Attachment B

Operator Committed Practices

APPENDIX B

OPERATOR-COMMITTED PRACTICES

Existing Jonah project National Environmental Policy Act of 1969 (NEPA) documents (Bureau of Land Management [BLM] 1998, 2000a) provide various programs and policies that would be implemented to protect the environment during the development and operation of the proposed Jonah Infill Drilling Project (JIDP). Unless otherwise noted, each of the measures identified in this appendix have been agreed to by all the Operators currently working in the Jonah Infill Drilling Project Area (JIDPA). The 15 air quality-related measures listed at the very end of this document have been committed to by EnCana Oil & Gas (USA), Inc., but not yet agreed to by any of the other Operators.

Many of these environmental protection measures would be included as Conditions of Approval (COAs) in this ROD. However, by additionally including them as Operator-committed practices, the various Operators have made a commitment to implement them throughout the life-of-project (LOP), and the impact analyses provided in the JIDP EIS take into consideration the implementation of these measures based on this commitment.

Where Operator-committed practices differ from and are less rigorous than those provided in previous NEPA documents, the reason for the change is identified. If deemed appropriate by the applicable regulatory agency, the more stringent measure will be imposed.

Some of the Operator-committed practices are outside the jurisdiction of BLM. These practices are identified as *italicized text*.

In addition to Operator-committed environmental protection practices, the various JIDPA leases often contain one or more stipulations that obligate the leaseholder. These lease stipulations are mandatory and address a number of issues, including but not limited to seasonal and area restrictions for raptor nests, greater sage-grouse leks and nesting habitat, unstable soils, steep slopes, and controlled surface occupancy (see FEIS Appendix A). These lease-specific stipulations may be duplicated by the more general measures listed below.

Exceptions to Operator-committed practices may be granted if a thorough analysis by the BLM determines that the resource(s) for which the measure was developed would not be unacceptably impacted by the proposed project, or if the Operator can demonstrate to the satisfaction of the Authorized Officer on a case-by-case basis that the required mitigation or practice would not be technically or economically feasible, or that another method would create less environmental impact.

To assure compliance with the Operator-committed practices stipulated in the FEIS, this ROD, and in site-specific APDs and ROWs, each Operator will provide qualified individuals to oversee construction and drilling operations and to consult with the BLM on a case-by-case basis, as necessary, during field development.

All of the proposed Operator-committed practices identified in this section will be implemented on all federal lands and minerals within the JIDPA. Development activities on all lands would be conducted in accordance with all appropriate federal, state, and county laws, rules, and regulations.

PRECONSTRUCTION PLANNING AND DESIGN MEASURES

1. Implementation of site-specific projects would be contingent on BLM receiving, for approval/acceptance, the following plans: APD and ROW Surface Use Plans, Plans of Development, and other site-specific plans/reports (e.g., road and well pad design plans, cultural clearances, special status species clearances, etc.); Transportation Plan, Reclamation Plan, and Hazardous Materials Management Summary (see FEIS Appendices DP-A, DP-B, and DP-C). The above plans may be prepared by Operators for the JIDPA or may be submitted incrementally with each APD, ROW application, or Sundry Notice.

2. Approval of individual project components (i.e., wells, roads, pipelines, and ancillary facilities) would be contingent on completion and acceptance of a site-specific cultural resource literature search, Class III inventory report, and, as necessary, paleontological inventory; threatened, endangered, proposed, and candidate (TEP&C) and BLM Wyoming sensitive (BWS) species surveys; greater sage-grouse lek and nesting clearance; raptor nest clearance; and any other clearances that are justified for scientific data collection and pertinent to a given project.

3. Operators would include in APD, ROW, or other appropriate permit applications a discussion of site-specific mitigation and environmental protection measures and a map showing specific locations where these measures would be implemented. Final locations for these measures would be confirmed by BLM and the Operators following on-site inspections of project locations.

4. Operators would obtain all necessary federal, state, and county permits, including necessary Spill Prevention and Control Countermeasure Plans (SPCCPs) and Storm Water Pollution Prevention Plans (SWPPPs), to ensure that project development occurs in an environmentally responsible manner.

