and sludge holdings at compressor facilities, installed on location and designed to contain any oil, glycol, produced water, or other fluid which may constitute a hazard to public health or safety, would be surrounded by a secondary means of containment for the entire contents of the largest single tank in use plus one foot of freeboard for precipitation or 110 percent of the capacity of the largest vessel. The appropriate containment and/or diversionary structures or equipment, including walls and floor, to prevent discharged fluid from reaching ground, surface, or navigable waters, would be impervious to any oil, glycol, produced water, or other fluid for 72 hours and would be constructed so that any discharge from a primary containment system, such as a tank or pipe, would not drain, infiltrate, or otherwise escape to ground, surface, or navigable waters before cleanup is completed.

Treaters, dehydrators and other production facilities installed on location, that have the potential to leak or spill oil, glycol, produced water, or other fluid which may constitute a hazard to public health or safety, would be placed on or within appropriate containment and/or diversionary structure to prevent spilled or leaking fluid from reaching ground, surface, or navigable waters. The appropriate containment and/or diversionary structure would be sufficiently impervious to oil, glycol, produced water, or other fluid and would

be installed so that any spill or leakage, would not drain, infiltrate, or otherwise escape to ground, surface, or navigable waters before cleanup is completed.

All above ground permanent structures (permanent means on-site for longer than 90 days) not subject to safety requirements would be painted by the Operator to blend with the natural color of the landscape. New production facilities would be painted a non-contrasting color which is harmonious with the surrounding landscape as specified and approved by the BLM on a case-specific basis.

Stream sediment, phosphate, and salinity load would be reduced where possible. In areas where ground water exists 50 feet or less from the surface (WOGCC), produced water from oil and gas operations would be disposed of in an approved closed storage system or by other acceptable means complying with Onshore Order #7.

Where depth to groundwater is less than 100 feet and soil permeability is more than 0.1 foot/day, plants, mills, or associated tailings ponds and sewage lagoons would not be allowed.

Proper containment of oil and produced water in tanks, drilling fluids in reserve pits, as well as locating staging areas for storage of equipment away from drainages would prevent potential contaminants from entering surface waters.

All new production facilities construction which has open-vent exhaust stacks would be equipped to prevent bird and bat entry or perching on the stack.

A sundry notice must be submitted and approved prior to any pit closures or reclamation work.

In the event that any hydrocarbon material is released into the reserve or production pits, it would be removed within seven (7) days of the discharge event.

All secondary containment structures specifically used for methanol containment would be designed so as to prevent bird, animal, or livestock entry.

Pipelines

Channel crossings by pipelines would be constructed so that the pipe is buried at a depth sufficient to ensure the pipeline does not become exposed as dictated by site specific conditions.

Channel crossings by roads and pipelines would be constructed perpendicular to flow. Streams/channels crossed by roads would have culverts installed at all appropriate locations as specified in the BLM Manual 9112-Bridges and Major Culverts (BLM 1990) and Manual 9113-Roads (BLM 1985) Streams would be crossed perpendicular to flow, where possible, and all stream crossing structures would be designed to carry the 25-year discharge event or other capacities as directed by the BLM.

Operators or pipeline contractors would comply with state and federal regulations for water discharged into an established drainage channel. The rate of discharge would not exceed the capacity of the channel to convey the increased flow. Waters that do not meet applicable state or federal standards would be evaporated, treated, or disposed of

at an approved disposal facility. The disposal of all water (hydrostatic test water, stormwater, produced water) would be done in conformance with WDEQ-Water Quality Division (WQD), BLM Onshore Oil and Gas Order No. 7, and WOGCC rules and regulations.

Wetland areas would be crossed during dry conditions (i.e., late summer, fall, or dry winters); winter construction activities would occur only prior to soil freezing or after soils have thawed.

On ditches exceeding 24 inches in width, 6 to 12 inches of surface soil would be salvaged where possible on the entire right-of-way. When pipelines and communication lines are buried, there would be at least 30 inches of backfill on top of the pipe. Backfill should not extend above the original ground level after the fill has settled. Guides for construction and water bar placement are found in the most current version of "Surface Operating Standards for Oil and Gas Exploration and Development".. Bladed surface materials would be re-spread upon the cleared route once construction is completed. Disturbed areas that have been reclaimed may need to be fenced when the route is near livestock watering areas.

