

# **APPENDIX I. BEST MANAGEMENT PRACTICES AND STANDARD OPERATING PROCEDURES APPLICABLE TO OIL AND GAS OPERATIONS AND OTHER PUBLIC LAND-USE AUTHORIZATIONS**

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## **I.1 ENVIRONMENTAL BEST MANAGEMENT PRACTICES FOR OIL AND GAS OPERATIONS<sup>1</sup>**

The following environmental best management practices (BMPs) will be applied to Applications for Permit to Drill and associated rights-of-way in the Monticello Field Office (Monticello FO)n where applicable. These procedures are based on WO IM 2007-021 and the *Surface Operating Standards and Guidelines for Oil and Gas Development (Gold Book)*, 2006.

**The following BMPs will be considered in nearly all circumstances:**

- Interim reclamation of the well and access road will begin as soon as practicable after a well is placed in production. Facilities will be grouped on the pads to allow for maximum interim reclamation. Interim reclamation will include road cuts and fills and will extend to within close proximity of the wellhead and production facilities.
- All aboveground facilities including power boxes, building doors, roofs, and any visible equipment will be painted a color selected from the latest national color charts that best allows the facility to blend into the background.
- All new roads will be designed and constructed to a safe and appropriate standard, "no higher than necessary," to accommodate intended vehicular use. Roads will follow the contour of the land where practical. Existing roads which are used to support oil and gas activity and that are in eroded condition or contribute to other resource concerns will be brought to Bureau of Land Management (BLM) standards within a reasonable period of time.
- Final reclamation of all oil and gas disturbance will involve (a) recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography and (b) revegetating all disturbed areas.

**The following are examples of BMPs to be considered on a case-by-case basis. They do not comprise an all-inclusive list:**

- Consider placing raptor-perch avoidance devices on all new power lines and existing lines that present a potential hazard to raptors.
- Consider burying power lines and flow lines in or adjacent to access roads.
- In developing oil and gas fields, consider centralizing all production facilities to avoid tanks and associated facilities on each well pad.
- The use of submersible pumps will be considered, especially in VRM Class II or III areas.
- The use of partial or completely below-grade wellheads will be considered in VRM Class II or III areas.
- Multiple wells will be drilled from a single well pad wherever feasible.

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<sup>1</sup> Please note that this list is not inclusive of all BLM BMPs.

- Noise reduction techniques and designs will be considered to reduce noise from compressors or other motorized equipment.
- Seasonal restrictions on public vehicular access will be evaluated where there are wildlife conflicts or road damage/maintenance issues.
- Avoid the placement of production facilities on hilltops and ridgelines.

## **I.2 STANDARD OPERATING PROCEDURES<sup>1</sup>**

- No construction or routine maintenance activities shall be performed during periods when excessive ruts would be created because the soil is too wet to adequately support construction equipment.
- Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste-disposal site. "Waste" means all discarded matter, including human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
- The holder shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation.
- The holder shall restore drainages, to the greatest extent possible, to the original bank configuration, stream bottom width, and channel gradient. Loose soil, fill, and culverts shall be removed from drainage channels.
- The holder shall protect existing telephone, telegraph, and transmission lines, roads, trails, fences, ditches, and like improvements during construction, operation, maintenance, and termination of the system. Holder shall not obstruct any road or trail without the prior approval of the authorized officer. Damage caused by holder to utilities and improvements shall be promptly repaired by holder to a condition which is satisfactory to the authorized officer.
- In areas where grading is necessary, the holder shall recontour the disturbed area and obliterate all earthwork by removing embankments, backfilling excavation, and grading to reestablish the approximate original contours of the land on the right-of-way.
- After site restoration, holder shall construct waterbars along graded areas of the right-of-way as required by the authorized officers.
- The holder shall 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 shall immediately report the incident, in writing, to the authorized officer 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 shall secure the services of a registered land surveyor or a BLM cadastral surveyor to restore the disturbed monuments and references using surveying procedures found in the *Manual of Surveying Instructions for the Survey of the*

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<sup>1</sup> Please note that this list is not inclusive of all BLM SOPs.