5. *EnCana Oil & Gas (USA) Inc., BP America Production Company, and potentially other Operators would voluntarily implement an off-site mitigation program in part to offset potential impacts resulting from the project. As currently identified, these projects may entail pronghorn migration corridor protection; greater sage-grouse habitat preservation, protection, and enhancement projects; raptor protection; recreational resource augmentation; conservation easement development; air quality improvement and Air Quality Related Values (AQRV) projects; on-the-ground reclamation research with an emphasis on sagebrush; and cultural resource projects. Potential program projects may be proposed by the public, BLM, state agencies, grazing permittees, or other entities. Final approval for projects on BLM-administered lands would rest solely with the BLM. See EnCana Appendix 1, Voluntary Compensatory Mitigation Proposal.*

AIR QUALITY

6. *Operators would treat primary access roads (e.g., Luman Road, Windmill Road, Burma Road, and North Jonah Road), and heavily used resource roads as necessary during high use periods, with dust suppressants (e.g., magnesium chloride) and would water construction sites and well pad access roads as necessary to control fugitive dust during the summer.*

7. *No open burning of garbage or refuse would be allowed at the well sites or other facilities. Any open burning would be conducted under the permitting provisions of Chapter 10, Section 2 of the Wyoming Air Quality Standards and Regulations.*

8. *Necessary air quality permits to construct, test, and operate facilities would be obtained from the Wyoming Department of Environmental Quality/Air Quality Division (WDEQ/AQD). All internal combustion equipment would be kept in good working order.*

9. *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).*

10. *Operators would cooperate with WDEQ in determining regional oxides of nitrogen (NO_x) emission levels.*

11. *Operators would continue to encourage contractors and employees to obey speed limits and support local law enforcement officials in enforcing speed limits (i.e., 35 miles per hour [mph]) to reduce fugitive dust concerns, as well as for human health and safety reasons.*

12. *EnCana Oil & Gas (USA) Inc., BP America Production Company, and potentially other Operators would cooperate with the implementation of any WDEQ-mandated air quality monitoring program or emissions control program.*

TOPOGRAPHY

13. Operators would incorporate in their Surface Use Plans and Plans of Development the procedures contained in Standard Practices, Best Management Practices, and Guidelines for Surface-Disturbing Activities, guidelines for road construction contained in BLM Manual 9113 (BLM 1985, 1991), and project-specific requirements in the Transportation and Reclamation Plans for this project (FEIS Appendices DP-A and DP-B).

14. Unnecessary topographic alterations would be mitigated by avoiding, where practical, steep slopes, rugged topography, and ephemeral/intermittent drainages and by minimizing the size of disturbed areas.

15. Upon completion of construction and/or production activities, Operators would restore the topography to near pre-existing contours at well pads, roads, pipelines, and other facility sites. The Operators will comply with the requirements of all WDEQ and U.S. Environmental Protection Agency (EPA) stormwater erosion control permitting practices.

16. No well pads, roads, pipelines, or other facilities would be built within 300 feet of the edge of Sand Draw or within the tall sagebrush areas associated with this drainage, except for crossings that would be done at right angles to the channel, where practical. The number of crossings also would be minimized.

GEOLOGICAL/PALEONTOLOGICAL RESOURCES

17. At the Operator's discretion, 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.

18. 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 may be required to ensure that significant paleontological resources are avoided or recovered during construction.

19. If paleontological resources are uncovered during surface-disturbing activities, Operators would suspend all operations that would further disturb such materials and would immediately contact the BLM, 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.

20. Contractors and their workers would be instructed about the potential of encountering fossils and the steps to take if fossils are discovered during project-related activities. The illegality of removing vertebrate fossil materials from federal lands without an appropriate permit would be explained.

SOILS

21. Operators would adhere to the reclamation guidelines presented in BLM 2004. Adverse impacts to soils would be mitigated by minimizing disturbance; avoiding construction with frozen soil materials; avoiding areas with high erosion potential (e.g., unstable soils, dunal areas, slopes greater than 25%, floodplains), where practical; 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 practical; using appropriate erosion and sedimentation control techniques including, but not limited to, diversion terraces, riprap, and matting; and promptly revegetating disturbed areas using native species. Temporary erosion control measures such as temporary vegetation cover; application of mulch, netting, or soil stabilizers; and/or construction of barriers may be used in some areas to minimize wind and water erosion and sedimentation prior to vegetation establishment. Specific measures and locations would be identified in Surface Use Plans, Plans of Development, or SWPPPs prepared during APD and/or ROW application processes.

22. Pipeline ROWs would be located to minimize soil disturbance. Where practical, mitigation would include locating ROWs adjacent to access roads to minimize ROW disturbance widths or routing pipeline ROWs directly to minimize disturbance lengths; direct-line routes may be preferable in areas with high well pad densities.