Pipeline ROWs would be located to minimize soil disturbance. Mitigation would include locating pipeline ROWs adjacent to access roads to minimize ROW disturbance widths, or routing pipeline ROWs directly to minimize disturbance lengths.

Existing crowned and ditched roads would be used for access where possible to minimize surface disturbances. Clearing of pipeline and communication line rights-of-way would be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it would be stockpiled (wind-rowed) and re-spread over the disturbance after construction and backfilling are completed. Vegetation removed from the right-of-way would also be required to be re-spread to provide protection, nutrient recycling, and a seed source.

Temporary disturbances which do not require major excavation (e.g., small pipelines and communication lines) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root mass relatively undisturbed.

Trees, shrubs, and ground cover (not to be cleared from rights-of-way) would require protection from construction damage. Backfilling to preconstruction condition (in a similar sequence and density) would be required. The restoration of normal surface drainage would also be required.

To promote soil stability, the compaction of backfill over the trench would be required (not to extend above the original ground level after the fill has settled). Wheel or other method of compacting the pipeline trench backfill would be required at two levels to reduce trench settling and water channeling. Once after 3 feet of fill has been replaced and once within 6-12 inches of the surface. Water bars, mulching, and terracing would be required, as needed, to minimize erosion. In-stream protection structures (e.g., drop structures) may be required in drainages crossed by a pipeline to prevent erosion. The fencing of linear disturbances near livestock watering areas may be required.

The Operator, grantee, or lessee would be responsible for the control of all noxious weed infestations on surface disturbances. Prior to any treatment, the Operator,

grantee, or lessee would be responsible for submission of Pesticide Use Proposals and subsequent Pesticide Use Reports. Control measures would adhere to those allowed in the Final Vegetation Treatments Using Herbicides on BLM in17 Western States Programmatic EIS (June 2007) and ROD (September 2007), Rock Springs District Noxious Weed Control EA (USDI 1982a) or the Regional Northwest Area Noxious Weed Control Program EIS (USDI 1987). Herbicide approvals and treatments would be monitored by the BLM Authorized Officer. Aerial application of chemicals would be prohibited within 1/4 mile of special status plant locations, and hand application would be prohibited within 500 feet.

Truck traffic would not be allowed under conditions where the total volume of traffic creates ruts of 3 inches or greater on roads that are not graveled or otherwise approved for all season use.

Crossings of ephemeral, intermittent, and perennial streams associated with road and utility line construction would generally be restricted until after spring runoff and normal flows are established.

Reclamation

BLM would require each individual right-of-way, APD or other application to include a reclamation plan approved by the BLM

Site Stabilization:

1. All bare ground on a well pad that does not have active development drilling, completion, and construction) and is not required for production activities would have at least 75 percent protective cover that may include but not be limited to organic mulch, herbaceous vegetation, jute matting, or other erosion-preventative fabric.

2. During the period when an existing well pad is not being fully developed, there would be no sediment discharge from the existing pad. Operators would modify all existing well pads to approach zero sediment discharge for a 25-year storm or snowmelt event within 1 year of following authorization by BLM in the SEIS ROD.

3. Access road(s) leading to the temporarily stabilized well pad would have protective cover to the same levels required on the well pad.

Disturbed channel beds would be reshaped to their approximate original configuration.

Streams, wetlands, and riparian areas disturbed during project construction would be restored to as near pre-project conditions as practical, and if impermeable soils contributed to wetland formation, soils would be compacted to reestablish impermeability.

Wetland topsoil would be selectively handled.

Areas would be recontoured and BLM-approved species would be used for reclamation. Reclamation activities would begin on disturbed wetland areas immediately after completion of project activities.

Upon completion of construction and/or production activities, Operators would restore the topography to near pre-existing contours at well sites, access roads, pipelines, and other facility sites.

All roads on federal lands not required for routine operation and maintenance of producing wells, ancillary facilities, livestock grazing administration, or necessary recreation access would be reclaimed as directed by the BLM. These roads would be permanently blocked, recontoured, reclaimed, and revegetated by the Operators, as would disturbed areas associated with permanently plugged and abandoned wells.

Disturbances should be reclaimed or managed to approach zero sediment discharge. All excavations and pits should be closed by backfilling and contouring to conform to surrounding terrain. On well pads and larger locations, the surface use plan would include objectives for successful reclamation including: soil stabilization, plant community composition, and desired vegetation density and diversity.