*Public Lands in the United States*, latest edition. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the BLM cadastral surveyors or other federal surveyors are used to restore the disturbed survey monument, the holder shall be responsible for the survey cost.

- Permittees may not leave unattended personal property on public lands administered by the BLM for a period of more than 48 hours without written permission of the authorized officer, with the exception that vehicles may be parked in designated parking areas for up to 14 consecutive days. Unattended personal property is subject to disposition under the Federal Property and Administrative Services Act of 1949 as amended.
- Cans, rubbish, and other trash shall not be discarded, buried, or dumped on public lands or related waters. Wet garbage such as egg shells, orange peels, leftover solid food, bones, melon rinds, etc., must be carried out. Trash cleanup at campsites and day use areas will include all litter or discarded items including small items such as bottle caps and cigarette butts.
- Washing or bathing with soap is not permitted in tributary streams, springs, or other natural water sources. Dishwater must be strained prior to dispersal. Dishwater and bathwater may not be dumped within 100 feet of streams, springs, or other natural water sources. Only biodegradable soap may be used.

No camping is permitted within 300 feet of a known prehistoric or historic site. No camping is allowed within cultural sites or archaeological resources as defined in ARPA.

- No camping is permitted within 300 feet of a water source other than perennial streams unless prior authorization is received from the authorizing officer.
- Personal sanitation and disposal of human waste is not permitted within 200 feet of a water source, trail, or campsite. Human waste will be deposited in a cat hole (six inches deep) and covered with soil. Groups of eight or more people are required to dig a trench to accommodate the group size and to consolidate the waste to one area.
- Acts of nature present risks which the permit holder assumes. The user is responsible for inspecting and locating campsite and immediate adjoining area for dangerous trees, hanging limbs, possibility of flash flood or wildfire, and other hazardous conditions. Permits and permit fees are not guaranteed against such acts of God, including inclement weather and difficult trail condition. The use of rock-climbing equipment to access archaeological sites is not allowed. Using a safety rope as an aid along a hiking route is permissible.
- All riding and pack animals must be fed certified weed-free feed for 48 hours in advance of and for the duration of the trip on public lands.
- Riding and pack animals may not be tied for more than one hour to live trees.
- Livestock shall not be tied, hobbled, or picketed for more than one hour within 300 feet of a natural water source other than perennial streams.
- All animals will be under control en route and in camp to protect wildlife, other livestock, and range forage.
- Corrals located on public lands may not be available for public or permittee use. Prior authorization is required for the use of such corrals.
- No climbing or rappelling is allowed over petroglyphs.

- On climbing and rappelling sites, no permanent protection (bolts or fixed pitons) will be used other than the minimum necessary to rappel.
- Camping is permitted and encouraged in well-used campsites. Backpacker camping is not allowed within a mile of the San Juan River in either Grand Gulch or Slickhorn Canyon.
- No in-canyon fires (no charcoal fires or fires from wood harvested on site or brought into the canyons) for warming or cooking in all Cedar Mesa Canyons, including Grand Gulch.

Best management practices and other standard operating procedures described in this appendix are measures designed to assist in achieving the RMP objectives. The BMPs are dynamic and should not be interpreted as specific direction at the same level as the RMP decisions. These BMPs are selected and implemented as necessary, based on site-specific conditions, to meet resource objectives for specific management actions.

This appendix does not provide an exhaustive list of BMPs. Additional BMPs may be identified during an interdisciplinary process when evaluating site-specific management actions. BMPs may also be updated as new technology emerges. Applicants may also suggest alternate practices that could accomplish the same intended result. Implementation and effectiveness of BMPs need to be monitored to determine whether the practices are achieving the RMP goals and objectives. Adjustments could be made as necessary to ensure goals and objectives are met, as well as to conform to changes in BLM regulations, policy, direction, or new scientific information.

As warranted and necessary, the standard operating procedures and guidelines for all treatment methods identified in the 2007 Record of Decision, Vegetation Treatments Using Herbicides Final Programmatic EIS as outlined in its corresponding Appendices B and C would be utilized.

Dispersed vehicle camping would be allowed only in previously disturbed areas within 150 feet of designated routes (on each side of a centerline).