23. Appropriate erosion control and revegetation measures would be employed. Grading and landscaping would be used to minimize slopes, and water bars would be installed on disturbed slopes in areas with unstable soils where seeding alone may not adequately control erosion. Erosion control and revegetation efforts would be monitored by the BLM and Operators and augmented, as necessary, to control erosion and ensure successful establishment of native vegetation.

24. Sufficient topsoil or other suitable material to facilitate revegetation would be segregated from subsoils during all construction operations requiring excavation and would be returned to the surface upon completion of operations. Soils compacted during construction would be ripped and tilled as necessary prior to reseeding. Cut-and-fill sections on all roads and along pipelines would be revegetated with native species.

25. To the extent practical and necessary, Operators would plan new ground-disturbing activities for periods when soils are not frozen and would work with the BLM on appropriate construction actions in the event that they are proposed for periods when soil frost depths exceed 6.0 inches.

26. Operators would revegetate all disturbed sites as soon as practical following disturbance.

27. *Operators would restrict off-highway vehicle (OHV) activity by employees and contract workers.*

28. 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.

29. *Reviews of erosion control structures, culverts, reclamation, etc., would be made by Operator personnel as required by SWPPPs and WDEQ or EPA regulations.*

WATER RESOURCES

30. *Operators would comply with U.S. Army Corps of Engineers (COE) requirements when conducting operations in wetlands, riparian areas, open water areas, and ephemeral or intermittent drainages, where practical.* Where ephemeral or intermittent channels would be crossed by roads, culverts or low-water crossings would be installed at all appropriate locations as specified in the BLM Manual 9112 – Bridges and Major Culverts (BLM 1990) and Manual 9113 – Roads (BLM 1985, 1991). Channels would be crossed perpendicular (at right angles) to flow, where practical, and all stream crossing structures would be designed to carry the 25-year discharge event or other capacities as directed by BLM.

31. *All non-recycled water used in association with this project would be obtained from Wyoming State Engineer's Office (WSEO)- approved groundwater wells.*

32. *Operators would adhere to guidelines specified in SPCCPs.* Any spill or accidental discharge of hazardous material would be remediated. An orientation would be conducted by 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.

33. Erosion-prone areas (e.g., drainages) or high-salinity areas would be avoided where practical, and necessary construction in these areas would be done in the late summer, fall, and winter (prior to soil freezing) to avoid runoff periods. Proper containment of oil and produced water in tanks, drilling and fracturing fluids in tanks or reserve pits, and the location of staging areas for equipment storage away from drainages would prevent potential contaminants from entering surface waters.

34. Prudent use of erosion control measures, including diversion terraces, riprap, matting, temporary sediment traps, and water bars, would be employed as necessary. Interceptor dikes or waterbars would be used to control surface runoff generated at well pads, where necessary. Erosion control and construction methods would be described in APD and ROW plans, if necessary. If water is discharged into an established drainage channel, the rate of discharge would not exceed the capacity of the channel to convey the increased flow without creating erosion induced channel adjustments. Waters that do not meet applicable state or federal standards would be evaporated, treated, or disposed of at an approved disposal facility.

35. Operators would construct reserve pits with 2 feet of freeboard in cut areas or in compacted and stabilized fill. The subsoil material at proposed pit locations would be inspected to assess soil stability and permeability and whether reinforcement and/or lining are required. Prior to installation of reserve pit liners and/or fluids, reserve pits may be inspected by BLM personnel. Unlined earthen reserve pits would be used only after BLM evaluation of the pit location for distance to surface waters, depth to useable groundwater, soil type and permeability, and containment fluid content indicate no potential adverse effects to water resources.

36. If reserve pit leakage is detected, Operators would apply appropriate mitigation techniques in consultation with the BLM.

37. All 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 Wyoming Oil and Gas Conservation Commission (WOGCC) and the BLM.

38. Channel crossings by pipelines would be constructed so that the pipe is buried at least 4 feet below the channel bottom.

39. Channel crossings by roads and pipelines would be constructed perpendicular to flow.

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

41. Disposal of all water (hydrostatic test water, stormwater, produced water) would be done in conformance with WDEQ/Water Quality Division (WQD) (1993), BLM *Onshore Oil and Gas Order No. 7*, and WOGCC rules and regulations.