On producing locations, Operators would be required to reduce slopes to original contours (not to exceed 3:1 slopes). Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded, and erosion control measures installed. Erosion control measures would be required after slope reduction. Facilities would be required to approach zero runoff from the location to avoid contamination and water quality degradation downstream. Mulching, erosion control measures, and fertilization may be required to achieve acceptable stabilization.

Abandoned sites must be satisfactorily rehabilitated in accordance with a plan approved by the BLM. Soil samples may be analyzed to determine reclamation potential, appropriate reseeding species, and nutrient deficits. Tests may include: pH, mechanical analysis, electrical conductivity, and sodium content. Terraces or elongated water breaks would be constructed after slope reduction.

Current BLM policy recognizes that there may be more than one correct way to achieve successful reclamation, and a variety of methods may be appropriate to the varying circumstances. BLM would continue to allow applicants to use their own expertise in recommending and implementing construction and reclamation projects. These allowances still hold the applicant responsible for final reclamation standards of performance.

All reclamation is expected to be accomplished as soon as possible after the disturbance occurs with efforts continuing until a satisfactory revegetation cover is established and the site is stabilized (3 to 5 years). Only areas needed for construction would be allowed to be disturbed.

On all areas to be reclaimed, seed mixtures would be required to be site-specific, composed of native species, and would be required to include species promoting soil stability. A pre-disturbance species composition list must be developed for each site if the project encompasses an area where there are several different plant communities present. Livestock palatability and wildlife habitat needs would be given consideration in seed mix formulation. BLM guidance for native seed use is BLM Manual 1745 (Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants), and Executive Order No. 11987 (Exotic Organisms).

Interseeding, secondary seeding, or staggered seeding may be required to accomplish revegetation objectives. During rehabilitation or areas in important wildlife habitat, provision would be made for the establishment of native browse and form species, if determined to be beneficial for the habitat affected. Follow-up seeding or corrective erosion control measures may be required on areas of surface disturbance which experience reclamation failure.

Any mulch and mineral material (sand and gravel) used would be certified weed free and free from mold or fungi. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting, and rock. Straw mulch should contain fibers long enough to facilitate crimping and provide the greatest cover.

Operators would monitor noxious weed occurrence on the project area and implement a noxious weed control program in cooperation with the BLM and Sublette County to ensure noxious weed invasion does not become a problem. Weed-free certification by county extension agents would be required for grain or straw used for mulching revegetated areas. Gravel and other surfacing materials used for the project would be reasonably free of noxious weeds.

Herbicide applications would be kept at least 500 feet from known SSPS populations or other distance deemed safe by the BLM Authorized Officer.

Wetlands, Riparian Areas, and Flood Plains

All surface disturbance, permanent facilities, etc., would remain a minimum of 500 feet away from the edge of surface waters, riparian areas, wetlands, and 100-year floodplains unless it is determined through site specific analysis, approved in writing by the BLM Authorized Officer, that there is no practicable alternative to the proposed action. If such a circumstance exists, then all practicable measures to mitigate possible harm to these areas must be employed. These mitigating measures would be determined on a case-by-case basis and may include, but are not limited to, diking, lining, screening, mulching, terracing, and diversions.

Floodplains by their very nature are unsafe locations for permanent structures. With an inundation of flood waters, soils disturbed by construction could experience a rate of erosion greater than undisturbed sites. There is an additional concern over the potential for flood waters to aid in the dispersal of hazardous materials that may be stored within such structures. Therefore, federally-managed 100-year floodplains would have no permanent structures constructed within their boundaries unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. In cases where floodplain construction is approved, additional constraints could be applied.

Floodplain Executive Order 11988 (Section 2.a.(2)) states in summary that "...if the HEAD OF THE AGENCY finds that the only practicable alternative consistent with the law and the policy set forth in the Order requires siting in a floodplain, the agency would, prior to taking action, 1) design or modify its action in order to minimize potential harm...and 2) prepare and circulate a notice containing an explanation of why the action proposed is to be located in the floodplain.

Floodplain Executive Order 11988 (Section 3), in reference to federal real property and facilities states that agencies would, if facilities are to be located in a floodplain (i.e., no

practicable alternative), apply flood protection measures to new construction or rehabilitate existing structures, elevate structures rather than fill the land, provide flood height potential markings on facilities to be used by the public, and when the property is proposed for lease, easement, right of way, or disposal, the agency has to attach restriction on uses in the conveyance, etc., or withhold from such conveyance.

Any disturbances to wetlands and/or waters of the U.S. would be coordinated with the COE, and 404 permits would be secured as necessary prior to disturbance.

Operators would evaluate all project facility sites for occurrence of waters of the U.S., special aquatic sites, and wetlands, per COE requirements. All project activities would be located outside of these sensitive areas, where practical.

Where disturbance of wetlands, riparian areas, streams, and ephemeral/intermittent stream channels cannot be avoided, COE Section 404 permits would be obtained by the Operator as necessary.

Air Quality

In accordance with Wyoming Air Quality Standards and Regulations Chapter 3, Section 2(f), the emission of fugitive dust would be limited by all persons handling, transporting, or storing any material to prevent unnecessary amounts of particulate matter from becoming airborne to the extent that ambient air standards described in these regulations are exceeded.

Necessary air quality permits to construct, test, and operate facilities would be obtained from the WDEQ-Air Quality Division. All internal combustion equipment would be kept in good working order.

Operators would comply with all applicable local, state, tribal, and federal air quality laws, statutes, regulations, standards, and implementation plans, including Wyoming Ambient Air Quality Standards (WAAQS) and National Ambient Air Quality Standards (NAAQS).

To avoid the incremental risk of exposure to carcinogenic toxins from producing wells, no well would be located closer than 0.25 mile from a dwelling or residence. At 0.25 mile, the incremental risk increase for the most likely exposure scenario is below the designated threshold level of less than 1 additional person per million.

To avoid incremental risk of exposure to carcinogenic toxins from compressor facilities, any compressor facility located closer than 4 miles to a dwelling or residence would require additional NEPA analysis prior to the final selection of the site and authorization to construct.

Recreation

Operators would restrict off-road vehicle (ORV) activity by employees and contract workers to the immediate area of authorized activity or existing roads and trails.

Grazing

All range improvements (stock water tanks, pipelines, corrals, etc.) should be avoided by 500 feet unless no other alternative is available and impacts can be mitigated as per the BLM Authorized Officer.

Groundwater and Surface Water

Notice of any spill or leakage, as defined in BLM NTL 3A, would be immediately reported by the Operator to the Authorized Officer and other such federal and state officials (e.g., WDEQ) as required by law. Verbal notice would be given as soon as possible, but within 24 hours, and verbal notices would be confirmed in writing within 72 hours of any such occurrence. Any accidental soil contamination by spills of petroleum products or other hazardous materials would be cleaned up and the soil disposed of or rehabilitated according to WDEQ Solid Waste Guidelines (#2) for petroleum contaminated soils.

Operators would prepare Stormwater Pollution Prevention Plans (SWPPPs) for their respective areas of field development as required by WDEQ National Pollution Discharge Elimination System (NPDES) permit requirements.

Any industrial water wells and any tanks, pumps, hoses, pipes or other associated connections would include check valves, backflow preventers or other devices that secure the well against discharge of fluids into the well.

All fresh water used for the drilling of the surface casing must comply with all requirements concerning water quality as set forth by the WOGCC Regulations.

All water used in association with this project would be permitted through the Wyoming State Engineer's Office.

All water wells put to beneficial use, including produced water associated with this project, would be under the jurisdiction of the Wyoming State Engineer's Office.

Cultural/Paleontological Resources

If effects to paleontological values, objects of historic or scientific interest, are observed, the Operator would be required to immediately contact the BLM and the Operator would be required to cease any operations that would result in the destruction of or adverse impact to these values.

In areas of paleontological sensitivity, a determination would be made by the BLM as to whether a survey by a qualified paleontologist is necessary prior to the disturbance. In some cases, construction monitoring, project relocation, data recovery, or other mitigation would be required to ensure that significant paleontological resources are avoided or recovered during construction.

If paleontological resources are uncovered during surface-disturbing activities, Operators would suspend operations at the site that would further disturb such materials and immediately contact the BLM Authorizer Officer, who would arrange for a determination of significance, and, if necessary, recommend a recovery or avoidance plan. Mitigation

of impacts to paleontological resources would be on a case-by-case basis, and Operators would either avoid or protect paleontological resources.