42. *Operators would prepare SWPPPs for all disturbances greater than 5 acres in size as required by WDEQ National Pollution Discharge Elimination System (NPDES) permit requirements.*

43. *Operators would implement SPCCPs if liquid petroleum products or other hazardous materials are stored on-site in sufficient quantities, in accordance with 40 CFR 112.*

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

45. To mitigate potential impacts caused by flooding during the LOP, construction in flood-prone areas would be limited to late summer, fall, or winter when conditions are generally dry and flows are low or nonexistent. Additional mitigation to lessen any impacts from flooding or high flows during and after construction would include the avoidance of areas with high erosion potential (i.e., steep slopes, floodplains, unstable soils); reestablishment of existing contours where practical; avoidance of areas within 500 feet of wetland edges, riparian areas, and open water, where practical; avoidance of areas within 100 feet of ephemeral drainages, where practical; and implementation of appropriate erosion and sediment control and revegetation procedures.

46. Increased sedimentation impacts to surface waters would be avoided or minimized through construction and erosion control practices approved with each authorization and through the prompt reclamation of disturbances.

47. *EnCana Oil and Gas (USA) Inc., BP America Production Company, and potentially other Operators would conduct complete water quality analyses as described in EnCana's Proposed Groundwater Monitoring Plan (e.g., pH, alkalinity, total dissolved solids [TDS], oil and grease, benzene) on all newly developed water wells less than 300 feet in depth. Additionally, annual water quality testing new and existing project-required water wells would be implemented to detect water quality changes, and in the event adverse changes are noted, Operators would work with the BLM and the WDEQ if necessary on developing and implementing appropriate corrective actions. Water well drilling and quality analysis reports would be submitted by October 1 of each year to the BLM Pinedale Field Office (PFO), WSEO, and WDEQ/WQD for review.*

NOISE

48. All engines and compressor exhaust stacks would be muffled and maintained according to manufacturers' specifications.

49. Construction, drilling, completion, testing, and production facility installation activities would be seasonally restricted proximal to active raptor nests during the nesting period and in greater sage-grouse breeding and nesting areas, unless this restriction is unnecessary based upon site-specific reviews and the BLM grants a waiver or modification.

50. Road use and travel pattern specifications would be designed, in part, to keep traffic to a minimum and to reduce noise impacts as identified in the Transportation Plan (FEIS Appendix DP-A).

VEGETATION

51. Herbicide applications would be kept at least 500 feet from known BWS plant species populations or other distance deemed safe by the BLM.

52. 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 sizes, etc.). Well pads and associated roads and pipelines would be located to avoid or minimize impacts in areas of high value (e.g., TEP&C or BWS species habitats, wetland/riparian areas).

53. Proper erosion and sediment control structures and techniques would be incorporated by Operators into the design of well pads, roads, pipelines, and other facilities. Revegetation using a BLM-approved, locally adapted seed mixture containing native grasses, forbs, and shrubs would begin in the first appropriate season following disturbance. Vegetation removed would be replaced with plants of similar forage value and growth form using the following procedures:

    - fall reseeding (September 15 to freeze-up), where feasible;
    - spring reseeding (post-thaw and prior to May 15) if fall seeding is not feasible;
    - deep ripping of compacted soils prior to reseeding;
    - surface pitting/roughening prior to reseeding;

- utilization of native cool-season grasses, forbs, and shrubs in the seed mix;
- interseeding of shrubs into an established stand of grasses and forbs at least 1 year after seeding the grasses and forbs;
- appropriate, approved weed control techniques;
- broadcast or drill seeding, depending on site conditions; and
- fencing of certain sensitive reclamation sites (e.g., riparian areas, steep slopes, and areas within 0.5 mile of livestock watering facilities) as determined necessary through monitoring.

54. Operators would implement the resource, mitigation, and monitoring measures found in the Transportation and Reclamation Plans (FEIS Appendices DP-A and DP-B).

55. Recontouring and seedbed preparation would occur immediately prior to reseeding on the unused portion of well pads and road ROWs and entire pipeline ROWs outside of road ROWs. In the event of uneconomic wells, Operators would initiate reclamation of the entire well pad, access road, and adjacent disturbed habitat as soon as practical. Reclamation would be monitored by the Operators and the BLM, as specified in the Reclamation Plan (FEIS Appendix DP-B), to determine and ensure successful and timely establishment of vegetation.

56. Traffic would be confined to the running surface of roads and well pads as approved in APDs and ROWs. Operators have and will continue to cooperate with the BLM to identify and prohibit use of two-tracks where ROWs have not been obtained.