Areas underlain by either the Wasatch or Green River formations have a high potential for containing vertebrate paleontological resources (fossils) and must be surveyed by a qualified paleontologist before surface disturbing activities would be authorized if determined appropriate by the BLM AO. Based on the results of the paleontological survey, additional monitoring and/or mitigation would be necessary. All major pipelines (12" and larger) would have paleontological open trench inspections and geologic research to resolve mapping issues identified in Chapter 3. Other actions, such as on-site project monitors by professional paleontologists while surface disturbing activities are occurring, and/or spot-checks of spoil piles, pits and trenches prior to backfilling would become more common and would be considered standard stipulations within the Blue Rim-Ross Butte Management Area.

Operators would follow the Section 106 compliance process prior to any surface-disturbing activity and would either avoid or protect cultural resource properties.

Operators would halt construction activities at the site of previously undetected cultural resources discovered during construction. The BLM would be notified immediately, and consultation with the Wyoming State Historic Preservation Office (SHPO) and, if necessary, the Advisory Council, would be initiated to determine proper mitigation measures pursuant to 36 CFR 800.11 or other treatment plans, programmatic agreements, or discovery plans that may direct such efforts. Construction would not resume until a Notice to Proceed is issued by the BLM.
In culturally sensitive soils, if cultural resources are located within frozen soils or sediments precluding the ability to adequately record or evaluate the find, construction work would cease and the site would be protected for the duration of frozen soil conditions. Following natural thaw, recordation, evaluation and recommendations concerning further management would be made to the BLM Authorized Officer, who would consult with affected parties. Construction work would be suspended until management of the threatened site has been finalized.

Should future work identify any traditional Native American religious or sacred sites, consultation among the BLM, the affected Native American group, the Wyoming SHPO and the project proponent would occur to resolve conflicts. This consultation would occur on a case-by-case basis, or in conformance with an approved Native American Concerns Agreement Document.

Operators should inform their employees, contractors and subcontractors about relevant federal regulations intended to protect archaeological and cultural resources. All personnel should be informed that collecting artifacts (including arrowheads) is a violation of federal law and that employees engaged in this activity may be subject to disciplinary action, which could include dismissal.

Equipment operators should be informed that a cultural resource could be found anywhere; and if they uncover a site during construction, surface disturbing activities at the site must be immediately halted and the BLM notified.

Historic trails would be avoided. Surface disturbing activities would avoid areas within 0.25 miles of a trail unless such disturbance would not be visible from the trail or would

occur in an existing visual intrusion area. Historic trails would not be used as haul roads. Placement of facilities outside 0.25 mile that are within view of the Lander Trail would be located to blend the site and facilities in with the background.

Hazardous Waste Disposal

Operators would utilize WDEQ-approved portable sanitation facilities at drill sites; place warning signs near hazardous areas and along roadways; place dumpsters at each construction site to collect and store garbage and refuse; ensure that all refuse and garbage is transported to a State-approved sanitary landfill for disposal; and institute a Hazard Communication Program for its employees and require subcontractor programs in accordance with OSHA (29 CFR 1910.1200).

In accordance with 29 CFR 1910.1200, a Material Safety Data Sheet for every chemical or hazardous material brought on-site would be kept on file at the Operator's field office.

Chemical and hazardous materials would be inventoried and reported in accordance with the SARA Title III (40 CFR 335). If quantities exceeding 10,000 pounds or the threshold planning quantity are to be produced or stored, the appropriate Section 311 and 312 forms would be submitted at the required times to the State and County Emergency Management Coordinators and the local fire departments.

Any hazardous wastes, as defined by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, would be transported and/or disposed of in accordance with all applicable federal, state, and local regulations.

Owners or operators of onshore facilities (any facility of any kind, or drilling or workover rigs) that, due to their location, could reasonably be expected to discharge oil in harmful quantities (as defined in 40 CFR part 110 & 112.3), into or upon navigable waters of the United States or adjoining shorelines, would prepare a Spill Prevention Control and Countermeasure Plan (SPCC Plan) in accordance with 40 CFR 112.7. Owners or operators of drilling or workover rigs need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, using good engineering practice (40 CFR 112.3 (a), (b), and (c)). Owners or operators of a facility for which an SPCC Plan is required would maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended (40 CFR 112.3(e)).

SPCC Plans would be implemented and adhered to in a manner such that any spill or accidental discharge of oil would be remediated. An orientation should be conducted by the Operators to ensure that project personnel are aware of the potential impacts that can result from accidental spills and that they know the appropriate recourse if a spill occurs. Where applicable and/or required by law, streams at pipeline crossings would be protected from contamination by pipeline shutoff valves or other systems capable of minimizing accidental discharge. If reserve pit leakage is detected, operations at the site would be curtailed, as directed by the BLM, until the leakage is corrected.

All natural gas wells would be cased and cemented to protect subsurface mineral and freshwater zones. Unproductive wells and wells that have completed their intended purpose would be properly abandoned and plugged using procedures identified by the Office of State Oil and Gas Supervisor, Rules and Regulations of WOGCC and the BLM.

Threatened and Endangered Species, Special Status Species, and Wildlife

T&E and Special Status Species

If while conducting operations, substantial unanticipated environmental effects to listed, proposed or candidate species are observed (whether effects are direct or indirect), formal consultation with U.S. Fish and Wildlife Service (USFWS) would be immediately initiated in addition to cessation of all such operations.

USFWS and WGFD consultation and coordination would be conducted for all mitigation activities relating to raptors and T&E species and their habitats, and all permits required for movement, removal, and/or establishment of raptor nests would be pursued if they meet USFWS migratory bird office requirements.

Surveys for T&E and candidate wildlife species would be implemented in areas of potential habitat by a qualified biologist prior to disturbance. Findings would be reviewed by the BLM prior to or as components of ROW applications and APD review processes. If T&E and/or candidate species are found in the area, consultation with the USFWS would be initiated, and construction activities would be curtailed until there is concurrence between BLM and USFWS, on what activities can be authorized.

Proposed construction sites in the development area would be examined prior to surface-disturbing activities to confirm the presence or absence of prairie dog colonies, where appropriate. Confirmation would be made of white-tailed prairie dog colony/complex size, burrow density, and any other data to indicate whether the criteria for black-footed ferret habitat, established in the USFWS guidelines, are present. If prairie dog colony/complex meets the USFWS criteria, a qualified biologist would locate all project components to avoid direct, indirect and cumulative impacts to the colony/complex. If this is not practical or possible, black-footed ferret surveys of the prairie dog colony/complex, where required by the USFWS, would be conducted in accordance with USFWS guidelines and requirements. The results of the survey would be provided to the USFWS in accordance with Section 7 of the ESA, as amended, and Interagency Cooperation Regulations (50 CFR § 402-June 3, 1986). If a black-footed ferret or its sign is found during the survey, the BLM Authorized Officer would stop all action on the application in hand. New roads and trails should not cross colonies.

A survey for black-footed ferret may be required prior to approval of construction activities.

The USFWS has determined that any withdrawal of water from the Colorado River System (surface or ground water) would jeopardize the endangered Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. The USFWS Colorado River Endangered Fish Recovery Program requires a depletion fee be paid by the proponent to help support the recovery program. The fee is required for each acre-foot of water depletion where the depletion of water is in excess of 100 acre-feet from the Colorado River system.

Operators would finance site-specific surveys for special status plant species (SSPS) prior to any surface disturbance in areas determined by the BLM to contain potential habitat for such species (Directive USDI-BLM 6840). These surveys would be

completed by a qualified botanist as authorized by the BLM and this botanist would be subject to BLM's SSPS survey policy requirements. Data from these surveys would be provided to the BLM, and if any SSPS or habitats are found, BLM recommendations for avoidance or mitigation would be implemented.

Migratory Birds

Bald eagles roost, perch, feed, and nest along the Green and New Fork rivers. To ensure continued protection of this species, no surface disturbing or human activities would be authorized between November 1 and April 1 within 1.0 mile of known bald eagle winter use areas. All surface-disturbing or human activity, including construction of roads, pipelines, well pads, drilling, completion, or workover operations, would be seasonally restricted from February 1 through August 15 within 1.0 mile of all active eagle nests. An active eagle nest is one that has been occupied once in the past 5 years.

Permanent (life of the project) and high profile structures such as well locations, roads, buildings, storage tanks, overhead power lines, etc., and other structures requiring repeated human presence would not be constructed within 825 feet (1,000 feet for ferruginous hawks; 2,600 feet for bald eagles) of occupied raptor nests. Wells that must be located closer than 2,600 feet (but would not be allowed closer than 2,000 feet) of a bald eagle nest would be out of the direct line of sight of the nest; would have no human activity at the well site from February 1 through August 15 except in the case of an emergency; and would locate production facilities off-site or at a central production facility location at a distance of 2,600 feet or more from the nest. In these cases the USFWS would be contacted to ensure compliance under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

All surface-disturbing activity (e.g., road, pipeline, well pad construction, drilling, completion, workover operations) would be seasonally restricted from February 1 through July 31 within a 0.5-mi radius of all occupied raptor nests, except ferruginous hawk nests, for which the seasonal buffer would be 1.0 mi. The seasonal buffer distance and exclusion dates applicable may vary depending on such factors as the activity status of the nest, species involved, prey availability, natural topographic barriers, line-of-site distance(s), and other conflicting issues such as cultural values, steep slopes, etc.