57. Operators would monitor noxious weed and invasive non-native species of concern occurrence on the JIDPA and implement a noxious weed/non-native species of concern control program in cooperation with the BLM and Sublette County to ensure noxious weed and non-native species of concern 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 free of noxious weeds.

58. *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 areas, where practical.*

59. *Where wetlands, riparian areas, and ephemeral or intermittent stream channels must be disturbed, COE Section 404 permits would be obtained if necessary.*

WILDLIFE AND FISHERIES

The following practices would be applied for general wildlife protection.

60. Well pads, access roads, pipelines, and ancillary facilities would be located and designed to minimize disturbances to areas of high wildlife habitat value, including wetlands and riparian areas.

61. Areas with high erosion potential and/or rugged topography (i.e., steep slopes, dunes, floodplains, unstable soils) would be avoided, where practical.

62. Removal or disturbance of vegetation would be minimized through construction site management (e.g., by utilizing previously disturbed areas, and existing ROWs where practical, designating limited equipment/materials storage yards and staging areas, vegetation scalping), and Operators would adhere to all reclamation guidelines presented in the Reclamation Plan (FEIS Appendix DP-B).

63. Operators, in consultation with representatives from BLM, Wyoming Game and Fish Department (WGFD), U.S. Fish and Wildlife Service (USFWS), and other interested groups such as area livestock operators, would adhere to the Wildlife Monitoring/Protection Plan for this project (BLM 1998: Appendix D) as annually updated (TRC Mariah 2004). The plan would be incorporated into the Operator field operations manual or handbook, a copy of which would be kept on-site in the JIDPA or with Operator personnel when on-site.

64. To minimize wildlife mortality due to vehicle collisions, Operators would continue to advise project personnel regarding appropriate speed limits (i.e., 35 mph) in the JIDPA, and roads would be reclaimed as soon as possible after they are no longer required. Some existing roads in the area may be closed and reclaimed by Operators as authorized by BLM. Potential increases in poaching would be minimized through employee and contractor education regarding wildlife laws. If violations are discovered, the offending employee or contractor would be disciplined and may be dismissed by Operators and/or prosecuted by WGFD.

65. Reserve, workover, and evaporation pits and other areas that contain hydrocarbons would be adequately protected to prevent access by migratory birds and other wildlife.

66. Firearms and dogs would not be allowed on-site during working hours. Operators would enforce their existing drug, alcohol, and firearms policies.

67. To protect plant populations and wildlife habitat, project-related travel would be restricted to established project roads; no off-road/ROW travel would be allowed, except in emergencies.

68. Wildlife-proof fencing would be utilized on reclaimed areas if it is determined that wildlife species and/or livestock are impeding successful vegetation establishment.

69. ROW fencing associated with this project would be kept to a minimum, and fences, where necessary, would meet BLM and WGFD specifications for facilitating wildlife movement.

70. Potential impacts to fisheries and wetland or riparian areas would be minimized by using proper erosion control techniques (e.g., water bars, jute netting, rip-rap, mulch). Construction within 500 feet of open water, 300 feet of Sand Draw, and 100 feet of other intermittent or ephemeral channels would be avoided, where practical. Channel crossings for roads and pipelines would be constructed during periods of low or no flow (i.e., late summer or fall). All necessary crossings would be constructed perpendicular to flow. No surface water or shallow groundwater in connection with surface water would be utilized for the project.

71. Operators would implement policies designed to control poaching and littering and would notify all employees (contract and company) that conviction of a major game violation could result in

disciplinary action. Contractors would be informed that any intentional poaching or littering within the JIDPA may result in dismissal.

The following practices would be applied for raptors.

72. Operator coordination with BLM, USFWS, and WGFD would be conducted for all mitigation activities related to raptor, TEP&C, and BWS species (and their habitats), and all permits required for relocation, removal, and/or establishment of raptor nests would be obtained.

73. Well pads, pipelines, and associated roads would be selected and designed to avoid disturbance to known active raptor nest sites, where practical.

74. Raptor nest surveys would be conducted within a 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.

75. 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-mile radius of all active raptor nests, except ferruginous hawk nests, for which the seasonal buffer would be 1.0 mile. (An active raptor nest is defined as a nest that has been occupied within the past 3 years.) The seasonal buffer distance and applicable exclusion dates 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. Routine maintenance or emergency health and safety activities would be allowed on existing well pads.