Except for bald eagles which are discussed above, raptor nest surveys would be conducted for active nests within a 0.5- to 1.0-mile radius of proposed surface use or activity areas if such activities are proposed to be conducted between February 1 and July 31. An active raptor nest is defined as a nest that has been occupied within the past 3 years.

The buffer distance for raptors may vary depending upon the species involved, prey availability, natural topographic barriers, line-of-sight distances, and other conflicting issues such as cultural values, steep slopes, etc. Linear disturbances such as pipelines, seismic activity, etc., could be granted exceptions as long as they would not adversely affect the raptor(s).

Surface disturbing and disruptive activity would be prohibited within 0.5 mile of occupied burrowing owl nests from April 1 through August 15. Surveys may be required to determine nesting status.

For surface disturbing activities, surveys would be conducted within suitable plover habitat by a qualified biologist in accordance with USFWS 1999 guidelines (A copy of the guidelines may be obtained from the USFWS, BLM, or WGFD). Two types of surveys may be conducted. 1) surveys to determine the presence/absence of breeding plovers (i.e., displaying males and foraging adults), or 2) surveys to determine nest density.

If surface disturbing activity is requested to take place in mountain plover habitat between April 10 and July 10, presence / absence surveys are required. Survey results would determine when activities are proposed.

Surveys to determine presence/absence of the plover would be conduct between May 1 and June 15 through out the breeding range.

Visual observation of the area should be made within 0.25 mile of the proposed action to detect the presence of plovers.

A site must be surveyed for plover three times during the survey window, with each survey separated by at least 14 days.

Initiation of the project should occur as near to completion of the plover survey as possible (within 2 days for seismic exploration; a 14-day period may be appropriate for other projects.

If active plover nest is found in the survey area, the planned activity should be delayed 37 days, or one week post-hatching. If a brood of flightless chicks is observed, activities should be delayed at least 7 days.

Plover surveys would be conducted during early courtship and territorial establishment. Throughout the breeding range, this period extends from approximately mid-April through early July. However, the specific breeding period depends on latitude, elevation, and weather.

Plover surveys would be conducted between local sunrise and 10 a.m., and from 5:30 p.m. and sunset (periods of horizontal light to facilitate spotting the white breast of the adult plovers).

Drive transects within the project area to minimize early flushing. Flushing distances for mountain plovers may be within 3 meters (9 to 10 feet) for vehicles, but plovers often flush at 50 to 100 meters (164 to 328 feet) when approached by humans on foot.

Any pits with harmful fluids in them would be maintained in a manner that would prevent migratory bird mortality.

Sage Grouse

Surface disturbance within 0.25 mile of an occupied greater sage-grouse lek would be avoided. Linear disturbances such as pipelines, seismic activity, etc., could be granted exceptions since they do not have long-term, continuous activity associated with them that could impact breeding success.

Permanent (life of the project), high profile structures such as buildings and storage tanks would not be constructed within 0.25 mile of an occupied greater sage-grouse lek.

In selecting a site for a compressor facility, a well pad or other permanent facility, the distance from the edge of a an occupied greater sage-grouse lek would be sufficient to result in a noise level increase from operating facilities no greater than 10 decibels (dBA) above background (i.e., 39 dBA background + 10 dBA = 49 dBA). Further restrictions may be required if the species is determined by the USFWS to be eligible for listing as either threatened or endangered pursuant to the Endangered Species Act. Monitoring would be required by BLM to determine which leks in the PAPA are occupied and which have been abandoned.

If existing information is not current, field evaluations for greater sage-grouse leks and/or nests would be conducted by a qualified biologist prior to the start of activities in potential greater sage-grouse habitat. These field evaluations for leks and/or nests would be conducted if project activities are planned in potential greater sage-grouse habitat between March 15 and July 15. BLM wildlife biologists would ensure that such surveys are conducted using proper survey methods.

Operators would be required to apply noise mitigation at well locations, as determined necessary by the BLM Authorized Officer, on a case-by-case basis.