76. Well pads, roads, ancillary facilities, and other surface structures requiring repeated human presence would not be constructed within 825 feet of active raptor nests (2,000 feet for bald eagles), where practical. Facility construction in these areas would require specific approval from the BLM.

77. Operators would notify the BLM, USFWS, and WGFD immediately if raptors are found nesting on project facilities and would cooperate with the appropriate agencies as necessary to erect artificial nesting structures.

The following practices would be applied for black-footed ferret.

78. Where practical, surface disturbance in all prairie dog towns would be avoided.

79. Specific requirements for black-footed ferret surveys are no longer specified since the entire JIDPA is included within an area identified by the USFWS as no longer requiring surveys. However, if black-footed ferrets are observed, no further project-specific surface disturbance would occur to the prairie dog complex in which the ferret(s) were observed.

The following measures would be applied for greater sage-grouse, and these measures may be modified, with Operator approval, to facilitate participation in ongoing greater sage-grouse studies.

80. Operators would avoid all surface disturbance (including pipelines) within 0.25 mile of active greater sage-grouse leks.

81. Permanent high-profile structures such as buildings and storage tanks would not be constructed within 0.25 mile of an active lek.

82. Greater sage-grouse nest surveys would be implemented during the nesting season (April 1–July 31) by a qualified biologist prior to the start of construction activities in identified greater sage-grouse nesting habitat within 2.0 miles of active leks, and if an active greater sage-grouse nest is identified, surface-disturbing activities would be delayed until nesting is completed.

83. Operators would avoid optimal greater sage-grouse nesting habitats, where practical. Optimal nesting habitat is defined as areas with sagebrush heights of 20–31 inches and cover of 15–25% and an understory (grasses and forbs) cover of >15%.

84. EnCana Oil and Gas (USA) Inc., BP America Production Company, and potentially other Operators would avoid all drilling and construction activities during the greater sage-grouse strutting period (March 1–May 15) on areas within 1.0 mile of active leks.

85. Operators would utilize directional drilling to access resources beneath the 0.25-mile active greater sage-grouse lek buffers if reserves beneath these locations are deemed economic.

86. Operators would utilize directional drilling to access resources beneath the 600-foot wide (or tall sagebrush-dominated) buffer associated with the Sand Draw protection areas if deemed economic.

87. Operators would cooperate in ongoing greater sage-grouse studies in the area.

88. Operators would cooperate with the WGFD on existing/new greater sage-grouse habitat improvement efforts within Upland Game Bird Management Area 7 (e.g., water developments).

89. To further mitigate potential adverse effects to breeding and nesting greater sage-grouse on the JIDPA, 0.5-mile facility-free buffers would be applied to greater sage-grouse lek 7 south of the JIDPA for as long as Operators continue to hold the leases for these areas. No features requiring repeated human presence would be built within this area.

LIVESTOCK/GRAZING MANAGEMENT

90. Reclamation of nonessential areas disturbed during construction activities would be accomplished in the first appropriate season after well completion. Nonessential areas include portions of the well pads not needed for production operations, the outslope portions of new road ROWs, entire pipeline ROWs outside of road ROWs, and all roads and associated disturbed areas at nonproductive well pads. Operators would repair or replace fences, cattleguards, gates, drift fences, and natural barriers that are damaged by development actions to maintain current BLM standards. Cattleguards would be used instead of gates for livestock control on most road ROWs. Livestock would be protected from pipeline trenches, and livestock access to existing water sources would be maintained.

91. BLM, in coordination with livestock permittees, would monitor livestock movements, especially regarding any impacts to livestock from roads or disturbance from construction and drilling activities. Operators in consultation with the BLM will take appropriate and reasonable measures to correct any adverse impacts, if they occur.

92. All pits containing fluids would be fenced to exclude livestock.

CULTURAL RESOURCES

93. Operators would follow the procedures established by the BLM National Programmatic Agreement/Wyoming State Protocol Agreement (ratified April 1998) for cultural resource management and regulation contained within 36 CFR 800 and would either avoid, protect, or mitigate cultural resource properties.

94. Operators would halt construction activities in the area of concern if previously undetected cultural resource properties are discovered during construction. The BLM would be notified immediately, and consultation with the Wyoming State Historic Preservation Office (SHPO) and/or the Advisory Council on Historic Preservation (ACHP) would be initiated to determine proper mitigation measures pursuant to 36 CFR § 800.13 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.

95. If areas of religious importance, traditional cultural properties, or other sensitive Native American areas are identified in affected areas, BLM would consult with affected tribes and, in further consultation with Operators, would identify potential impacts and determine appropriate mitigative treatments on a case-by-case basis.

96. Operators in cooperation with the BLM would conduct an educational program to inform employees and contractors about the regulations concerning cultural resource management and artifact collection.

97. All recognized eligible sites, areas of Native American concern, and other recognized sensitive areas would be avoided as much as practical during development permitting. Impacts that cannot be eliminated by avoidance would be mitigated on a case-by-case basis through BLM-approved and SHPO-approved methods. Mitigation may include data recovery (including excavation) and/or Native American consultation/coordination for development in sensitive cultural resource areas, and costs for these efforts would be borne by Operators.

98. Construction in archaeologically sensitive areas during frozen ground conditions would not normally be implemented; exceptions would be considered by the Authorized Officer on a case-by-case basis.

99. Operators would work with the BLM, SHPO, and ACHP in developing and implementing appropriate Programmatic Agreements, Research Designs/ Unanticipated Discovery Plans, Treatment Plans, and/or Cultural Resource Management Plans for the protection of cultural resources in the JIDPA.

SOCIOECONOMICS

100. Operators would encourage the use of local or regional workers.

101. Where feasible, Operators would schedule concentrations of project traffic, such as truck convoys or heavy traffic flows, to avoid periods of expected heavy traffic flows associated with recreation.

102. Travel and parking would be restricted to access roads and on-site parking areas.

103. Where feasible, Operators would plan proposed development operations so that seasonal restrictions do not create a significant reduction in the level of development causing seasonal workforce layoffs (i.e., work continues at a consistent rate year-round).

LAND STATUS/USE/PRIOR RIGHTS

Mitigation to prior rights would include the following:

104. limiting drilling operations to lands leased or owned by the Operators;

105. locating wells away from known underground cables;

106. regrading and repairing roads, as necessary, in areas damaged by project activities;

107. reestablishing a level compacted surface where pipelines cross existing roads;

108. advance identification and flagging of all existing ROWs that would be crossed by proposed pipelines and roads;

109. backhoe and hand excavating at pipeline crossings until the exact locations of existing underground lines have been determined; and

110. restoring native vegetation as soon as practical.

111. Roads and pipelines would be located adjacent to existing linear facilities wherever practical; direct-line routes may be preferable in areas with high well pad densities.

112. Portions of existing roads not included in the new road ROW and not needed by other users would be reclaimed and revegetated by Operators, following Class III cultural resource surveys.

113. Adequate turnouts on new crowned-and-ditched roads would be built to provide access to existing two-tracks and other undeveloped roads.

RECREATION

114. Operators would inform their employees, contractors, and subcontractors that long-term camping (greater than 14 days) on federal lands or at federal recreation sites is prohibited.

115. Operators would direct their employees, contractors, and subcontractors to abide by all state and federal laws and regulations regarding hunting.

VISUAL RESOURCES

116. EnCana Oil and Gas (USA) Inc., BP America Production Company, and potentially other Operators would utilize existing topography to screen roads, pipeline corridors, drill rigs, wells, and production facilities from view, where practical.

117. Operators would paint all aboveground production facilities with appropriate colors (e.g., Shale Green or other environmental color required by BLM) to blend with adjacent terrain, except for structures that require safety coloration in accordance with Occupational Safety and Health Administration (OSHA) requirements.

TRANSPORTATION

118. Operators would implement the resource, mitigation, and monitoring measures found in the Transportation Plan (FEIS Appendix DP-A). Annual transportation planning would occur in coordination with efforts required for the Pinedale Anticline Project (BLM 2000b) to identify the minimum road network necessary to support annually proposed project activities; Operator construction and maintenance responsibilities; and road-specific dust abatement, construction, and surfacing requirements.

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

120. All new and improved roads not required for routine operation and maintenance of producing wells or ancillary facilities would be reclaimed as directed by the BLM, State Land Board, or private landowner. These roads would be permanently blocked, recontoured, reclaimed, and revegetated by Operators, as would disturbed areas associated with permanently plugged and abandoned wells. Reclamation of existing two-track roads would be considered on a case-by-case basis.

121. On a case-specific basis, centerline survey and construction designs would be submitted to and approved by the BLM prior to road construction.