General Wildlife

Well locations and associated road and pipeline routes would be selected and designed to avoid disturbances to areas of high wildlife value (e.g., raptor nest sites, wetland areas).

Avoid activities and facilities that create barriers to the seasonal movements of big game and livestock.

Reserve, workover, and production pits potentially hazardous to wildlife would be adequately protected (e.g., fencing, netting) to prohibit wildlife access as directed by the BLM.

Wildlife-proof fencing would be utilized on reclaimed areas, in accordance with standards specified in BLM Fencing Handbook 1741-1, if it is determined that wildlife species are impeding successful vegetation establishment.

ROW fencing associated with this project would be kept to a minimum and, if necessary, fences would consist of four-strand barbed wire meeting WGFD approval and BLM Fencing Handbook 1741-1 standards for facilitating wildlife movement.

For all breeding birds observed, additional surveys would be conducted immediately prior to construction activities to search for active nest sites.

To avoid potentially significant noise impacts, compressor engines would be located 2,500 feet or more from a dwelling or residence and from sage-grouse leks.

Visual Resource Management

Approval of well pad locations, new roads, buried pipelines, or other facilities within VRM Class II and III areas and any other visually sensitive area as determined by the BLM AO, would require the Operator to demonstrate to the BLM AO's satisfaction that the location and/or facilities have reasonably incorporated visual design considerations that would mitigate unnecessary visual impacts in all areas of the PAPA.

Within Visual Resource Management (VRM) Class II and III areas, during on-site reviews, the BLM and the Operator would evaluate potential disturbances and impacts to visual resources and identify appropriate mitigation. New roads would be designed so that they conform with the landscape, incorporating curves to eliminate distant, straight line impacts; every opportunity would be taken to reclaim existing road ROWs that are not used. Revegetation would be initiated as soon as possible after disturbance; pipeline ROWs would be located within existing ROWs whenever possible; and aboveground facilities not requiring safety coloration would be painted with appropriate nonreflective standard environmental colors (Carlsbad Canyon or Desert Brown, or other specified standard environmental color) specified by the BLM. Topographic screening, vegetation manipulation, project scheduling, and traffic control procedures would all be employed as deemed appropriate by the BLM to further reduce visual impacts.

Low profile tanks would be required wherever visual sensitivity is an issue and/or wherever deemed appropriate mitigation to help maintain the basic characteristics of the landscape. Unless excepted, BLM would allow only low profile tanks north of the New Fork River and within the Lander Trail viewshed.

Within Visual Resource Management (VRM) Class IV areas, the BLM and Operators would utilize existing topography to screen roads, pipeline corridors, drill rigs, wells, and production facilities from view, where practical. Operators would paint all aboveground production facilities with appropriate colors (e.g., Carlsbad Canyon or Desert Brown) specified by the BLM to blend with adjacent terrain, except for structures that require safety coloration in accordance with OSHA requirements.

One way to avoid visual impacts associated with construction of well pads, roads, and pipelines in visually sensitive areas is to avoid any surface disturbing activities, where practical, on the sensitive soils shown on Map 3.17-1 in the Final SEIS. Locating well pads on sensitive soils or slopes greater than 10 to 15 percent increases the total amount of disturbance because larger areas would be needed to accommodate the well pad, road or pipeline. Furthermore, disturbed sensitive soils could be difficult to reclaim because topsoil is limiting, effective moisture is low and erosion is high. The badland soils in the Blue Rim Area of the PAPA are unique landform features that provide character to the landscape and, if disturbed, could not be reclaimed to their original form. Well pads, roads and buried pipelines would avoid the sensitive soils shown on Map 3.17-1 in the Final SEIS.

Avoid the introduction of new, linear visual intrusions on the landscape. New roads and pipeline corridors, to the extent practicable, would follow contours and use topography as screening. New pipelines would be combined with existing or proposed roads and, wherever possible, new cross-county pipeline corridors would be avoided.

Any well pad developed in any area managed for visual resources, roads and well pads may need to be surfaced with materials that reduce visual contrast. For example, in the VRM Class II area near Pinedale, the subsoil material (Wasatch Formation) can be very light in color and thus contrasts with surrounding undisturbed areas. Mixing topsoil with gravel (1 inch deep) in highly visible areas would help to reduce contrast. Operators would be required to investigate the feasibility of applying this opportunity of surfacing roads and well pads with materials closer in color and texture to the surrounding landscape.