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

123. Special arrangements would be made with the Wyoming Department of Transportation to transport oversize loads to the project area. Otherwise, load limits would be observed at all times to prevent damage to existing road surfaces.

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

125. 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.

126. When practical and feasible, the Operators would maximize the use of temporary fresh water pipelines during late spring, summer, and early fall from water wells to active drill sites to decrease water hauling needs.

HEALTH AND SAFETY/HAZARDOUS MATERIALS

127. Operators would utilize WDEQ-approved portable sanitation facilities at drill sites.

128. Operators would place warning signs near hazardous areas and along roadways.

129. Operators would place dumpsters at each construction site to collect and store garbage and refuse.

130. Operators would ensure that all refuse and garbage is transported to a state-approved sanitary landfill for disposal.

131. Operators would institute a Hazard Communication Program for its employees and would require subcontractor programs in accordance with OSHA (29 CFR §1910.1200).

132. 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.

133. SPCCPs would be written and implemented in accordance with 40 CFR §112.

134. Chemical and hazardous materials would be inventoried and reported in accordance with 40 CFR §335. If quantities exceeding 10,000 pounds or the threshold planning quality 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.

135. 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.

136. Operators would adhere to existing internal health and safety policies and procedures.

137. During routine operations, Operators would not release fracturing fluids and condensates into flare pits or surrounding areas; they would be confined in lined pits or tanks.

ADDITIONAL AIR QUALITY MEASURES

Unlike the measures listed in the preceding sections, the following 15 air quality-related measures have been committed to by EnCana Oil and Gas (USA), but not yet agreed to by any of the other Operators in the JIDPA.

1. Regular equipment maintenance, including emissions checks, and regular maintenance of roads would be conducted as necessary throughout the LOP.

2. *Operators would treat primary access roads (e.g., Luman Road, Windmill Road, Burma Road, and North Jonah Road in the JIDPA) and heavily used resource roads as appropriate with dust suppressants (e.g., magnesium chloride) and would water construction sites and well pad access roads as necessary to control fugitive dust during the summer.*

3. *No open burning of garbage or refuse would be allowed at the well sites or other facilities. Any open burning would be conducted under the permitting provisions of Chapter 10, Section 2 of the Wyoming Air Quality Standards and Regulations.*

4. Necessary air quality permits to construct, test, and operate facilities would be obtained from the Wyoming Department of Environmental Quality/Air Quality Division (WDEQ/AQD). All internal combustion equipment would be kept in good working order.

5. *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).*

6. *Operators would cooperate with BLM and WDEQ in determining regional oxides of nitrogen (NO_x) emission levels.*

7. *Operators would continue to encourage contractors and employees to obey speed limits and support local law enforcement officials in enforcing speed limits (i.e., 35 miles per hour [mph]) to reduce fugitive dust concerns, as well as for human health and safety reasons.*

8. *Operators would cooperate with the implementation of any legally enforceable WDEQ-mandated air quality monitoring program or emissions control program.*

9. *By January 1, 2006, EnCana commits to achieve average drilling rig emissions equivalent to Tier 1 standards or better from 100% of EnCana operated or contracted drilling rigs in the Jonah Field.*

10. *By January 1, 2007, EnCana commits to achieve average drilling rig emissions equivalent to Tier 2 standards or better from 100% of EnCana operated or contracted drilling rigs in the Jonah Field.*

11. *By January 1, 2009, EnCana commits to achieve average drilling rig emissions equivalent to Tier 3 standards or better from 100% of EnCana operated or contracted drilling rigs in the Jonah Field.*

12. *By January 1, 2006, EnCana commits to capture on average through flareless completion techniques, 90% of the hydrocarbon and combustion emissions that would have previously been emitted by flaring during flowback procedures on EnCana operated natural gas wells.*

13. *Where practical and feasible, EnCana commits to reduce traffic and surface disturbance and associated dust and tailpipe emissions by utilizing hub and spoke drilling and completion techniques, centralized fracturing operations, and centralized condensate and water collection.*

14. *Wherever possible, EnCana commits to vertically drill all EnCana operated natural gas wells in the Jonah Field in order to reduce associated NO_x, SO_2, and PM_{10} emissions.*

15. *Where feasible, EnCana commits to establish plant cover for all areas disturbed by EnCana's operations within an agreed time period using accelerated and focused reclamation efforts, stabilized soil stockpiles, using mulch and geotextile fabrics to stabilize soils, if necessary, and watering areas under construction to reduce fugitive dust emissions.*

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